World Congress On Special Needs Education
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WCSNE-2014 Proceedings

Edited By
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Galyna A. Akmayeva
Richard Cooper
Message from the Steering Committee Chairs

Welcome to the World Congress On Special Needs Education (WCSNE-2014)! The WCSNE-2014 provides opportunity for academicians and professionals to bridge the knowledge gap and to promote research esteem.

We received 510 papers from 89 countries of which 132 papers were accepted after the first review and 110 papers were finally accepted for presentation, 5 Posters, and 4 Workshops. The WCSNE-2014 double blind review method was adopted to evaluate each submission and selected papers of the conference will appear in high impact International Journals published by Infonomics Society.

Many people have worked very hard to make this conference possible. We would like to thank all who have helped in making WCSNE-2014 a success. The Steering Committee and reviewers each deserve credit for their excellent job. We thank all the authors and workshop organisers for their contribution and our Keynote Speakers: Professor Mark Salzer, Professor Richard Cooper and Professor Julie for agreeing to participate in WCSNE-2014. We also like to acknowledge our appreciation to the following organisations for their sponsorship and support: National Association for Adults with Special Learning Needs (NAASLN), Temple University, Harcum College, Infonomics Society, Worldwide Interactive Network (WIN), Canadian Teacher Magazine, United Airlines, American Airlines and e-Missions.net. It has been great pleasure to serve as the Steering Committee Chair. The long term goal of WCSNE is to build a reputation and respectable conference for the international community.

On behalf of the WCSNE-2014 Executive members, we would like to encourage you to contribute to the future of WCSNE as authors, speakers, panellists, and volunteer conference organisers. We wish you a pleasant stay in Philadelphia, and please feel free to exchange ideas with other colleagues.

Professor Charles A. Shoniregun
Professor Richard Cooper
WCSNE-2014 Steering Committee Chairs
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Keynote Speakers
Keynote Speaker 1

Mark Salzer, Ph.D. is a Professor and Chair of the Department of Rehabilitation Sciences at Temple University. He is also the Principal Investigator and Director of the Temple University Collaborative on Community Inclusion of Individuals with Psychiatric Disabilities, a research and training center funded by the National Institute on Disability and Rehabilitation Research. Dr. Salzer has been the Principal Investigator on numerous federally-funded research grants (NIH, SAMHSA, NIDRR) and has published more than 80 articles and book chapters on the delivery of effective community mental health and rehabilitation services to individuals with psychiatric disabilities.

Title: Supporting the Academic Success and Inclusion of College Students with Mental Health Disabilities

Abstract: This plenary will explore the post-secondary educational success of college students with mental health disabilities. Current research, based on the social model of disability, will be presented to enhance the understanding of the challenges these students face and novel strategies that can be taken to enhance their educational attainment.
Keynote Speaker 2

Professor Richard Cooper is the Director of Disability Services at Harcum College, Bryn Mawr, Pennsylvania. He is also the Founder and Director of the Center for Alternative Learning and Learning disAbilities Resources, organizations dedicated to providing educational and social support to children and adults with learning disabilities, problems and differences. He is an internationally recognized lecturer and expert on alternative instructional techniques and tools for reading, writing, math, and study skills. He has authored a number of books and articles describing the use of these techniques and tools. He speaks nationally and internationally about a wide range of learning problems and instructional techniques to help both children and adults improve their skills. He maintains a private practice through which he provides assessment, counselling and tutoring of children and adults. He was a member of the Observer Delegation from the United States to the 1997 UNESCO Conference on Adult Education in Hamburg, Germany. He is a founding member and current co-president of the National Association for Adults with Special Learning Needs. Most recently, he co-authored a book entitled Test Anxiety, A Student Manual and Teacher's Guide (2009).

Title: How Can We Be So Different?

Abstract:

Have you ever wondered why someone did not get the joke or the double meaning of a word? Have you ever argued with someone about a color or what you witnessed? These and many other differences in what we think and experience will be demonstrated and explained by the keynote speaker, a learning specialist who has worked with thousands of people who perceive, process and communicate differently. So differently that people refer to them as weird, strange, or eccentric. You will leave the lecture hall with a new appreciation of the diversity of human thought and experience.
Keynote Speaker 3

Julie Allan is Professor of Equity and Inclusion at the University of Birmingham, UK and Visiting Professor at the University of Borås in Sweden. Her work encompasses inclusive education, disability studies and children's rights and is both empirical and theoretical and she has published nine books and several articles and book chapters on these areas. Her recent books include "Psychopathology at school: Theorizing mental disorder in education" (with Valerie Harwood and published by Routledge) and "Rethinking inclusive education: the philosophers of difference in practice" (published by Kluwer). Professor Allan has been Advisor to the Scottish Parliament, the Welsh Assembly and the Dutch and Queensland Governments and has worked extensively with the Council of Europe and with Ministers of Education in Europe.

Title: The challenges of diversity in education

Abstract: Professor Allan will consider how the education of an increasingly diverse school population is experienced globally as a significant challenge, with teachers, policymakers and politicians all reporting struggling to avoid excluding particular groups of children. While the range of diversity is itself diverse, including, for example special needs, disability, ethnicity and social background, children's behavioral problems appear to present the greatest difficulty and are a source of considerable concern. Professor Allan will examine the troubling nature of difference and some of the exclusionary pressures that impact upon it. She will outline an approach, based on ideas from the so-called 'philosophers of difference' to engaging policymakers and politicians in thinking about difference - differently - and to rethinking the task of inclusive education.
Workshops
Invited Workshop: Subculture of the Undereducated

This workshop will provide participants with a framework for understanding the subculture of the undereducated, (individuals whose education was substandard or limited in some way). The attitudes, behaviors and norms of the undereducated will be compared with those of the educated (teachers and others). This sociological analysis outlines the norms, attitudes and behaviors that the presenter has frequently found among students from educationally disadvantaged environments.

In the second part of the workshop, the presenter will offer techniques that he has used successfully to bridge the gaps, reduce the tensions and misunderstandings, and resolve conflicts between these two subcultures. He will also address the need to train staff at in all departments of schools, colleges and universities to enable them to work together to help retain the undereducated students and enable their success.

By the end of the workshop, participants will be able to:
- Identify the attitudes, behaviors and norms of the subculture of the undereducated
- Compare the subcultures of the educated and uneducated so as to know how to reduce misunderstanding and conflicts;
- Use techniques to train staff and students to reduce the tensions and minimize conflicts between the educated and the undereducated.

Organiser: Richard Cooper, Harcum College, Pennsylvania, USA
Founder and Director of the Center for Alternative Learning
Workshop 1: Collaborating on the Diverse Needs of Gifted Students on the Autism Spectrum

This workshop seeks to overview the unique learning needs of gifted children on the Autism Spectrum. Whether teachers are programming for them in a contained or mainstream setting, participants will be provided with an overview of the gifted learner on the spectrum and be provided with specific instructional strategies to meet the academic and sensory needs of gifted learners on the Autism Spectrum. We will also explore the intersection of sensory needs of both of these diagnoses. We will continue with a brief discussion around the newest recommendation that Asperger's be moved to the gifted spectrum verses the Autism spectrum it currently falls under, and the implications of the DSM diagnosis on programming.

We will examine how to assess the greatest needs and strengths of gifted students on the spectrum, and how to use these strengths to help teach students to cope with their needs. We will examine successful programming strategies including how to allow students to have input in their programming to create successful outcomes. We will specifically look at the emotional, social, academic, environmental and sensory challenges when programming with these students, as well as how to teach self-direction and leadership skills. The last portion will be allocated for discussion and sharing.

Organisers: Barbara Lazarou and Leigh Little
Peel District School Board, Ontario, Canada
Workshop 2: Structured Learning for the Unstructured

Many students who have learning or attention problems manifest poor organizational skills and appear to lack structure. This presentation will provide participants with techniques to help such learners. Participants will receive handouts that they can use to increase structured learning. While most learners can structure their studying to master the course material, students who have learning problems seem to “spin their wheels trying this and that” and make little progress. Their lack of structure often results in inefficient and ineffective results studying and learning. This workshop will offer techniques to help learners who have problems with organization and structure. The presenter will discuss and demonstrate techniques and learning tools that he has found effective in helping students improve their basic academic and study skills. The techniques include activity checklists, time use guides, material organizers, labeling tools and storage strategies. The workshop will include for participants to experiment with these tools and techniques.

Organiser: Richard Cooper, Harcum College, Pennsylvania, USA
Founder and Director of the Center for Alternative Learning
Workshop 3: Helping all children be successful in mathematics: not just some of them

In this workshop, participants will have an opportunity to see and participate in numerous activities which are specifically developed for the mathematics classroom. Many are ones which can be used in the self-contained as well as the pull out type class. The game of mathematical concepts and special needs will be addressed in this session. The number of children with autism is rising daily, and in the workshop special attention will be given to provide ideas to be able to have the autistic child successful in math. No, the child might not be an 'Enstein" but he/she can do much if the mathematics concept is approached.

In today's society, everyone is faced with dealing some with money. Special children are often taken advantaged of or even shorted. The concept of money can be taught to everyone and we will present some of the ways. Measurement is another difficult concept but we will try to provide ideas to make it easier for the participant to explain and easier for the student to be successful with the tasks.

By using the works of individuals such as Nagel, Constant and Ullman, the authors have been able to develop many ways to teach math in a positive way for everyone. Each had the philosophy that the classroom is for all students to learn and not a place for some to be just 'kept'. Each believed that children could learn if approached in the manner in which is best for the child. Each were advocates for PL94-142 in their own rights and their believes have been a cornerstone of this workshop.

Organisers: Barba Aldis Patton and Estella De Los Santos
University of Houston-Victoria, Victoria, Texas, USA
PhD and Doctorate Consortium

The idea of writing a research paper or developing a topic of research interest that can lead to a PhD / Doctorate degree or proposal is always an endless thinking of where, when, why, what and who. Therefore, becoming an experienced researcher and writer in any field or discipline takes a great deal of practice. The Consortium has the following objectives:

- Provide a supportive setting for feedback on current research that will stimulate exchange of ideas;
- Guide on the future research directions;
- Promote the development of a supportive community of scholars and a spirit of collaborative research;
- Contribute to the conference goals through interaction with other researchers and conference events.

The PhD and Doctorate Consortium highlights possible solutions in response to the lack of competence demonstrated by young researchers and PhD and Doctorate students, and the understanding of what contributes to knowledge gap.

Organiser: Charles A. Shoniregun, Infonomics Society, UK and Ireland
Sessions
Session 1: Accessible World

Level of Emotional Intelligence (EI) of Mothers of Children with Intellectual Disability and its Relationship with Their Level of Stress and Coping Strategies Used by Them
(Authors: P. Maheshwari, K. Sampat)

Teachers’ Representations of Special Education Reform in Québec
(Author: Philippe Tremblay)

Teachers’ Openness in Utilizing Real Contexts in Teaching a Foreign Language
(Author: Lata Lakhani)
1. Introduction

Gottman in his book ‘The Heart of Parenting: How to Raise an Emotionally Intelligent Child’ said, “Good parenting requires more than intellect. Good parenting involves emotion” [14]. Greater than IQ, one’s emotional awareness and ability to handle feelings will influence his/her success and happiness in all aspects of life, including family relationships. For parents, this quality of Emotional Intelligence is a way of being sensitive of one’s children's feelings, and being competent to empathize, pacify, and direct them.

Gibson who researches in EI and parenting said that managers have used Emotional Intelligence skills for their personal growth and enhancement [9]. He assumes that the same EI skills can help parents strengthen parent-child bonds and bring out the best in their children. Similarities exist between leadership and parenting; therefore it is easy to see why Emotional Intelligence can be vital for parents, too.

Cary Cherniss (EI expert) mentioned, “Parents are the ‘leaders’ in a family, and so I would think that much of the research and theory on EI in leaders (e.g., managers and executives in organizations) would be relevant and informative (to parenting too)” [6].

Parenting is a challenging process. However, if one is a parent of a child with special needs, he/she unquestionably has bigger challenges to triumph over than one could ever think [15]. Stress caused due to challenges emerging from parenting children with Intellectual Disability may lead to lowered well being of parents. Matthews & Zeidner [18] suggested that coping with stressful encounters is central to Emotional Intelligence. Goleman [13] stated in his blog, “Emotional Intelligence should help you handle stress better, for several reasons. Self-awareness can help you notice when you are becoming stressed, which in turn make you better able to calm down before your reaction builds to an unmanageable level.”

Raising a child with an Intellectual Disability requires emotional strength and flexibility [3]. According to Chuck Wolfe (EI expert and trainer), knowledge of Emotional Intelligence can contribute to the planning, preparation and actual situation involving care giving for loved ones who no longer can live an independent life style. He mentioned that whenever someone is confronted with an emotionally challenging situation, such as dealing with children who struggle intellectually, it can only help to be mindful of all emotions involved (personal [7]. This means that it is vital to one’s advantage to be aware, attentive to, and take care of the array of emotions involved in the process of parenting children with Intellectual Disability. Once aware, mothers can handle emotions in a better way and possessing Emotional Intelligence Competencies can really be an asset in doing so in an efficient way, thus leading to better well being. Ken Nowack (EI expert) affirmed that parents who are high in emotional and social competence (self-management skills, empathy, and stress management) might report higher QOL and report less stress than those low in EI [16].

The present study aimed at ascertaining the level of Emotional Intelligence and the level of Stress in Mothers of Children with Intellectual Disability and studying the interrelationship between them. The study also intended to find out if the coping strategies employed by the mothers of children with Intellectual Disability varied according to their level of Emotional Intelligence.

2. Method

Sixty mothers of children with Intellectual Disability were selected by purposive and snowball sampling from Mumbai (India). The selection criteria for the mother was that she had to be the primary caregiver to the child, a homemaker, married and living with the husband, her child should be under 18 years of age and have Intellectual Disability (except for profound level) as a primary condition with no concurrent disability and she could have another children but without a disability.

Three self constructed scales namely, Emotional Intelligence scale, Stress Scale, Coping Strategies Scale (with an open ended inquiry) were used to study the different variables. Emotional Intelligence
Scale was formulated based on the Emotional Competence Framework [11] that covered four main domains; Self Awareness, Self Management, Social Awareness and Relationship Management and 17 sub domains of EI. The items were framed on each competence enlisted under each domain. The scale consisted of 83 items out of which 61 items were framed positively whereas 22 were framed negatively which needed to be scored reversely. The minimum score possible was 83 maximum possible score was 332. Reliability analysis was done using Cronbach’s Alpha on 60 cases and this tool was found to have a high internal consistency ($\alpha = .911$). The domains were found to have the Cronbach’s Alpha ranging from .600 to .804.

Based on the review of literature, the stress tool was formulated. It consisted of the following domains: Physical, Emotional, Cognitive, Family Relations, Finance, Future of the child, Recreational and Personal Satisfaction. The scale consisted of 55 items out of which 43 items were framed negatively whereas 12 were framed positively which needed to be scored reversely. The minimum score possible was 55 maximum possible score was 220. Cronbach’s alpha was computed and the tool was found to have a high internal consistency ($\alpha = .950$). The domains were found to have the Cronbach’s Alpha ranging from .602 to .887.

The Coping Strategies Scale was formulated based on the tools developed by Maheshwari [17]; Carver [5] and Folkman & Lazarus [8]. The scale consisted of 8 sections, each section representing a coping strategy as follows: Confronting, Seeking Social Support, Engaging in Physical/Cognitive Activity, Self Controlling, Avoidance/Withdrawal, Planning, Suppression of Competing Activities and Positive Reappraisal. The scale consisted of 37 items out of which 11 items were framed negatively whereas 26 items were framed positively. The negative items were scored reversely. The scale also had open ended inquiry to explore the coping strategies employed by mothers of children with Intellectual Disability prior to beginning the scale and at the end of the scale too. These open ended questions were asked to better understand the quantitative data gathered from the list of coping strategies. Cronbach’s Alpha was calculated and the tool was found to have a high internal consistency ($\alpha = .784$). The domains were found to have the Cronbach’s Alpha ranging from .536 to .755.

Quantitative analysis was done using SPSS package.

3. Results

Results revealed that out of the total sample, a substantial number of participants perceived themselves in the average levels of Emotional Intelligence (22). Across the domains of Emotional Intelligence though majority of the participants perceived themselves in the high level, a large number of participants perceived themselves in the average level in the domains of Self Awareness (26), Self Management (22) and Relationship Management (29). One participant each was found to be in the low level in the domains of Social Awareness and Relationship Management.

Competencies that were found to be most essential in literature for the mothers to take care of their children with Intellectual Disability, like Emotional Self Awareness (22), Accurate Self Assessment (35), Self Confidence (17), Emotional Self Control (26), Adaptability (27), Initiative (30), Empathy (13), Conflict Management (28), Team work and Collaboration (33), and Communication (21), large number of mothers perceived themselves having average level of these competencies.

There were a few participants who saw themselves as being low in the sub domains of Accurate Self Assessment(5), Self Confidence (3), Emotional Self Control(4), and Adaptability(2). A large number rated themselves as low in the sub domains of Conflict management (22), Influence (20), and team work and collaboration (14).

With regard to level of stress 18 participants viewed themselves as having an average level of Stress. Across the domains of Stress, the means of two domains namely, Financial and Future of the Child fell in average category. Forty out of sixty mothers reported high level of stress in relation to the future of the child, 12 mothers reported high level of stress in the Financial domain, while 20 mothers perceived themselves experiencing average level of stress in the Emotional domain.

Further it was found that the participants belonging to the high Emotional Intelligence group used positive reappraisal, problem focused coping strategies more than the participants in the average Emotional Intelligence group. It emerged from the findings that among the high Emotional Intelligence group, the percentage of participants having rated coping strategies of Confronting (52.6%), Self Controlling (68.4%), Suppression of Competing Activities (44.7%), Seeking Social Support (50%), and Positive Reappraisal (76.3%) as used often was more than the percentage of participants in the average Emotional Intelligence group. Further, it was striking to note that overall, though Avoidance/Withdrawal was used often by the participants, none of them found it highly successful. Strong correlations were also found between the usage and success rate of different coping strategies employed by mothers of children with Intellectual Disability.

A moderate significant negative relationship ($r = -.518$, $p = .000$) was found between Emotional Intelligence and Stress of mothers of children with Intellectual Disability, thus indicating that higher the level of Emotional Intelligence, lower was the stress perceived. Domain wise correlation revealed that the
EI domains of Self Awareness and Self Management had a moderate significant negative relationship with Family Relations, Emotional, Social and Recreational and Life Satisfaction domains of Stress. The EI domain of Social Awareness was found to have a weak significant negative relationship only with the Life Satisfaction domain of Stress. The Relationship Management domain of EI was found to have a moderate significant negative relationship with Life Satisfaction and Family Relations domains of Stress. It was striking to note that the Financial and Future of the Child domains of Stress had no relation with any of the EI domains (Refer Table 1).

4. Discussion

Emotions form an integral and inevitable part of any human being. Varied emotions come along with all life experiences. These life encounters are impossible for an individual to face without experiencing emotions attached to it. Thus it becomes important to possess skills to handle one’s emotions, simply put; possessing Emotional Intelligence competencies becomes vital for each individual. Emotional Intelligence skills not only help one understand and manage one’s emotions and thereby actions but it also helps to gauge and handle others emotions. Thus EI skills become important for all - a professional, student, teacher, spouse or a parent.

Table 1. Relationship between domains of Emotional Intelligence and domains of Stress (n=60)

<table>
<thead>
<tr>
<th></th>
<th>Physical</th>
<th>Emotional</th>
<th>Cognitive</th>
<th>Family Relations</th>
<th>Financial</th>
<th>Future of the child</th>
<th>Social and Recreational</th>
<th>Life Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Awareness</td>
<td>Pearson</td>
<td>-.385**</td>
<td>-.486**</td>
<td>-.347**</td>
<td>-.531**</td>
<td>-.225</td>
<td>-.114</td>
<td>-.430**</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>002</td>
<td>000</td>
<td>007</td>
<td>000</td>
<td>083</td>
<td>385</td>
<td>001</td>
<td>001</td>
</tr>
<tr>
<td>Self Management</td>
<td>Pearson</td>
<td>-.385**</td>
<td>-.597**</td>
<td>-.418**</td>
<td>-.487**</td>
<td>-.212</td>
<td>-.171</td>
<td>-.477**</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>002</td>
<td>000</td>
<td>001</td>
<td>000</td>
<td>104</td>
<td>192</td>
<td>000</td>
<td>.000</td>
</tr>
<tr>
<td>Social Awareness</td>
<td>Pearson</td>
<td>-.201</td>
<td>-.138</td>
<td>-.098</td>
<td>-.228</td>
<td>-.091</td>
<td>-.064</td>
<td>-.161</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>124</td>
<td>294</td>
<td>454</td>
<td>.079</td>
<td>.489</td>
<td>626</td>
<td>219</td>
<td>.041</td>
</tr>
<tr>
<td>Relationship Management</td>
<td>Pearson</td>
<td>-.220</td>
<td>-.370**</td>
<td>-.198</td>
<td>-.414**</td>
<td>-.034</td>
<td>-.174</td>
<td>-.271</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>091</td>
<td>004</td>
<td>129</td>
<td>.001</td>
<td>.797</td>
<td>183</td>
<td>.037</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note. **. Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).

Emotional Intelligence can never be zero, as that is an indicator of an emotional disorder, average Emotional Intelligence is what is minimally required by all individuals, however, for mothers of children with Intellectual Disability it becomes essential to possess above average to high

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level of Emotional Intelligence competencies as they have more stresses and challenges to tackle. They not only need to manage their own emotions but also manage and handle their child’s emotions on a constant basis.

Management of emotions becomes so very vital with multiple roles and responsibilities to be juggled by a mother. Emotional Self Awareness is one of the basic competencies of the Self Awareness domain; it includes recognizing one’s emotions, reasons of experiencing them and their effects. According to Goleman [13], self awareness can help one notice when he/she is becoming stressed, which in turn makes him/her better able to calm down before his/her reaction builds to an unmanageable level. Thus for a mother of a child with Intellectual Disability, being aware of her own emotions can be a very useful tool in not only managing her responses but it could also help in handling the child’s emotions and emotions of others towards the child.

Parenting a child with Intellectual Disability brings a gamut of emotions, more of the negative ones. It is indeed a challenging situation because the mother has to handle her emotions, child’s emotions as well as others’ responses towards the child. Controlling and coping with all these emotions are of utmost importance. According to Goleman [12], self management is one of the key abilities of EQ. It is the skill through which the person chooses the emotions he/she wants - typically to be able to transform negative draining emotional states into positive productive ones [4]. An individual who manages her emotions well is able to recover more quickly from stress arousal [13].

The mother has to be constantly involved with the child to help him grow, have a regular communication with his therapists, effectively solve conflicts arising in the family, encouraging the family members to work in collaboration to give the best to the child, and establishing strong and secure bonds with family members and other mothers of children with Intellectual Disability. This brings the attention to another domain of emotional intelligence, the relationship management which includes competencies like Team work and Collaboration, Conflict Management, Communication and others. Each of these competencies are essential for the mother of a child with intellectual disability as she has to be constantly working on one hand, with members of the family, different professionals and on the other hand she has to handle the conflicts that arise due to the varied attitude of people in relation to the child. Often children with Intellectual Disability are not treated at par with other children. During those times, the mother has to be proactive in finding what is belittling her child and take measures to minimize it. As a homemaker too, she has many roles to perform and it is natural that conflicts occur in the family. However, a mother high on Conflict Management knows how to tackle with these effectively without letting self or the child be harmed in the process. For all these to be handled effectively the most important skill needed is that of effective communication. People who display the Communication competence are efficient in the give-and-take of emotional information, tackle with difficult issues candidly, listen well and welcome sharing information wholly, and promote open communication and stay receptive to bad news as well as good. This competence builds on both managing one’s own emotions and empathy; a healthy dialogue depends on being attuned to others’ emotional states and controlling the impulse to respond in ways that might worsen the situation [11].

The above discussion clearly indicates that for a mother of a child with Intellectual Disability, it is vital to be on the high level of both – personal and social competence. There is a need to enhance several EI competencies in mothers of children with Intellectual Disability in the present study. It is also essential to note that all the Emotional Intelligence competencies are interlinked. Emotional Self-Awareness is a prerequisite for effective Self-Management, which in turn predicts greater Relationship Management. A secondary pathway runs from Self-Awareness to Social Awareness (particularly Empathy) to Relationship Management. Managing relationships well, further, depends on a foundation of Self-Management and Empathy, each of which in turn requires Self-Awareness [11].

Several research findings [1]; [19] have revealed that individuals with higher Emotional Intelligence show higher levels of effective problem-solving and are more proficient at stress management, decision-making and faster mood recovery after disturbing and stressful experience.

5. Implications

Emotional Intelligence competencies are teachable and learnable [2]. According to Goleman [10], emotional competencies are not innate talents, but rather learned capabilities that must be worked on and can be developed to achieve outstanding performance. He further believes that individuals are born with a general Emotional Intelligence that determines their potential for learning emotional competencies. Thus it is wise and understandable that the mothers can be trained to handle their emotions effectively to better cope with the stresses and challenges they face in their day to day life in taking care of their children with Intellectual Disability. For a mother of a child with Intellectual Disability, it is vital to be on the high level of both – personal and social domain of emotional
Intelligence. Based on the findings, guidelines were formulated to direct training programs for mothers of children with Intellectual Disability. Guidelines focused on enhancing the Emotional Intelligence competencies of mothers at both levels, personal and social. At the personal level enhancing self-related competencies like emotional self-awareness, accurate self-assessment, self-control, and self-confidence were emphasized while at the social level empathy, communication and conflict management, team work and collaboration were focused on.

6. Conclusion

Emotions form an integral and indispensable part of any human being. Being a mother is itself a blessing, with strong emotions attached to this mother – child relationship. For a mother of a child with Intellectual Disability too, this relationship is special, rewarding yet challenging. From this research, it was noted that substantial number of mothers perceived themselves at the average or even low levels of some EI competencies that are of utmost importance for these mothers. Review of literature and discussion does show the advantages of possessing these competencies. The lives of these mothers comprise of more challenges and stresses different from that of mothers of normal children. Thus it is justified that these mothers should be possessing higher levels of Emotional Intelligence competencies to better cope with the stresses. This would help the mothers keep their stress levels in check and experience a better Quality of Life, subjective well being and a higher sense of life satisfaction. Since large number of the mothers scored at an average level on the competencies seen as essential for a mother with a child with Intellectual disability, it is clearly visible from this research that there is a need to enhance these Emotional Intelligence competencies through training. This would help the mothers recognize and manage their own emotions in a better manner, ultimately transferring these skills in understanding the child’s emotions and having more cordial and fulfilling relationship with significant others. Thus it would be true to say that Emotional Intelligence would be an asset to these mothers as it would help them enhance their overall Quality of Life, which would in turn benefit the child and help him grow. Thus this study has been an attempt to establish the need of Emotional Intelligence in the mother of children with intellectual disability and consolidate the mother – child bond and relationship.

7. References


Teachers’ Representations of Special Education Reform in Québec

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Abstract

The perceptions of high school language, science, and mathematics teachers in Québec were examined with respect to special education reform favoring the inclusion of special needs and academically challenged students. A questionnaire was administered to 240 Québec high school teachers in either regular or special education classes. Our results show that the teachers were generally highly critical of this new education policy, which was not well received. The majority of teachers believed that they received too many resources to the detriment of their other students. All of the teachers were in favor of limiting the number of special needs students per regular class; however, significant differences were observed between the regular and special education teachers in terms of their responses.

1. Introduction

Teachers’ perceptions play an important role in the success or failure of implemented reforms related to inclusion and its sustainability. We sought to evaluate the quality of special education policy in Québec in terms of the representations of high school language, mathematics, and science teachers and their view of the inclusion of special needs/learning challenged students in the regular classroom. The goal of this reform was essentially to place the school “at the service of the students based on an assessment of their individual needs by ensuring that this take place in the most natural setting possible for them, as close as possible to their place of residence, with emphasis on their integration within the regular classroom” (Ministère de l’Éducation du Québec [1]; author transl.)

Close to 18% of Québec public school students display behavior, learning, or intellectual exceptionalities (EBD or LD) and 2/3 are integrated into regular classes. In addition to inclusion, the Politique québécoise de l’adaptation scolaire put forward a non-categorical stance for students with learning difficulties, slight to moderate behavior difficulties, or a slight intellectual disability. For this student population referred to as “special needs students”; no diagnosis is required. The decision to provide special services ultimately lies in the hands of the school principal, following consultation with and assessment by a resource teacher to determine the need for an individual education plan (IEP) for specific intervention. In the first three years of high school, other than the regular classroom are part-time or full-time special education classrooms for students with difficulties. At the end of these three years, these students are generally referred to professional services.

In 2006, the Québec Ministry of Education called for an evaluation of its special education policy. The ensuing Rapport d’évaluation de la politique québécoise de l’adaptation scolaire (Gaudreau, Legault, Brodeur, Hurteau, Dunberry, Séguin and Legendre [2]) contained, however, few elements on the level of satisfaction or representations of the teachers, in terms of their support needs. The teachers were shown to be moderately satisfied with the response to their need for support, with one in ten unsatisfied and close to a third highly or totally satisfied. The general average level of satisfaction was 2.51/4 for high school teachers and 2.62/4 for special education teachers, with no statistically significant difference between these two averages.

Implementation of the reform was thus viewed as moderately conclusive by the authors of the report who emphasized a need for further support and training. Indeed, since the introduction of this reform, a notable decrease has been observed in terms of the participation of high school teachers in related training activities. The report also recommended an increased focus on the intervention plan and a closer evaluation of school board services.

2. Literature Review

As mentioned, teachers’ perceptions play a fundamental role in the implementation and sustainability of inclusive education. These perceptions vary, however, depending on the type of teacher. Studies have shown that high school teachers appear to be less favorable to inclusion than
A total of 246 high school language, math, and science teachers from the province of Québec participated in the study. For evaluation purposes, the participants were divided into three groups: regular (N = 118), special education (N = 106), and mixed (who worked in both types of classes) (N = 22).

Data were analyzed by means of SPSS, with a level of statistical significance of 0.05. Comparative analyses were also performed (ANOVA), as well as between-group analyses (Bonferroni test) and correlation analyses between items on the questionnaire (Pearson test).

5. Results

5.1. Policy

Our findings show that the teachers were generally highly critical of this inclusion reform, as confirmed by the amount of disagreement. Consequently, in the three groups under study (regular, special education, mixed), the teachers disagreed on average with the idea of inclusive education for the targeted population: The regular classroom is the best way to educate, socialize, and qualify special needs students (N = 242; M = 2.25/4; SD = 0.72), with no significant difference observed between the three groups of teachers (regular, special education, and mixed).

This statement correlated significantly with another item, Québec’s special education policy favors the academic achievement of EBD/LD students (N = 241), with a very close average (M = 2.35/4; SD = 0.70). The teachers thus had very mixed feelings regarding this reform.

5.2 Individualized learning classes

A difference was observed between the regular education teachers and their colleagues in the individualized learning classes on the likelihood of success of special needs students (EBD/LD) in the regular classroom. On the item Individualized learning classes are “for the lost causes” (N = 246), the average was 2.17/4 (SD = 0.82), which indicates that the teachers mostly disagreed with the statement. Statistical differences were however observed, with the regular education teachers expressing a higher level of disagreement compared to their peers in special education.

The same response was obtained for the item Individualized learning classes are the best way to teach all special needs students (EBD/LD) (N = 242;
M = 2.68/4; SD = 0.74), as the teachers agreed more with this affirmation. Once again, differences were observed between the teachers, as the regular teachers had a statistically less favorable response to the statement compared to their colleagues in special education.

Finally, the teachers disagreed with the affirmation EBD/LD students fare better in regular classes than in individualized learning classes (N = 227; M = 1.98; SD = 0.70). Again, differences were observed between teachers, as the special education teachers disagreed more with this statement than did their colleagues in the other two groups. The three items on individualized learning classes were correlated.

5.3 Resources

On this aspect, the teachers indicated that there lacked sufficient resources to effectively support EBD/LD students. Indeed, the response of all three groups of teachers was strongly negative to the affirmation We have sufficient resources to provide quality education for EBD/LD students (N = 245; M = 1.68/4; SD = 0.63). In contrast, however, the teachers mostly disagreed with the statement There are too many resources for EBD/LD students to the detriment of the other students (N = 244; M = 1.91/4; SD = 0.79). Furthermore, differences were observed between the regular education teachers and those in the other two groups, as there were more teachers in this group who believed that too many resources were provided for these students.

5.4 Students with behavior or learning difficulties

On the item EBD/LD students can succeed just as well as the other students in the regular classroom, the teachers expressed doubt that these students could succeed in the regular classroom. (N = 240; M = 2.19/4; SD = 0.77). There was also a strong consensus on restraining the number of EBD/LD students per class: The number of EBD/LD students per class should be limited (N = 246; M = 3.72/4; SD = 0.56). No statistical difference was observed between the three groups of teachers.

A similar response was observed for the affirmation Some EBD/LD students are just too difficult to educate in regular classes, as all three groups strongly agreed with this statement (N = 246; M = 3.58/4; SD = 0.60). This item correlated with the item EBD/LD students can succeed just as well as the other students in the regular classroom (N = 240; M = 2.19/4; SD = 0.77), which confirms their less than favorable opinion of EBD/LD students in this setting.

The presence of these students in the regular classroom appeared to generate opposite points of view. First, on the item Being around regular students provides EBD/LD students with positive social models (N = 235), on average, the teachers all generally agreed, although the response of the regular education teachers was significantly less favorable than was that of their colleagues in special education (M = 2.84/4; SD = 0.63). Second, on the item The presence of EBD/LD students in the regular classroom elicits a negative response from the other students, the teachers were once again mostly in agreement (N = 241; M = 2.49/4; SD = 0.68). Differences between teachers were observed, as the special educators agreed more with the affirmation compared to their colleagues in the regular and mixed groups. Finally, on the item The presence of EBD/LD students in my class calls for extra work on my part in terms of planning, workload. The presence of EBD/LD students appears to have an impact on the teachers’ workload. The teachers in our study were almost unanimous in their perception that these students were slower to learn: EBD/LD students take more time to perform the required tasks (N = 241; M = 3.89/4; SD = 0.59).

Specifically, the consensus among the teachers in our study was that this meant more work. The presence of EBD/LD students in my class requires that I spend more time grading (N = 243; M = 2.56/4; SD = 0.91). These two final affirmations were strongly correlated with no differences between the groups of teachers.

6. Discussion

Overall, we observed a certain level of disagreement regarding the current reform on inclusive education, although some positive effects on EBD/LD students were highlighted. Indeed, Québec’s reform received a less than lukewarm welcome on the part of teachers in this province. In addition, a consensus favored limiting the number of students with behavior or learning difficulties in the regular classroom, which ultimately translated to a greater use of special and individualized learning classes. The teachers in our study were doubtful that special needs students could in fact be included and were more in favor of “special” classes. These findings appear to be in agreement with those of Koutrouba, Vamvakari, and Steliou [8].
Regarding the effects of inclusive education, these are contradictory: there is a positive impact in terms of modeling the learners in the regular classroom, yet this setting may lead to a stigmatisation of EBD/LD students. Overall, the teachers believed that the presence of students with specific needs may actually have a negative impact on the other learners in the regular classroom (Koutrouba, Vamvakari, and Steliou [8]).

Studies show that “special” teachers are more optimistic toward students with behavior and/or learning difficulties (Brady and Woolfson [6]) but are less so toward their educational and social inclusion. The regular education teachers in our study were less inclined to believe that these students will succeed in the regular classroom and were thus more in favor of special education classes. Furthermore, these students did not learn at the same pace as the others, thus signifying more work for the teachers involved.

While the teachers in the regular classrooms were also more inclined to think that too many resources are provided for services to EBD/LD students, to the detriment of the other students, they did indicate a lack of resources for their students as a whole. Variables related to a lack of available material and human resources were associated with negative attitudes toward inclusion (Avramidis and Norwich [9]).

7. Conclusion

Eighteen of the 57 items on the questionnaire were not considered in this study. A subsequent study will analyze and present the results.

To conclude, our study confirms that teachers’ attitudes toward inclusive education have not been fully examined within the context of special education reforms in Québec. Further research must be conducted to broaden our understanding of the challenges of inclusive education for students with behavior, learning, or intellectual exceptionalities so as to equip schools to better address the issue.

8. References


Teachers' Openness in Utilizing Real Contexts in Teaching a Foreign Language

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Abstract

The study has its genesis in my experiences while teaching English and learning Arabic in Sultanate of Oman. It examines language teachers’ sensitivity and openness to use real events and weave them into the established context. A large part of the study was carried out as an MPhil research at Cambridge University, followed by additional data collected at Sultan Qaboos University in Oman. Findings reveal teachers’ repertoire to build a meaningful linguistic discourse around genuine classroom events and its significance in the process of languages-learning. The findings were further consolidated while learning Arabic as a foreign language where the best opportunities to practice language were created when the teacher was flexible enough to accommodate emerging situations into lessons in progress. The data also throw light on how such contexts can be utilized as springboards for practicing a language and how teachers are the key navigators for this process to take place.

1. Introduction

Innumerable real-life scenarios are encountered by teachers and learners in the course of a language lesson. Dealing with these situations consciously or unconsciously affects the process of learning as these little occurrences render themselves to become potential language learning contexts. Van Lier uses the term ‘hybrid’ events for these types of events and views the classroom as not a place to carry out determined routines, but a place where various elements interact [11]. Widdowson points out that classroom presentations and contrived stimulations to teach language are inadequate since they are artificial and often incomplete [13]. Thornbury and Meddings claim that there is no research evidence to suggest that a pre-determined agenda to teach language items matches the manner and order in which language is actually encountered [10]. It is more probably the case that language items emerge and are learnt the best around the real occurrence of the events. This strengthens the view that, events that actually happen in a language classroom are just as crucial to language learning as a highly engaging lesson. However, this, to a large extent, depends on how willing the teacher is, to allow this to intercept his lesson plan. If identified by teachers, real classroom situations probably afford language learning opportunities, leading to different orientations in the process, emphasizing different skills. Oral proficiency can be achieved by actively engaging in genuine conversations in the target language only [3], [5], [8].

Considering this premise in a classroom context, an examination of relevant literature helps formulate and pursue the following questions for this study:

- To what extent are teachers aware of real events happening around the lesson?
- How open or willing are they to accommodate these into their lesson?

This study examines the aforementioned issues against the backdrop of the planned lesson in the process. It mainly investigates ESL teachers’ position pertaining to these issues.

2. Methodology and Other Practicalities

Qualitative paradigm was deemed suitable to carry out the practicalities of this study, since it probes into the cognitive aspects of research participants towards classroom events. Data collected using two instruments were narrative in nature: field notes from observations and interview accounts from subjects. Non-participant observations of four ESL lessons at two language schools in Cambridge, UK and Ahmedabad, India were followed by open-ended interviews with 4 teachers from Europe, North America and India. A basic premise of this instrument ensued from ‘the inherent complexity of classroom life and the multiplicity of perspectives from which activities in any classroom may be viewed’ [9].
Context-specific interview-questions were formulated (see Appendix). Most of the questions were open-ended thus allowing respondents “to express themselves freely and expand on issues, but preventing aimless rambling” [14].

Transcribed audio-taped data were analyzed using the software QSR NVivo. NVivo’s graphical representation helped conceptualize the analysis by creating a layered model of the data.

3. Key findings

Findings can be summarized as below:

i. The more aware and accommodating of real events a teacher is, the stronger is learner-engagement in the ongoing lesson.

ii. Teachers are the key navigators to direct the course of the talk which results from the events. While teachers attach more importance to the events’ direct relevance to the lesson (its appropriateness) and outcomes, learners show interest in the change of topic/novelty introduced by the event and perceive it as more purposeful communication.

iii. Both ESL learners and teachers are sensitive to events which happen during lessons and bring them to the attention of one another consciously or unconsciously.

iv. Although teachers in general conveyed a strong adherence to the planned aspects of the lesson and preferred ‘straying within the lesson goals’, in cases where they stepped out of the planned lesson to allow communicative digressions, it often led to reinforce learning.

v. Despite the non-threatening roles adopted by teachers, their traditionally established images often prevented learners to initiate spontaneous conversations.

vi. To a large extent, teachers’ understanding of these events determined the course of spontaneous discourse. The decisions they made while dealing with various situations played a crucial role in shaping learners’ participation in conversations. The following factors determined teachers’ decision-making processes and learners’ reflexes when faced with various events:

- Learners’ cultures and prior education
- Types of learners
- Familiarity
- Lesson duration
- Syllabus, examinations, institutional expectations

These findings support previously held characterisations in L2 educational literature that unexpected events contain pedagogical value if manipulated in ways to suit the immediate contexts. The overall impression that emerged from the teachers’ comments during interviews shows a broadly similar pattern. Teachers however, seemed to feel more responsible in terms of accomplishing their tasks as they often remained pre-occupied with their lessons.

Besides constraints exercised by institutional authorities, it became apparent that teacher-training programmes also contributed in shaping teachers’ behaviours which influenced teachers’ classroom decisions. In a similar study carried out by Karen Johnson [4], pre-service EFL teachers tended to perceive continued learner initiations as off-task behaviour and a threat to instructional management. In such instances, they were more likely to ignore learner initiation to something in favour of maintaining control over the lesson and its context. Teachers in this study also voiced their concern regarding this issue. Their frustration on not being able to exploit some opportunities is reflected in the following comments:

T2: Sometimes one cannot immediately get out of the structured, more formal, and controlled and, I mean, within the training context, I think it is quite difficult for people to allow it.

T1: Lessons are very much ‘planned’ and neatly laid out or ‘assigned’ to individual teachers. Partly because of training, sometimes it is difficult to break free or to think on your own feet to do something differently. Everything has to be so well-timed...

These chimes with studies done on classroom discourse [6] which focus on how learner initiated discourses were treated as incidental digressions if they were not in consonance with the lesson.

To reconstruct the whole picture of teachers’ openness towards the events, whilst teachers manipulated these events with strong expectations of achieving better outcomes of their respective lessons, learners overwhelmingly expressed their pleasure in utilizing occasions to use L2 for real reasons and enhance fluency. Teachers’ decisions and actions were oriented towards establishing immediate connections with the lesson for two reasons: to reinforce the present...
learning and to pre-empt the derailment of the lesson plan.

By and large, these teachers seemed to hold the view that if given appropriate training or by developing awareness regarding how to exploit classroom circumstances into meaningful language-teaching/learning exercises where learners interact spontaneously due to the reality element which goes into it, learners’ second language learning anxieties can be minimised. The responsibility to bring this into practice was as much attributed to the administrative policies adopted by institutes as to the methodology of teaching English as L2. This emerges as an interesting variable in the study, considering the obsession with new approaches and methods which have steered the course of research in Foreign Language Learning. Also, it brings to the fore the fact that howsoever ‘communicative’ the methods be in principles, they still follow certain principles, which may blind the practitioners (teachers) towards manipulating the other dynamics of classrooms which might reinforce what is actually being executed in the form of a set lesson. This corresponds to certain extent, with Vygotsky’s [12] sociocultural theory where immediate context is paramount and from where interactions result as product of strong, acute perceptions turned into reciprocity of roles rooted in some common activity and also with, Long’s [7] interactionist theory, with its focus on negotiation of meaning in the arising situations in the course of learning L2. This study confirms the findings of other studies in indicating that some events/representations were not simply noticeable during the ongoing activity but a major element in the cognitive processes, resulting into observations either by them or teachers. From these viewpoints, it further appears that one of the challenges of future teacher training programmes is to equip the EFL teachers to incorporate learner initiations into their activities without perceiving such situations as a threat to the lesson.

However, it would be imprudent to make any generalisations by intending to resolve all issues in a single small-scale study like this, which leads me to speculate on the limitations of the present study next.

4. Limitations

Given the very small number of subjects involved in this study, it should be recognised that no generalisations are possible from a single set of data obtained in a context-specific case study like this. Considering the size of the study, its conclusions are tentative in contexts other than the present ones. Only 4 teachers were observed and interviewed for this study. In addition, my own conceptual tools used in the process may be coloured by the socio-cultural and academic background I come from [1]. It is too early to say that teachers can develop this repertoire since the study took place only within a limited context where ‘flexibility’ was not a big issue and teachers were given certain degree of flexibility in lessons. Only 4 teachers were observed and interviewed. Another concern is the frequency at which ‘events’ become springboards for spontaneous discourses, as that is dictated by multiple variables that operate in terms of culture and physical geographical environment. It seems implausible to suggest that appropriate pedagogy can be developed solely based on such generalizations.

Larger sample size and more geographical settings can help improve the results of the study. Replication of the study on a larger scale could also offer further insights into the issue, adding more reliability and depth to the findings. The use of qualitative method limited the scope of the investigation. A combination of both qualitative and quantitative approaches could have generated data with more dimensions. This also allows for triangulation of data.

5. Further Research and Conclusion

Despite its limitations, the results of this study point at promising directions. Among these is the need for continued exploration into the environmental dimensions of foreign language learning contexts. It could encourage teachers to step out of their rigid roles and be more sensitive and flexible in classroom scenarios. Moreover, research is warranted to scrutinize the usefulness of this idea in relation to the other skills - Reading, Writing and Listening, which will add to the existing research in this area.

Finally, the study attempts to highlight the need for teachers to respond to the dynamics of the classroom situations. Teachers, who are able to implement this, can make the learners feel like a valued member of class in the process where students make connections and negotiate meanings using real-world situations.

6. References

Appendix

Sample of questions asked to teachers (open-ended interviews):

Note: Questions were very context-specific and 'event-centred'.

1. What were you thinking when the learners were busy with the debate?
2. Why did you stop doing the brainstorming activity?
3. Did you notice anyone/anything as pointed out by the learners?
4. Why didn’t you discuss the point made by the learner?
5. What made you think of demonstrating the scripts on board?
6. Do you think they enjoy such interaction?
7. How did they respond to it according to you?
8. Why did you let the learners discuss the news instead of doing the role-play?
9. What stopped you from discussing it further?
10. How would you have reacted if there was more time in the lesson?
Session 2: Educational Foundations

Awareness and Practice of Environmental Education among Students of Secondary Schools in Ekiti State
(Authors: Adegun O. A., Adegoke P. A.)

Comparative Study of Remedial Math Students between the USA and the Middle East
(Author: Walid Dieb Al Wagfi)

Need for Teaching Nigerian Local Economic Activities in Social Studies
(Author: Flora O. Nkire)
Awareness and Practice of Environmental Education among Students of Secondary Schools in Ekiti State

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Abstract

Improper knowledge of environmental education is a serious challenge in Secondary Schools in developing countries. The study investigated the awareness and practice of environmental education among Secondary Schools in Ekiti State. The descriptive research design of the survey type was used for the study. The population consisted of all the students in the public secondary schools in the State. Multistage random sampling technique was used to select 1225 students from 35 Secondary Schools. Two research questions and two hypotheses were generated. A self-constructed questionnaire titled “Awareness and Practice of Environmental Education questionnaire (APEEQ) was used for data collection. The validity and reliability of the instrument was ensured. The data collected was analysed using Pearson Product Moment Correlation and t-test Statistics. The result revealed that the awareness and practice of Environment Education was moderately high in the study area. There is no significant difference in the awareness and practice of environmental education by male and female students while there is significant difference between the awareness and practice by students from rural and urban centre. It was recommended among others that students should be more exposed to environmental education and be encouraged to practice it. Also there should be special need for inculcation of environmental education especially in the rural area.

1. Introduction

The interaction between man and the environment had started since the existence of man on the earth’s surface. This interaction has brought about untold problems which continue to mount pressure constantly and persistently on man himself. There has been variety of real environmental threats which manifest itself in various forms and dimensions and effects of which are largely felt locally within us here. There is pronounced environmental degradation of various forms across the various ecological zones of Nigeria’s geo-political regions. In Ekiti State for instance it has been observed that there are the problems of flooding and sewage system, deforestation, bush burning, vehicular pollution, noise pollution, toxic waste, banned and expired hazardous drugs and chemicals, urban wastes, general urban infrastructural decay and quite more recently climate change as a result of global warming.

Secondary education among three tiers of Nigerian educational system occupies a very unique position. It absorbs the pupils from the primary schools while the tertiary institutions rely heavily on the products from secondary schools for their intakes. There appear however, multifarious problems facing secondary schools which make it environmentally unfriendly to students and to a large extent the teachers and other stakeholders in school administration. The problem of waste management appears to be a striking feature of the secondary school system. Litters of papers and empty water sachets are thrown around. Students appear not to use the dust bins appropriately even where they are provided. At the individual level, or as often referred to as personal environment, students in most cases may not take proper care of their body which includes hair, teeth, nails and their skins. This can be as a result of laziness and non-awareness towards personal health. At times, they do not bother to wash their hands after touching objects that could have come in contact with filths or germs. They indiscriminately eat fruits without washing them within and outside the school premises.

Observation also reveals that most schools appear trackless; the whole landscape is bare soil which is susceptible to erosion and in some cases gully erosion. The ideals of schools going green seems not to be so much with us possibly the school authorities do not involve students in the landscaping and planting of grasses, flowers, scrubs, and trees to protect the top soil. The general sanitation and water provision in schools are still not adequate, school compounds during the raining seasons are often weedy and filthy with students found taking drinking
water from wells and streams where tap water are not available. Most secondary schools appear to lack functioning toilets and lavatories because of lack of adequate running water. Some locations of schools are either in the swamp or a hilly terrain. Their problem of perennial flooding and gully erosion are a common sight of such school respectively.

However, secondary school students constitute a large percentage of the society; hence, their contribution to environmental pollution and degradation cannot be overemphasized. It is therefore very vital to find out the level and the degree of their awareness, alertness and their practical involvement towards environmental issues so as to effectively inculcate sound environmental principles through their learning skills and process.

2. Literature Review

The environment is defined by Douglas and Holland [5] as all the aggregate of all external forces, influences and conditions which affect the life, nature, behaviour and the growth, development and maturation of living organizations. Sarojimi is of the view that environment of an organism is made up of all those factors found in its surrounding that affect it [12]. Such factors include the place where the organism lives, the physical condition of the place which includes temperature, humidity, rainfall etc the food and the air the organism takes in. To Okebukola, Environmental Education is any form of education both formal and informal that will influence the attitude of people towards a sustainable use of resources of the environment [10].

Bruce K Environment opined that urban children should learn about the solid waste dilemma, air, water and pollution, whereas the suburb students should focus merely on their resources conservation [4]. Nkoya observed that high literacy level is related to high level of environmental awareness therefore, it is expected that there will be high level of awareness and use of environmental information within the literate strata [9]. Ugbona [13] and MC-Carty [8] reported the likelihood of the effectiveness of mass media, particularly the radio and television in creating awareness about public health and environmental issues.

Erubami and Young asserted that urbanization is a leading global environmental problem [7]. According to Allen [2] the success of many environmental management essentially refuse disposal efforts often lies in the degree to which the public accepts the ideas, but in the word of Akomolafe [1] it seems the culture of proper disposing of refuse is not yet imbibed.

3. Research Question

To investigate this study, the following research questions were raised
1. What is the level of environmental education practice among secondary school students?
2. What is the level of awareness of students towards environmental related issues?

3.1. Research Hypotheses

The following research hypotheses were generated for the study.
1. There is no significant difference between the awareness of students from rural and urban areas and their level of environmental education.
2. There is no significant difference between student’s gender and their level at awareness of environmental education.

4. Method

The study adopted the descriptive research design of the survey type. The population consisted of all the 184 public secondary schools spread across the 16 local government areas in the study area. Multistage random sampling technique was used to select the sample. A total of 35 schools were selected and 35 students were randomly picked from each school making a total of 1,225 students. The research instrument used was a self constructed questionnaire titled “Awareness and Practice of Environmental Education Questionnaire (APEQ)”. The face and content validity of the instrument was ascertained by experts in Educational Management and test and measurement. The reliability of the instrument was ascertained through the use of test and retest method. The correlation coefficient of 0.81 was obtained and the instrument was considered reliable. The instrument was personally administered and the data was analyzed using frequency counts and percentage for the research questions while the hypotheses was analyzed using the Pearson Product Moment Correlation Coefficient and t-test statistics. All the hypotheses were tested at 0.05 level of significance.

5. Result

Research Question 1:
What is the level of environmental education practice among secondary school students in Ekiti State.
To answer question 1, the scores of respondents were categorized into Low (20-50) and high (51-80) using ogive cumulative frequency curve. The range of scores, frequency counts and percentage are as presented in Table 1:

Table 1. The range of scores, frequency counts and percentage

<table>
<thead>
<tr>
<th>Level of Environmental Education Practice</th>
<th>Range of Score</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>20-50</td>
<td>605</td>
<td>49.4</td>
</tr>
<tr>
<td>High</td>
<td>51-80</td>
<td>620</td>
<td>50.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1225</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Min score = 20, max score = 80.

The above Table shows that 605 students representing 49.4% had low EE practice while 620 students representing 50.6% had high EE Practice. Result shows that the level of EE practice among students in the study area is moderately high.

**Research Question 2:**

What is the level of awareness of students towards environmental related issues?

Mean scores was used to categorize the subject into ‘Low’ and ‘High’ level of awareness as in Table 2.

Table 2. “Low” and “High” levels of awareness

<table>
<thead>
<tr>
<th>Level of Students Awareness of EE</th>
<th>Range of Scores</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>20-50</td>
<td>596</td>
<td>48.7</td>
</tr>
<tr>
<td>High</td>
<td>51-80</td>
<td>629</td>
<td>51.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1225</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 shows that 596 (48.7%) of the sample indicate Low Level of awareness of Environmental Education related issues while 629 (51.3%) show high Level of awareness. It then implies that the level of awareness of Environmental Education related issues is high.

**Hypothesis 1:**

There is no significant difference between the awareness of students from rural and urban areas and their level of environmental education.

The Table 3 revealed that t-cal 2.505 is greater than t-table 1.960 at df 1223. The null hypothesis is not accepted. This implies that there is significant difference between the awareness of students from rural and urban areas and their level of Environmental Education.

**Hypothesis 2**

There is no significant difference between student’s gender and their level of awareness on EE.

Table 4 shows that the t-tcal 0.032 is less than t-tab 1.960 at df 1223. The null hypothesis is accepted. This implies that there is no significant difference between students’ gender and their level of awareness of Environmental Education.

6. Discussion

This study revealed that the level of awareness and practice of environmental education in the study are high to certain extent. The difference in the low and high response is just very marginal. This shows that the students must have been exposed to environments values to certain extent such as good sanitation, personal health, waste management, environment sanitation and so on and an average number must have been putting them into use. The study of Olusanya [11] revealed similar result when he found out that environmental education practice was high in Edo-State. Whereas the result contradict the finding of Akomolafe [1], which stressed that the level of environmental awareness of tertiary institution students is still intangible and that the culture of proper disposing of refuse is not yet imbibed.
The finding from the hypotheses revealed that there is significant difference between the awareness of students from urban and rural areas and their practice of environmental education. This result might be because most people who live in rural areas are mostly poor and illiterates who are often more interested in issues related to their daily needs and survival than environmental management. Their lack of interest and awareness often lead to more reckless environmental behaviour whereas those in urban centers are often more exposed to environmental pollutions of various sorts like sound, vehicular, air, water over population etc which threaten environmental deterioration and can affect human health and well-being. The study is supported by the finding of Erubami and Young [6] and Alkali [3] who indicated that there was a statistically significant difference in rural and urban awareness of students.

Further supporting the result, Bruce K Environment [4] emphasized disparity between rural and urban students by stressing that urban children should learn about solid waste dilemma, air, water and pollution whereas the suburb students should focus merely on their resources conversation.

Further finding revealed that there is no difference between the awareness and practice of environmental education by gender. This could be because both male and female are exposed to environmental values in the school and they are both encouraged to practice it. The study of Akomolafe [1] found no disparity in the way male and female practice of Environmental Education. She found that both sexes are yet to imbibe the culture of proper disposing of refuse and that they hold negative attitude towards environmental issues. She further found that both sexes had a remarkably low knowledge of basic concepts of environmental education but they engage in practicing it.

7. Conclusion and Recommendations

The need for now is adequate awareness and practice of environmental education. Waste management and proper disposal of refuse, drinking safe water sanitation services, personal hygiene and safety among other environmental value are the environmental needs which students are found to be aware of and practice to certain extent in the study. The awareness and practice in schools located in urban and rural areas differ from the other but the awareness and practice by both male and female students are found to be similar. It is therefore recommended that students should be more exposed to adequate and effective pedagogical information on Environmental Education so as to be more equipped for the present and future environmental challenge. Waste bins should be strategically placed in schools so as to encourage proper practice. There should be special need for inculcation of environmental education especially in the rural areas.

8. References


Comparative Study of Remedial Math Students between the USA and the Middle East

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Abstract

Developmental education is a central pillar for educational systems beyond the high school level. It is a critical mission to enable under-prepared students to develop capabilities necessary for university success. On average 31% of students referred to developmental math completed the recommended developmental math course sequence within three years [1]. Only 16% of the math students completed the remediation courses that were placed three levels below college level courses. It is evident that on the average 42% of students who were referred to remedial math courses never enrolled in the course sequence Bailey [3].

Accordingly, this area has been the attention of many academic institutions around the world. This area concerns itself with college readiness of high school students seeking entrance to university to earn a first level degree or higher. Initial indications and surveys indicated that a large percent of these students are lacking basic academic skills.

1. Introduction

The data contained in his paper was obtained from two sources: Gulf University for Science and Technology, Kuwait and University of Missouri at Saint Louise, USA during the summer of 2013 fellowship visit to both institutions. The data covers a three years period from 2009 through 2012 for a total of 9 semesters for four different mathematics courses outlined in section 4 described below.

According to Armington, factors that might affect the performance of this category of students [2]:

- The effect of high school Standardized exam results such as ACT, SAT or others on university readiness.
- The effect of high school GPA on the level of university placement results.
- The effect of curriculum adjustment on student outcome.
- The effect of increasing the number of classroom interaction time.
- The effect of creating dedicated support lab equipped with qualified tutors.
- Use of new teaching methodologies that creates a learning environment where the students become responsible for his own learning.
- The effect of student’s level of comprehension of the English language on performance in mathematics courses.

2. Students Classifications

Looking at several academic sources across the world from United Arab Emirates, USA, and Kuwait it is noted that developmental students can be categorized into the following groups [2]:

- Students who have fallen behind not due to lack of ability but for other reasons such as, not enough interest, not giving enough efforts, but definitely not because of lack of ability. It is noted that this category can score success if they give efforts into the subject matter.
- The second group can be described as students who are not good in the subject of mathematics and lack the skills to perform well, but are able to finish college work up to graduation.
- The third group is described as those who have a considerable motivation to finish but lack the basic general skills of learning and maintaining knowledge.
- The fourth group is students with documented learning disabilities.
- The fifth group is described as those who have multiple of deficiencies in, reading, writing, mathematics, organization and social skills.

The first and second category will perform well in any developmental setting provided they are supported academically to pursue their studies. The challenge is with the remaining three groups who need considerable amount of intervention to complete the remediation level.

3. Placement Exams Purpose

The placement exam and its proper utilization using AccuPlacer or other commercially available testing platforms is one of the most important element in setting students and teachers on the path to succeed...
in university level work Adams, Gerhart, Miller and Roberts [4].

According to Armington [2], the following factors are affecting proper student/teachers placement:

- The score of the student in both the arithmetic and algebra portion of the test.
- The score of the college level readiness test.
- The student type according to the criteria set under developmental student classification above.
- The student major area of studies.

Proper allocation of the student in the proper class is essential to promote success for the group as a whole. For example placing only type four and type five students in one class and subjecting them to the same standards as other classes with type one and/ or type two would not produce the same pass rates as desired. Accordingly, the placement test with the knowledge of student type and student major area of study should be considered when placing the student and creating the composition of each classroom. Major factors affecting the class final outcome are first matching the student’s mathematics skills and background with the proper classroom format that will lead the entire group to an acceptable level of success and second creating a class that has homogeneity of skills among the classroom participants.

Otherwise ignoring these factors will lead to classroom management difficulties on part of the instructor teaching the class.

4. Course Data

4.1. Math 096 Intermediate Algebra

The graph shown in Figure 1 indicate a high degree of fluctuations in the course average for the indicated period for both institution prior to the spring of 2010, but more consistency is observed for the period after spring 2010 for both institutions. GUST seems to hold a higher average for the group by a differential of 20 points when compared with UMSL.

Information extracted from the data indicates that the average of the courses offered under foundation level has a lower average over the three years period for UMSL (34% Math 096 Intermediate Algebra) in comparison with GUST (61% for the same course). Subsequent inspection indicates that for the remaining university credit courses both institutions have very close proximity in the averages over the three years period.

The data reveals that all math courses average per semester indicates that GUST holds a higher average than UMSL by eight point differential.

4.2. Math 111 College Algebra

The average for math 111 shows more fluctuations for GUST when compared with UMSL over the three years period with a notable twenty points higher for GUST than that of UMSL.

4.3. Math 121 Basic Statistics

The graph shown in Figure 3 indicates less degree of
fluctuations in the course average for the indicated period, but more consistency is noted for the period after spring 2010 for both institutions. GUST seems to hold a higher average for the group by a differential of 10 points when compared with UMSL. It is noted that there are two places where GUST data experiences a notable spike in the course average as indicated in the graph for the Spring 2010 and Spring 2011.

4.4. Math 121 Basic Calculus

Figure 4 indicates a notable degree of fluctuation for the course average. The passing rate for the indicated period dropped down to a level of 61% as compared at the beginning of the period of about 80%.

5. Recommendations

It is recommended to apply any of the mentioned method below to work with students who encounter academic difficulties [2].

5.1. Lecture/Lab

In this model of instruction the student’s class time is divided into two parts, lecture of concepts with examples and the other portion is the lab practice. The teacher will be assisted with lab assistance and allows the students to work in groups or in individual basis. The questions are preset using a computer system that allows for doing homework, quizzes, and exams. Work done must be copied into the student notebook including solutions and is subjected to verification by the instructor or the lab assistance. This model currently applied at University of Saint Louis Missouri and other universities in the USA has been tested and has produced the most effective learning outcome. Pictures of the lab and the testing center included below.

5.2. Online Lab Instructions

This model asserts student work more than teacher lectures with all the work done by using computers including all practice and assessments.

5.3. Activity Based Learning

Activities are assembled that addresses the individual learning style. Learners vary in style from auditory, visual, kinesthetic “hands on” types. Accordingly the activities will target each learner at his own style of learning.

5.4. Software/Calculator Based Learning Model

Applies the use of calculators in all work related to the subject.
5.5 The traditional lecture method

The traditional lecture method is the most widely used form of presentation. Every instructor should know how to develop and present a lecture. They also should understand the advantages and limitations of this method. Lectures are used for introduction of new subjects, summarizing ideas, showing relationships between theory and practice, and reemphasizing main points. The lecture method is adaptable to many different settings, including either small or large groups. Lectures also may be used to introduce a unit of instruction or a complete training program. Finally, lectures may be combined with other teaching methods to give added meaning and direction. The lecture method of teaching needs to be very flexible since it may be used in different ways. For example, there are several types of lectures such as the illustrated talk where the speaker relies heavily on visual aids to convey ideas to the listeners. With a briefing, the speaker presents a concise array of facts to the listeners who normally do not expect elaboration of supporting material. During a formal lecture, the speaker's purpose is to inform, to persuade, or to entertain with little or no verbal participation by the students. When using a teaching lecture, the instructor plans and delivers an oral presentation in a manner that allows some participation by the students and helps direct them toward the desired learning outcomes.

5.6. Cooperative or Group Learning Method

Cooperative or group learning is an instructional strategy which organizes students into small groups so that they can work together to maximize their own and each other's learning. Numerous research studies in diverse school settings, and across a wide range of subject areas, indicate promising possibilities for academic achievement with this strategy. For example, advocates have noted that students completing cooperative learning group tasks tend to have higher test scores, higher self-esteem, improved social skills, and greater comprehension of the subjects they are studying. Numerous other benefits for students have been attributed to these programs. Perhaps the most significant characteristic of group learning is that it continually requires active participation of the student in the learning process.

5.7. Demonstration Method

This method of teaching is based on the simple, yet sound principle that we learn by doing. Students learn physical or mental skills by actually performing those skills under supervision. An individual learns to write by writing, to weld by welding, and to fly an aircraft by actually performing flight maneuvers. Students also learn mental skills, such as speed reading, by this method. Skills requiring the use of tools, machines, and equipment are particularly well suited to this instructional method.

Every instructor should recognize the importance of student performance in the learning process. Early in a lesson that is to include demonstration and performance, the instructor should identify the most important learning outcomes. Next, explain and demonstrate the steps involved in performing the skill being taught. Then, allow students time to practice each step, so they can increase their ability to perform the skill. Jenkins, Zeidenberg, and Kienzl [5] indicated higher level of success in comparison with other methods of instructions used.

5.8. Computer-Based Training Method

Many new and innovative training technologies are available today. One of the most significant is computer-based training (CBT)- the use of the personal computer as a training device. CBT is sometimes called computer-based instruction (CBI). The terms CBT and CBI are synonymous and may be used interchangeably.

The personal computer or PC has revolutionized the way businesses function and promises the same for education and training. The new generation is as comfort-able with the PC as they are with the telephone. As a result, educators today are using personal computers as part of educational programs of all types.

5.9. Accelerated Problem Solving Approach

Problem solving is an important component of mathematics education because it is the single vehicle which seems to be able to achieve at remedial level all three of the values of mathematics listed at the outset of this article: functional, logical and aesthetic.

Jenkines et al. [6] found out that the students using this approach were able to complete college level work at a better rate of success.

6. Conclusion

There seems to be evidence on the effectiveness of accelerated approach though not comprehensive. It is also clear that there are many other effective models and course designs that can be employed to enhance student outcomes. Results of research show that the accelerated model may not be the optimal approach, but considering other pathways may prove beneficial to student outcome. Several obstacles surface for setting
the pathway to success such as rigid placement policies and assessment, curriculum misalignment, faculty resistance to change, no sufficient funds. These factors must be taken into consideration when any new course design is to be implemented. Pilot program should be set up with small group size to test the new design before complete implementation.

In this paper few models were explored that have yielded an acceptable student outcome, but the overall picture in both countries still poor and needs much more intervention at both the high school and college level.

7. References


Need for Teaching Nigerian Local Economic Activities in Social Studies

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Abstract

The World Bank Group stepped up its Education Millennium Development Goals (MDGs) from ‘Education for All’ to ‘Learning for All’ with special emphasis on investing in people’s knowledge and skills to promote development. The new education strategy known as Decade for Learning for All (2010 – 2020) is a quick positive response to the recent findings that the level of skills in a workforce predicts economic growth rates far better than do average schooling levels. Schools in Nigeria have however recorded a long history of turning out unskilled graduates into the society on annual bases. This has correspondingly impacted negatively on the economic wellbeing of the concerned individuals and the developmental strategies of the Nigerian nation. In the current Decade for Learning for All a clarion call is therefore made on the specialists and other stakeholders in the various fields of study to embark on curriculum design processes that are targeted at skills acquisition as end products. The integrated, interdisciplinary, core, problem-solving and activity-based learner-centred Social Studies curriculum in Nigeria is a veritable tool for equipping the learners with the basic economic empowerment skills necessary for national development. This paper therefore articulates the local economic activities in Nigeria with the view of exposing the learners to the wide range of economic empowerment opportunities that abound in their localities.

1. Introduction

Nigeria is endued with abundance of natural and human-made resources. As in the other parts of the world where people quest for survival there is a wide representation of the different forms of economic activities in the country. The natural resources provide the base from which a large proportion of people’s basic needs are met. The most common natural resources in Nigeria are the land forms such as the Mandara mountain, the Oban and Idanre hills, Biu, Obudu and Jos plateau as well as the rocks of varying sizes from where the various types of mineral resources are extracted for local and international trade. The wide expanse of fertile arable soil covering the high forest region in the south and the savannah in the north dictate the patterns of agricultural activities in different parts of the country.

The major water bodies including Rivers Niger and Benue and their numerous tributaries encourage economic activities also. The availability of a variety of plant species in the form of economic and food plants as well as the tropical and the savanna crops provide the necessary raw materials to the industries. The animal species including the domestic and wild are in abundance. The atmospheric and climatic condition is an important factor in making Nigeria a hive of economic activities. In addition there is hardly any state in this country devoid of deposits of one form of mineral resources or the other [1]. It is perhaps on these bases as well as the country’s large population that Nigeria is being referred to as the Giant of Africa. Nigeria is also considered to be an Emerging Market nation by the [2]. While the Citi Group’s report revealed that Nigeria will have the highest average GDP growth in the world between 2010 – 2050 and that Nigeria is one of the two African countries that are among the eleven Global Growth Generators countries [3].
These impressive records notwithstanding, the country still struggles with a very high poverty rate. Of its estimated population of 167 million World Bank statistics in 2013 put the number of Nigerians living in destitution at 100 million, while its latest report put Nigeria among the five poorest countries in the world [4]. Many youths are unemployed. Report from the National Bureau of Statistics [5] reveals that 1.8 million graduates enter the labour market every year while the youth unemployment rate is estimated at 54%. Though experts have however argued that, in reality this figure may be as high as 60% [6].

The unemployment situation is worsened by the existing long period of embargo on employment in virtually all the government parastetals in the country. This notwithstanding both parents, students and even the teachers (by their poor approaches to teaching) still tend to want to wait for the government to provide employment for everyone graduating from the schools. This is evidenced in the March 11, 2014 incident when over 770,000 job seekers converged at the designated centres nationwide for an examination meant for selecting only 4,500 applicants for the country's immigration department. This caused a stampede that resulted in the loss of many lives.

Many youths are unemployed obviously because they are unskilled and as such are bereft of the technical know-how to harness the numerous economic activities that abound in their immediate environment. This is basically because they are products of a school system that has had a long history of turning out a very high percentage of unskilled graduates into the society annually. It is in the light of this that the National Universities Commission stresses the need for Entrepreneurial Education for all undergraduates in the Nigerian universities. At the expiration of the first decade (2000 – 2010) of The World Bank Group’s Millennium Development Goals (MDGs) it stepped up its ‘Education for All’ to the new Education Strategy 2020 of Learning for All: Investing in people’s knowledge and skills to promote development. The primary aim of the Decade for Learning for All is targeted at ensuring that learners acquire the knowledge and skills they need to lead healthy, productive lives and secure meaningful employment [7]. The tenets of this education strategy is most crucial for Nigeria particularly with the country’s vision 20 20 20 by which it is envisaged that Nigeria would be among the twenty most developed economies in the world. As [8] a noted, this ambitious vision can only be realized through the instrumentality of a robust education system. Specialists and other stakeholders in the various fields of study should therefore embark on curriculum design processes that are targeted at skills acquisition as the end products of every teaching/learning exercise. Schools should make this a golden rule for daily classroom practices.

In Nigeria it is part of the expected roles of the multi-faceted nature of Social Studies (as a core, integrated, interdisciplinary, problem-solving and activity-based learner-centred field of study) to be in the forefront in exposing the learners of the various class levels to the abundance economic activities by which they could be empowered for gainful employment and for a rapid economic development of the nation. Social Studies curriculum in Nigeria has been designed to equip the learners with functional knowledge and skills that would empower them with the fundamentals of economic development particularly through its wholistic study of the economic nature of man (human being). This is an aspect of Social Studies that focuses on the study of man’s economic tendencies inclinations, activities, and the entire economic environment.

2. Types of Economic Activities in Nigeria

The economic activities in Nigeria may be grouped into the normal three types of primary, secondary and tertiary economic activities [9].

2.1. Primary Economic Activities

These include all the processes of extracting or obtaining raw materials from the different aspects of the natural environment namely the land, water, atmosphere, plants, animals and micro-organisms. Nigerians engage in this form of economic activities mainly through the various mining ventures and agriculture.

2.1.1 Mining in Nigeria. Mining is the extraction (removal) of minerals and metals from the earth. Though the history of organized mining in Nigeria dates back to 1903 in the Northern Protectorates and in 1904 in the Southern Protectorates by the British colonial government the domestic mining industry is underdeveloped accounting to only 0.3 percent of the county’s GDP. It may be noted that Nigeria was a major producer of columbite, coal and tin in the 1940s but interest in mineral extraction began to witness a fast decline by 1956 when oil was discovered in Oloibiri a small village in Rivers State (South-South geo-political zone). Both the government and the industries shifted virtually all effort on exploiting the new product.
There has however been re-awaken of attention to the mining of minerals in the country since after a democratically elected government in 1999. The Federal Government has formulated a well articulated policy objectives and programmes, particularly for the mining of solid minerals. The effective implementation of the policies will provide the nation with the enormous opportunities obtainable from her mineral wealth. It is currently estimated that there are about forty solid mineral deposits spread across the country. Table 1 presents a state-by-state sample of mineral deposits in Nigeria. The thirty-six states including the Federal Capital Territory (FCT) Abuja are outlined in an alphabetical order in the table.

Table 1: State-by-State Sample of Mineral Deposits in Nigeria

<table>
<thead>
<tr>
<th>S/n</th>
<th>State</th>
<th>Mineral Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abuja (FCT)</td>
<td>Marble, Clay, Tentalite, Cassiterite, Dolomite</td>
</tr>
<tr>
<td>2</td>
<td>Abia</td>
<td>Gold, Salt, Limestone, crude oil, Lead, Zine</td>
</tr>
<tr>
<td>3</td>
<td>Adamawa</td>
<td>Kaolin, Bentonite, Gypsum, Magnesite</td>
</tr>
<tr>
<td>4</td>
<td>Akwa Ibom</td>
<td>Crude oil, Lead/Zine, Clay, Limestone, Salt</td>
</tr>
<tr>
<td>5</td>
<td>Anambra</td>
<td>Lead/Zinc, Clay, Limestone, Iron-Ore, Salt, Glass-Sand, Phosphate, pyrite, lignite, Natural Gas, Petroleum</td>
</tr>
<tr>
<td>6</td>
<td>Bauchi</td>
<td>Kaolin, trona, gypsum, cassiterite, mica, clay, tantalite, galena, gemstone, sphalerite, sand, barite, columbite, zinc, lead, monazite, feldspar, graphite, wolfram, coal, agate, tantalite, rutile, tungsten, copper, talc, ilmenite, zircon</td>
</tr>
<tr>
<td>7</td>
<td>Bayelsa</td>
<td>Petroleum, Natural Gas, Clay, Limestone, Manganese, Bentonite, Glass-sand</td>
</tr>
<tr>
<td>8</td>
<td>Benue</td>
<td>Lead/Zinc, Limestone, Iron-Ore, Coal, Marble, Salt, Gemstones, barbitaries, feldspar, marble, mica, galena, sphalerita, sand, clay, gypsum, kaolin, anhydrite, brick clay, crushed and dimension stone, fluorspar, wolframite, bauxite, magnetite, ilmenite</td>
</tr>
<tr>
<td>9</td>
<td>Bornu</td>
<td>Silicasand, natural salt, sapphire, topaz, mica, gypsum, feldspar, granite, potash, aquamarine, limestone, kaolin, bentonite, laterite, refactory clay, trona, gold, cassiterite, diatomite</td>
</tr>
<tr>
<td>10</td>
<td>Cross River</td>
<td>Limestone, uranium, manganese, lead/ zinc, salt, coal, mica, ilmenite, gold, quartz, glass sand, tourmaline, petroleum, natural gas, kaolin, mica, clay, spring, water, talc, granite, cassiterite, goethite, barite</td>
</tr>
<tr>
<td>11</td>
<td>Delta</td>
<td>Petroleum, natural gas, marble, glass sand, gypsum, lignite, iron – ore, kaolin, gravel, ball clay, bauxite, clay, spring water</td>
</tr>
<tr>
<td>12</td>
<td>Ebonyi</td>
<td>Lead, gold, sphalerita/ galena, salt, limestone, ball clay, refractory clay, gypsum, graniter</td>
</tr>
<tr>
<td>13</td>
<td>Edo</td>
<td>Bitumen, crude oil, marble, lignite, limestone, iron – ore, gypsum, copper, gold, granite, gypsum, ceramic clay</td>
</tr>
<tr>
<td>14</td>
<td>Ekiti</td>
<td>Glass- sand, gold, phosphate, kaolin, granite, clay, quartzite, lignite, limestone, gemstone, bauxite, cassiterite, columbite, tantalite, feldspar</td>
</tr>
<tr>
<td>15</td>
<td>Enugu</td>
<td>Crude oil, iron – ore, petroleum, gypsum, coal, sand, ceramic clay</td>
</tr>
<tr>
<td>16</td>
<td>Gombe</td>
<td>Gemstone, graphite, kaolin, limestone, sand, uranium, coal, halite, clay, granite</td>
</tr>
<tr>
<td>17</td>
<td>Imo</td>
<td>Lead/ zinc, limestone, salt, crude oil, shale, natural gas, kaolin, sand, limestone</td>
</tr>
<tr>
<td>18</td>
<td>Jigawa</td>
<td>Lead/ zinc, glass sand, butyte, granite, clay, kaolin, iron- ore, quartz, potash, talc, ilmenite, zircon, kyanite, cassiterite, ilmenite, columbite</td>
</tr>
<tr>
<td>19</td>
<td>Kaduna</td>
<td>Lead/ zinc, sapphire, kaolin, gold, clay, rock, crystal, gemstone, muscovite, granite, manganese, graphite, sand, zircon, kyanite, cassiterite, ilmenite, columbite</td>
</tr>
<tr>
<td>20</td>
<td>Kano</td>
<td>Copper, glass-sand, gemstone, lead/zinc, clay, laterite, cassiterite, columbite, galena, kaolin, silica, wolframite</td>
</tr>
<tr>
<td>State</td>
<td>Minerals/Metals</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>21. Katsina</td>
<td>Lead/zinc, Marble, salt, gold, manganese, feldspar, black tourmaline, amethyst, quartz, kaolin, mica, gypsum, silimanite, clay, sand, uranium, asbestos, asbestos, tourmaline, serpentine chroinite, ilmenite, diamond, graphite, iron-ore, potash</td>
<td></td>
</tr>
<tr>
<td>22. Kebi</td>
<td>Salt, iron-ore, gold, limestone, quartz, bauxitic clay, manganese, kaolin, mica</td>
<td></td>
</tr>
<tr>
<td>23. Kogi</td>
<td>Iron-ore, kaolin, gypsum, marble, talc, clay, gemstone, limestone, feldspar, dolomite, phosphate, mica, cassiterite, granite, coal</td>
<td></td>
</tr>
<tr>
<td>24. Kwara</td>
<td>Gold, marble, iron-ore, cassiterite, columbite, clay, kaolin, sand, quartz, dolomite, feldspar, tantalite, granite, limestone, tantalite</td>
<td></td>
</tr>
<tr>
<td>25. Lagos</td>
<td>Glass sand, clay, bitumen, crude oil, gravel laterite</td>
<td></td>
</tr>
<tr>
<td>26. Nasarawa</td>
<td>Barite, coal, iron-ore, copper, columbite, and aquamari, beryl (emerald), cassiterite, gemstone, amethyst, chrysolite, emerald, garnet, sapphire, topaz, barites, galena, monazite, zircon, glass-sand</td>
<td></td>
</tr>
<tr>
<td>27. Niger</td>
<td>Ballclay, kaolin, limestone, granite, glass sand, iron-ore, red clay, feldspar, gold, graphite, kyanite, quartz, asbestos, marble, talc, gemstone</td>
<td></td>
</tr>
<tr>
<td>28. Ogun</td>
<td>Bitumen, phosphate, clay, kaolin, limestone, feldspar, silica sand, mica, granite, gypsum, quartz</td>
<td></td>
</tr>
<tr>
<td>29. Ondo</td>
<td>Bitumen, kaolin, gemstone, granite, limestone, coal, crude oil, marble, gold, clay, diorite, lignite</td>
<td></td>
</tr>
<tr>
<td>30. Osun</td>
<td>Clay, granite, talc, dolomite, feldspar, quartz, limestone, mica, clay, gold, columbite</td>
<td></td>
</tr>
<tr>
<td>31. Oyo</td>
<td>Clay, feldspar, granite, limenite, iron-ore, kaolin, quartz, talc, marble, dolomite, tourmaline, amethyst, marble, clay, gold, cassiterite, aquamarine</td>
<td></td>
</tr>
<tr>
<td>32. Plateau</td>
<td>Monazite, columbite, feldspar, clay, cassiterite, gemstone, kaolin, dolomite, mica, zircon, marble, ilmenite, barites, quartz, talc, galena</td>
<td></td>
</tr>
<tr>
<td>33. Rivers</td>
<td>Petroleum, natural gas, sand, clay</td>
<td></td>
</tr>
<tr>
<td>34. Sokoto</td>
<td>Silicas, clay, salt, limestone, phosphate, gypsum, kaolin, laterite, potash, granite</td>
<td></td>
</tr>
<tr>
<td>35. Taraba</td>
<td>Fluorspar, garnet, tourmaline, sapphire, neon, tantalite, columbite, cassiterite, barite, galena, gypsum, limestone, laterite, calcite, bauxite, pyrite, lead/zinc-ore</td>
<td></td>
</tr>
<tr>
<td>36. Yobe</td>
<td>Salt, trona, diatomite, clay, gypsum, kaolin, silicasand, limestone, iron-ore, shale, uranium, granite, bentonitic, clay</td>
<td></td>
</tr>
<tr>
<td>37. Zamfara</td>
<td>Gold, granite, chromite, charnockite, clay, feldspar, spring water</td>
<td></td>
</tr>
</tbody>
</table>

Source:[11] [12] and [13].

The National Bureau of Statistics further outlined some of the opportunities provided by the availability of these minerals resources and they include that:

- The presence of these resources opens up avenues for increased employment of Nigerians, particularly in the rural areas where the minerals are found.
- The multiplier benefits to the citizenry are enormous.
- The solid minerals sector can very easily be the largest employment sector of the economy, since deposits abound in every State of the Federation.
2.1.2 Agriculture. Agricultural products formed the economic base of Nigeria before the discovery of crude oil. This is symbolized by the green-white-green colours of the Nigerian flag where green stands for agriculture and white purity. As a traditional agrarian society each ethnic group produces a variety of crops as enabled by their peculiar geographical condition and location [14]. Though agriculture in Nigeria contributes merely about 20 percent of the Nigeria total GDP and coming very far behind petroleum which is currently the major Nigerian domestic product, it is believed that if the agricultural sector is properly managed and enhanced, it would greatly boost the country's GDP and even replace oil on the top of the list, considering the vast area of arable land that is unused in Nigeria [15].

The major forms of agricultural practices in Nigeria include crop farming and animal rearing. Crop farming is practiced in every part of the country. The Nigerian soil and climatic condition is very suitable for the production of wide verities of crops. However the agricultural sector is one of Nigeria's potential sources of revenue that is yet underdeveloped and unexplored. It has been speculated that about 82 million hectares out of Nigeria's total land area of 91 million hectares were found to be arable, and merely 42 percent of this cultivable area was farmed. Most of this available land is being used for subsistence farming by the over 70 percent of the Nigerian rural dwellers and who also depend largely on the bush fallow system. [16]. The major crops are cocoa, peanuts, palm oil, corn, rice, sorghum, millet, soyabeans, cassava, yams, rubber, beans, potatoes, onions, garlic, carrot, pear, ginger, palm kernel, oil bean, cocoa yam, okra, vegetables and very many others.

Livestock farming is another important aspect of agriculture in Nigeria. The livestock products in Nigeria include Cows, Goats, Sheep, Cattles, Pigs, Horses and several others while poultry birds include chicken, turkey, duck, pigeons and others [17]. With the current shift from the old practices to the modern technologies and other infrastructures the country is beginning to witness growth in its agricultural output. The federal government, corporate bodies and some individual farmers are beginning to show renewed interest in the agricultural sector by investing in large scale farming and ultimately increasing agricultural products.

2.2 Secondary Economic Activities in Nigeria

The secondary economic activities include all the various manufacturing processes of converting the raw materials from their natural states to the consumable or final, or finished stages. These are undertaken by the manufacturing industries of varying scales and capacities ranging from cottage, small and medium sized to the highly sophisticated manufacturing companies. In the recent time however a good number of economic or business ventures for which skills may be easily acquired in the Social Studies teaching/learning processes are making headways. Some of these as outlined by [18] include:

- Cassava products such as cassava flour, garri, cassava chips. It has been discovered that cassava floor has become a ready market in Europe and the Middle East.
- Snails: Nigerian snails are also in high demand in America and Europeans Countries and it costs little to start and maintain a snail farm.
- Ginger: Nigeria is among the World’s largest producers of ginger and it is one of the most important in the world spice market,
- Leather Products Nigeria ranks the third largest livestock producer in Africa. As such has a strong potential in this sector.
- Palm Kernel Oil popularly called PKO is extracted from the Palm kernel
- Yam products: Nigeria is the highest yam producer in the world. Data from Nigerian Export Promotion Council (NEPC) reveals that the World production of yam is 51.4 million tonnes per year out of which Nigeria accounts for an average of 36.7 million tonnes,
- Textiles and Garments: There is a current boom in the demand for African fabrics particularly in the United States of America where Nigerian textiles and apparels have been granted duty free passage.
- Gum Arabic is produced by Acacia trees and occurs within the Sahel Ecological zone of Nigeria.
- Gallstone: Gallstone is clay-like solid substance found in the gallbladder of a matured cow or oxen.
- Sesame seed found in Benue and Jigawa states is one of the oldest food and cash crops. Ranks second after cocoa in of exports and foreign exchange and currently found in 21 states in Nigeria.
- Garlic: Garlic is a product that can earn foreign dollars in America and the EU Countries.
- Fruit juice: There are lots of natural fruits in the country namely: Mango, Citrus, Tomato, Paw-paw, Guava, Pineapple among many others. These fruits are produced abundantly in almost all states of the Federation and available in all Nigerian markets.
- Shrimps: Nigeria is one of the tropical countries endowed with rich shrimp resources. The major markets for the Nigerian shrimps in Europe are Belgium, Portugal, Spain, France and the USA. All are usually packaged in 2.2-kg packets into master cartons.

- Others in this category of local economic activities in Nigeria include Cocoa butter, Gum Arabic, Charcoal, Cosmetics and soap, Rubber, Shea butter, Pure Honey, Poultry.

3. Conclusion

Nigeria is blessed with all the natural resources that could have long placed her in the class of First World economies. The country is still among the third world nations, the fifth poorest in the world with a threatening unemployment rate, youth restiveness and insecurity. This is primarily because we have had long history of turning out unskilled graduates into the society on annual bases. To achieve the vision of becoming one the twenty most developed economies in the world by the year 2020 is not an impossible task. Particularly with the corresponding World Bank Group’s new Education strategy 2020 of ‘Learning for All: Investing in people’s knowledge and skills to promote development.’ Specialists and other stakeholders in the various fields of study are hereby beckoned on to embark on curriculum design processes that are targeted at skills acquisition as the end product of every teaching/learning exercise. Schools should make this a golden rule for daily classroom practices. This will form the bases for the needed revolution in the Nigeria’s education system as it will produce the quality of manpower resources that would drive the country to its dream position.

The multi-faceted Social Studies in Nigeria is placed in the core position in empowering learners with functional knowledge and skills for effective citizenship. Part of its processes for accomplishing this task is by exposing learners of the various class levels to the abundance economic activities by which they could be empowered for gainful employment and for a rapid economic development of the nation. Social Studies curriculum has been designed to ensure that learners are equipped with skills that would empower them with the fundamentals of economic development particularly through its wholistic study of the economic nature of man (human being).

4. References


[12] Raw Materials Research and Development Council (RMRDC), National Distribution of Raw Materials, Abuja, Nigeria


Session 3: Learning / Teaching Methodologies and Assessment

The Active Learning: Their Impact on Undergraduates
(Author: Iris Maria Velez Osorio)

Educational Needs of Students with Disabilities at Institutions of Higher Learning at University of Venda
(Author: Tshifhiwa Rebecca Mbuvha)

Addressing Language Learning Problems and Learning Disabilities in a Classroom: Evaluating a Large-group Intervention Programme
(Authors: Nandini Narayanan, Rajani M Konantambigi)

Which Component Reading Skills Predict Reading Comprehension Gains in Adult Literacy Students?
(Author: Martin G. Murphy)
The Active Learning: Their Impact on Undergraduates

Iris Maria Velez Osorio
Icesi University, Colombia

Abstract

The present research has as objective to review the active learning as methodology in students of undergraduate programs which have different learning styles. It will be make a comparison between different groups of students which have singular learning styles (active, sensory, visual, sequential, reflective, intuitive, verbal and global) but will be apply the same treatment active learning teaching method. For measuring the differences will be measure by regression, the will be take final grades of students to measure the impact of the active learning method in each student and depending of each learning style; also, there was made questionnaires to professors about active learning method in education. Next will be elaborate the group analysis and comparison.

1. Introduction

The active learning had been considered as a dynamic process where students have the main role, it is a relationship between the professor and the student, the professor is a guide for learning while the student transform information into knowledge, this means that the active learning is more than reading, repeating and exposing, requires a comprehension, practice and involvement.

For many years, education on universities around the world have been traditionally support on the ideas of teaching, learning and replying, the active learning brings a new concept where the process change: understanding, learning and applying. This new way of study had become more important and more precise because new technologies as internet, telephones, and portable machines allows the students to have specific knowledge on real time with minimum of effort. That is why individuals required learning in a different way; today, people can found information everywhere, what is done with that information is the key.

The education is changing; the cyberspace set the bridge to a completely different behavior for students and professors, in the educative organizations, passing from passive and slow learning to active and fast learning. Some students, want to learn through devices that most of them are using almost all day long, but the learning environment are not necessary ready for this adventure. Some trends in education that are responding to this new special way to: learn, work and live, is the gamification and the digital narratives, both of them involved devices, applications and software in order to get the student involved in the learning process almost all the time; nevertheless, these techniques are not extended to all educative organizations some of them do not have the enough resources or their students do not count with the devices to enter to this new system. For these organizations, not just the professor-student relationship is changing but also the values, language, costumes, symbols, ways to work, structure, strategies; in general the organizational culture of these schools is changing due to social media. Both professors and students start to play a different role and create a new structure for the school and a new road for the organizational culture where social media is organizing and revolutionizing the learning system, how it had being known until now. In consequence, for this research will be study the active learning as the approach of teaching in a very dynamic way where the student have to be involved in a double way, it will be explain more in detail further, the hypothesis here is that active learning has a positive impact in the learning of each student, more active learning better will be the academic results of each students, this academic results will be measure by final grade in a particular course, and also the learning style of each student will be involved comparing between the groups if the active learning style of teaching affects each learning style.

2. Methodology

For this study there will be two main variables, first the active learning style as the
independent variable and the second one will be each learning style of students groups: active, sensory, visual, sequential, reflective, intuitive, verbal and global as the dependent variable. Active learning will be considered as a fix variable that is described as the approach of teaching where professors play a different role in the education of students, being more dynamic in their pedagogy classroom methodologies and involving students into the class through mechanisms linked to social media, technologies, self motivated techniques.

For the dependent variable will be taken the learning style questionnaire made by the University before that students begin their academic first year, which defined the learning style, each learning style for this research will be related to a final grade for a particular course the organizations course which is an introductory course taken by students of different careers: economy, business, medicine, politics, psychology, anthropology, and others. The final grade of each student will be considered a measure of impact of the active learning style, but measuring differences between groups of students of each category that have sensory, visual, active, sequential, reflective, intuitive, verbal and global learning styles, better the grade more positive will be the impact of the active learning style apply by the professor teaching the organizations course. With the results will be made interactions and regression to have the correlation between the two variables, also will be make comparisons between the different group of students learning styles (sensory, visual, active, sequential, reflective, intuitive, verbal and global). The construct of the relationship is as follows:

![Diagram](Figure 1. Construct)

In this case is expected a positive relationship between active learning and every learning style, resulting in good performance in the study of each individual.

3. Theoretical Framework

Agree with George and Dellasega [8] “Context and setting Within emerging online environments, conventional blogging sites, as well as microblogging tools such as Twitter, have become integrated into pedagogical efforts. Social networks such as Facebook, content-sharing sites such as YouTube, cloud storage sites such as Flickr and Google Docs, as well as Internet-based communication software (Skype), have helped students join learning communities quickly and access course materials more readily than traditional classroom methods” since students have more possibilities to access to social media, education had change to a new perspective of active and versatile education.

George and Dellasega [8] made a very interesting research in two different courses connecting or applying some social media tools and they found that “Students rated both courses highly, mentioning the helpfulness of the social media resources. Their narrative comments expressed their satisfaction with the integration of social media into coursework and their opinion that this integration augmented learning and collaboration. Others identified challenges, including: demands on time outside the classroom; concerns about privacy, and lack of facility with technology. Integrating social media tools into class activities appeared to offer a variety of benefits over traditional classroom methods, including real-time communication outside the classroom, connections with medical experts, collaborative opportunities, and enhanced creativity” This remarkable results shows how social media had been changing education and how in fact, has an impact in education, in this particular case, medicine students involve with social media founding possibilities not just to make social part of learning but also create contents to learn themselves. This has important implications for the educational sector who had been adapting in the last 20 years to the increasing use of social media.

“With the emergence of new technology based education paradigms based education paradigms, how do we expect the classroom, as well as learning styles of students to be change? How can today’s educational leaders influenced these changes?” (Whelteer cited by Powers [11]). There is several possibilities and answer to these questions, nowadays the educational systems are trying to get involved students in classroom, trying to maintain the traditional ways to teach,
the professor as the person who have the knowledge but some research are showing that roles are inverted most of the students are developing their own knowledge and are changing the roles, the expectations about education. The key in this new system for education seems to be the collaboration, cooperation between students, students’ professors, and professors-professors, the active learning make possible these relationships and the benefits of good performance and innovation in the classroom.

4. Results

The total sample of students measure was 226 in 8 different groups all of the students received the same treatment, the teaching method: active learning; also they are in the same course named organizations, but they was in different groups, different careers and faculties at the same university.

The model corresponds to:

\[
y = 4,643 + 0.043 X1 - 0.210 X2 - 0.135 X3 - (2.699E-16) X4 + 0.002 X5 - 0.018 X6 - 0.134
\]

In the Table 1 the correlations is shown, there was found that there is a positive relationship between the active learning style as a approached of teaching with the styles of learning of students, but particularly when was compared the groups and the grades of students also was demonstrate that the active learning style of teaching works very good for students in the following styles:

1. Global
2. Active
3. Sensorial
4. Sequential

The styles of learning of students: verbal, visual, intuitive, reflexive received lower scores for the active learning method of teaching, meaning that impact positive but so high as works for the global, active and sensorial.

Table 2. Learning Styles of Students

<table>
<thead>
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As is exposed in the second table, the learning styles had a relationship with the active learning method of teaching; each learning style of students allows that the teaching method guaranteed a better performance of the student, which is reflected in their final grades of each student in each organizations course.

5. Conclusions

The active learning method for teaching could be settled as a good source of creativity, innovation and professor-student involvement in the class in a very dynamic way, but also, could be considered as the possibility to make education more attractive for new generations that are more in touch with new technologies, the active learning became very important for develop new approaches in pedagogy and methods, also some approaches are already working in better ways to make students participate in the classroom as gamification.

For future research, it will be necessary to make studies about the impact of this specific active learning approach in online classes, distance learning programs and some courses that in general are more passive for students and more active role of professors. Also will be interesting to make some experiments changing the way some courses are teaching to compare results if were applied the active learning approach, and introduced some control groups into the study.

6. References


Table 1. Correlations

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Sig. (unilateral) | Calificación | X1   | X2   | X3   | X4   | X5   | X6   | X7   |
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Educational Needs of Students with Disabilities at Institutions of Higher Learning at University of Venda

Tshifhiwa Rebecca Mbuvha
University of Venda: South Africa

Abstract

For the past two to three decades, there has been a large influx of students with disabilities into institutions of higher education worldwide. In South Africa, records of intake of students with disabilities were not recorded in these past three decades, as services and support of this kind were not institutionalised. Within this transformation process, institutions of higher learning are phasing challenges on the kind of support to offer to students in order to succeed academically. This study explores the kind of support offered to students with disabilities and how this support contributes towards their academic performance from an insider perspective. This was a qualitative research, and the method of data collection consisted of individual and focus interviews. Ten students with various disabilities participated in a focus group interviews. The finding reveals that there are some degrees of support but there are still some gaps to meet students learning needs.

1. Introduction

Higher Education (HE) establishments around the world have different policies for providing accommodations to students with disabilities [10]. In most countries there is a legal requirement to provide accommodations and support for students with disabilities in Higher Education Institutions. Students must self-identify as disabled and provide medical documentation to be eligible for the support services.

2. Research problem

The researcher became aware of the low completion rate among students with disabilities at institutes of higher education, as she is employed at one of the Disability Units in South Africa. Disability Units offer specialised services to their students with disabilities in order to facilitate access and integration of these students at their institutions [6]. Furthermore, it is evident that quality educational support needs to be in place for students with disabilities to succeed and graduate from institutions of higher learning [7]. The researcher is thus motivated find out whether the lack of proper educational support and resources at higher education institutions might be contributing to long stay and high failure rates of students with disabilities in these institutions of higher learning.

The research problem of the study is thus developed as follows: The lack of proper educational support at institutions of higher learning may be causing high failure rate and dropouts among students with disabilities.

This problem is not unique to South Africa. Studies have been done on the status of educational needs of students with disabilities at institutions of higher learning elsewhere. A survey on “Provision for students with disabilities in Higher Education” was carried out by UNESCO section for Special Needs Education as a contribution to the World Conference on Higher Education [17]. In this survey, many countries like Latin America, Europe, Asia and Pacific, Arab States and Africa participated. The survey found that the educational needs of students with disabilities were often ignored. This finding may attest to the fact that meeting the educational needs of students with disabilities might differ from that of the developed country, which may be worse in impoverished countries like those in the Sub-Saharan Africa. I agree with the latter study in that, there should be plans in improving services on the educational needs of students with disabilities, particularly from those universities in poorer regions which lack sufficient resources. [8] argue for the need to continue to seek out, listen to, and act upon the views of disabled students in our attempt to make higher education thoroughly inclusive. This view is also held by [15] who revealed that students with
disabilities are dissatisfied with the quality of services provided to them by lecturers at tertiary institutions in Zimbabwe probably because their side of their story is often overlooked.

Although services (support for students with disabilities) are provided across the different Disability Units in South African universities, the variation is more in the number of different services provided [6]. The Fotim study did not indicate the effectiveness of the DU services from student’s perspectives. It is important to that students’ views be considered in the planning process as the cliché says: “Nothing about us without us” [3]. In this project, in depth effectiveness of the support services offered by DU from the students views is missing. This study will be looking at the available support services and their effectiveness to meet the educational needs of the students with disabilities. Difference between practices offered in different universities will also be explored. These studies and others, point to the need for an in-depth examination of this phenomenon. Apparently, a study on this focus has not been done in this area (Limpopo Province) so far. Thus, its significance.

3. Literature Review

3.1. Support for People with Disabilities Internationally

Many countries have developed inclusive policies with the objective of creating a society in which people with disabilities are accepted in the same way as other citizens [18]. According to [3], this is enhanced by the Americans Disability Discrimination Act of 1995 which specifically prohibits discrimination that many people with disabilities face and protects them in issues pertaining to:
- Employment;
  - Access to goods, facilities and services;
  - Management, buying or renting of land or property;
  - Education.

Even though the enactment of various disability laws has contributed to the increasing enrolment of students with disabilities in higher educational institutions, [14] comments that students with disabilities constantly face various barriers in their educational environment in the United States America. From the four surveys that [1] conducted in six English universities in the United Kingdom, the experiences of students with disabilities varied. According to [1], some students encounter significant barriers, while others find the support they receive praiseworthy. These surveys revealed that a minority of students with disabilities face barriers in teaching, learning and assessment. These findings suggest that using a catch-all category of ‘students with disabilities’ is problematic and that devising generic policies to support their teaching, learning and assessment may not always meet the specific educational needs of individuals [1]. At this point, it is also difficult to provide an accurate picture of the available types of educational support systems across the Disability Units in South Africa, as this area remains under-researched.

3.2. South African Support for People with Disabilities

3.2.1 Education Rights

Historically, the area of special needs education, or specialized education, and education support services provision have reflected the general inequalities of South African society, with disadvantaged learners receiving inadequate or no provision [13].

Since 1994, the South African government has been committed to transforming educational policy to address the imbalances and neglect of the past [12]. In addition, education policies and legislation with respect to disability reflect a move away from welfare to a rights and developmental approach. Education policy documents that emerged since 1994 entrench the principles enshrined in the Constitution of South Africa, i.e., education as a basic human right, quality education for all, equity and redress, the right of choice, curriculum entitlement and the rights of parents [12].

This fundamental right to basic education is further developed in the Constitution in Section 9 (2), which commits the State to the achievements of equality, and Section 9 (3), (4) and (5) which commits the State to non-discrimination. These clauses are particularly important for protecting all learners, including those who have disabilities and those who have special learning needs [4].

3.2.2 Higher Education and People with Disabilities

Limited attention has been placed on addressing issues of access and participation of students categorized by the government’s National Plan for Higher Education (NPHE) as ‘non-traditional students’ [5]. Included within this category are students with disabilities, identified as an important target group to reach in broadening the social base of the higher education system [5].
However, since the introduction of non-discriminatory legislation in various countries, there have been many changes in higher education, such as the following [3].

- Colleges and universities have developed systems that provide access to qualified students with disabilities to participate effectively in academic and social programmes;
- Changes in faculty attitudes and practices towards students with disabilities;
- An increase in students’ self-awareness and knowledge of their own impairments.

Institutions of higher education in South Africa are presently undergoing transformation [16]. Since 1994, South African institutions of higher learning have been including disabled students in their programmes, as required by the national policy on higher education and training [9]. The South African National Plan for Higher Education requires higher education institutions to increase the participation of students with special educational needs [5].

3.2.3 Support Services and Needs of Students with Disabilities

According to [5], the key to reducing barriers to learning within all education and training lies in a strengthened education support service. It further states that, in further and higher education, institutions are required to establish institutional-level support teams. The primary function of these teams is to put in place properly coordinated learner and educator support services. These services are to support the learning and teaching process by identifying and addressing students, lecturers and institutional needs [5].

Lecturers at tertiary level do not know how to teach and to treat students with impairments [3]. Currently, there are no or an insufficient amount of qualified staff members who understand inclusive education at tertiary level [1]. There is a vital need to continue to seek out, listen to, and act upon the views of students with disabilities in the attempts to make higher education thoroughly inclusive to all [1].

3.2.4 Disability Units

During the past two to three decades, there has been a large influx of students with disabilities into institutions of higher education worldwide [3]. In South Africa, records of intake of students with disabilities were not recorded in these past three decades, as services of this kind were not institutionalised. Figure 1 depicts the influx of students with disabilities in some of South Africa’s universities that did measure disabled student intake.

![Figure 1: Number of Students with Disabilities that Enrolled at the University of Venda and the University of Pretoria from 2003 -2010](image)

Institutional responsibility should facilitate the collaboration of universities (faculty, administration, students) to provide outreach and support aimed at meeting the disability accommodation needs of students with disabilities. According to [7], Disability Units, which were developed to cater to this need, are now available at each university in South Africa. As stated earlier, Disability Units offer specialised services to their students with disabilities in order to facilitate access and integration of these students at their institutions [6].

4. Aim of the study

The aim of study was to establish what kind of support is offered to students with disabilities and how this support contributes towards their academic performance from an insider perspective.

5. Research questions

- What support is offered to students with disabilities to assist them with their academic performance?
- How effective are the educational support provided by Disability Unit and how it affect the academic performance of students with disabilities?
- Is there any significant difference between practices offered in different at institutions of higher learning in South Africa?

6. Methodology

6.1. Research Design

The study followed a qualitative research method, where a case study design was adopted. The aim of
study was to establish what kind of support services are offered to students with disabilities and how this support contributes towards their academic performance as seen from their perspective. The type of research question, therefore, required that this study follow an interpretive paradigm within qualitative research methodology framework, since the reality to be studied consisted of participants’ subjective experiences of the external world [17].

According to [17] paradigms act as perspective that provide rationale for the research, and commit the researcher to particular methods of data collection, observation and interpretation. Furthermore, paradigms constitute the epistemological, the ontological and methodological premises of the researcher. Therefore since my goal was to understand how students with disabilities constructed their own meaning of the experience I involved in an active meaning-making process with the participants and used qualitative methods of data collection in order to establish the kind of support they received as seen from their worldview.

6.2 Population

The participants were from University of Venda Disability Unit in an attempt to limit extraneous variables as far as possible by keeping the group similar in terms of experience, disabilities and also on the basis of the assumption that their educational needs might be similar.

6.3 Sampling

I sampled students with various types of disabilities to participate in this research by using purposive and convenience sampling. I selected convenience sampling method because the participants who are willing and available to take part in the study participate. Through the DU, 10 students with disabilities were notified of the project and its purpose and then asked to register their willingness to participate. Ten individual interviews and two focus group interviews were held at different times during the research process.

6.4 Data Collection

Instruments

The following data collection instruments were utilised:

- Questionnaire for students with disabilities
- Students Focus group guidelines

Questionnaires

The questionnaires for students with disabilities and the Focus group guidelines that were used by the Foundation of Tertiary Institutions of the Northern Metropolis on “Disability on Higher Education: Project Report” was adopted and used to collect data [6]

6.5 Data Analysis

Data analysis is the systematic search for meaning and a means to process data. In other words, the process involves making sense of data [11]. Data analysis involves the process of transforming data to answer the initial research question. The process of data analysis started during fieldwork. A qualitative researcher’s effort is focussed on interpreting and understanding the social world of the participants. Data collected will be used to establish what kind of support is offered to students with disabilities and how this support contributes towards their academic performance from an insider perspective.

6.6 Validity/Trustworthiness of the Instrument and coding of data

The validity of the instrument is obtained by checking internal validity that is “the ability of a research instrument to measure what it is purposed to measure” [2]. Content validity of the instruments will be measured by giving it to the experts in the field.

The data obtained from the questionnaires will be edited, cleaned and coded for data analysis, in that the researcher will only use questionnaires that have been completed 100% by respondents. Those questionnaires that have not been completed fully will not be used for data analysis.

7. Ethical considerations

Permission to undertake the study will be obtained from the Ethical Committee of the Universities in South Africa. The students with disabilities will be informed about the purpose of the research, expected duration and procedures, as well as of their right to decline to participate and to withdraw from research at any time, even once participation has begun. The researcher will obtain written consent from all research participants. Permission from University of Limpopo ethics committee is also needed.
8. Significance of proposed research

It is believed that the findings of this study can contribute to knowledge gaps about the level of support services that are offered to students with disabilities at universities in South Africa. With these gaps identified, universities can be assisted in improving their services to students with impairments.

The results of the study can also potentially assist the Department of Education in revising their inclusive education policy on institutions of higher learning. The study may also assist the Department of Education to develop strategies that will assist in strengthening the support services offered to the students with disabilities at tertiary institutions.

9. Discussions

The study found that students with disabilities at University of Venda are facing challenges during application and registration due to the lack of career guidance in secondary schools they come from. However there were mixed feelings between the participants on the importance of disclosing disability on the application form. The first group commented that they did not want to disclose their disabilities because of the fear of being labeled as disabled, discriminated against, victimized and stigmatized. It was evident from this study that students with disabilities appreciate academic support offered by University of Venda DU and commented that the support has impact on their performance. The study also reveals that a student with disabilities at University of Venda does not have tutor/personal assistant to the support their learning. Lack of academic training on how to teach and provide learning materials for students with disabilities was also raised as a matter of concern. This finding is similar to other findings elsewhere. In South Africa, [3] found that a number of students with disabilities requested that all study materials and other documentation should be made available in Braille, on audio and on CD or on internet. This study recommended that as a principle of education for all, everybody in higher education should be trained on supporting students with disabilities and involved in the support for all students.

Two of most commonly used strategies were allowed extra/additional time during test and exam, training on the use Adapted Technology to enable them to access information, e.g. internet access, Braille conversion and printing, communication and training. Both strategies received high effectiveness rating from the participants. For the physical infrastructure and environment students with disabilities recommended that Universal Design should be observed when building or designing the environment.

10. Conclusion

The aim of study was to establish the kind of support offered to students with disabilities and how this support contributes towards their academic performance from an in-sider perspective. The findings in this study showed that students with disabilities are receiving a certain level of support that contribute towards their academic performance. However, there are some gaps/barriers that were identified that the institution/DU should give attention to in order to give expected support to students with disabilities. Some examples of these barriers are lack of disability information captured by the institution, lack of career guidance to Special Schools and inaccessibility of learning materials in Braille and other reading formats. The issue of accessible environment was of great concern to students with disabilities as it creates barriers to free mobility. The last section provides recommendations for future research and the conclusion of the study.

11. References


Addressing Language Learning Problems and Learning Disabilities in a Classroom: Evaluating a Large-group Intervention Programme

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1Freelance researcher and consultant, Bengaluru, India
2Tata Institute of Social Sciences, Mumbai, India

1. Introduction

The present study tested the effectiveness of an intervention programme to address language learning problems, designed to be implemented in a regular classroom. The rationale for the intervention emerged from three premises, viz, the practical need for addressing the learning needs of a large group, limited resources for provision of special education, and the issue of labelling children with learning disabilities. Thus, the intervention was planned to address the whole classroom, using the regular teachers for the implementation. The content of the intervention programme had elements of linguistic skills, Vygotskian constructivist approach, and hands-on learning. Some of the skills that were covered were alphabet recognition, grapheme-phoneme correspondence, word reading/recognition, vocabulary building, sentence formation, comprehension, and expression (oral and written). It included games based on various principles of perception, information processing, eye-hand coordination, phonological awareness and orthographic skills, etc. The focus was on developing strategies that would appeal to the multiple sense modalities and different learning styles of the children so that deficits in one area could be made up for by strengthening the others. An uncontrolled or one-group pre- and post-test, quasi-experimental design was used to evaluate the programme, in addition to observation notes of the teacher training and intervention sessions, and teacher interviews.

2. Methods

A Government aided, Marathi medium school from Chinchwad, Pune (a large city in western India), was the location of the study. The choice was convenience driven to facilitate daily visits to the school. The sample comprised of 120 students from two classes of Std IV of the school, with 59 and 61 students in each of the two selected classes, respectively. Out of these 120 students, 23 children had learning problems (children with LP, henceforth), three of them had a learning disability, 12 had below normal IQ and eight had other learning problems. All assessments were conducted for research purposes and not diagnosis. Once designed its face validity was checked by consulting experts from the field and pilot testing was done before implementing the programme. A tool was developed to assess age-appropriate language skills based on extensive reading of related literature. An equivalent version of the pre-test tool was used for post testing. The tool comprised of three sets of skills, reading, writing and comprehension. The number and nature of errors committed was recorded. The programme was implemented on a daily basis within the regular school schedule in separate sessions lasting for 40 to 45 minutes. A total of 78 intervention sessions per classroom spread across November 2009 to March 2010, could be accomplished. The programme was evaluated on its feasibility and impact on learning outcomes. SPSS and QSR N*Vivo were used to facilitate data management and analysis.

3. Results

Findings revealed individual development trajectories, with children varying in extent and speed of improvement. All children exhibited improvement in information processing skills involved in reading and writing such as phoneme awareness, grapheme-phoneme correspondence, coding and decoding skills, and so forth. A reduction in number of errors committed was observed in most of the children post intervention in reading and writing. Children also exhibited improved vocabulary, comprehension and oral expression. Improved language skills seemed to translate into improved academic scores. Teachers found the intervention programme feasible to be executed in a regular school within the limited resources available, along with the regular studies.

4. Conclusion

Due to use of group activities, children developed social skills such as sensitivity towards individual differences, group cohesion and a spirit of helping each other. Group intervention was found to lower demands on resources due to larger target group and positive effects of peer-assisted learning.
Abstract

This study examined the predictive relationship between adult literacy students’ reading assessments in four component sub-skills (phonological decoding, vocabulary, fluency, and spelling) and their gains in reading comprehension from pretest to posttest. Additionally, the adult literacy instructors’ content knowledge in reading instruction and their ability to apply this knowledge was analyzed to determine if there was a relationship between these factors and student reading comprehension gains. Lastly, students’ age was analyzed to determine if this factor predicted reading comprehension gain and whether it interacted with any of the other predictor variables. Assessments were given to 181 adult literacy students and their ten instructors. Results showed that students’ skills in phonological decoding, vocabulary, and spelling were significant predictors of gains in reading comprehension (n=16). Teacher knowledge about vocabulary instruction and reading comprehension instruction were also significant predictors of gains in reading comprehension. Lastly, age was found to be related to fluency in that older adult students performed lower on the fluency measure than did younger adult students.

1. Introduction

Illiteracy in America has been an ongoing challenge since the founding of the United States. With each passing generation progress has ebbed and flowed. While today, on average, American children and adults possess a level of literacy that surpasses that of earlier generations, our national literacy skills are still wanting – especially in light of the much greater literacy demands facing our increasingly information-based society [1].

The United States’ performance on both national and international assessments confirm that, “large numbers of our nation’s adults 16 years of age and older, do not demonstrate sufficient literacy and numeracy skills needed to fully participate in an increasingly competitive work environment. These skills are also needed to function effectively in our complex society, with its large bureaucratic institutions and its complex legal, health care, and retirement systems”[2].

Those with stronger adult literacy skills (i.e., above the Basic Proficiency Level) earn more, have more stable employment, live longer, are healthier, are more likely to engage in lifelong learning, and, importantly, they are better prepared to promote acquisition of stronger literacy skills for their children through their own instructional support and advocacy [3]. In light of this current and persistent literacy problem, the question of how to improve America’s national literacy levels cannot be ignored.

The relationships between the components of reading and reading comprehension have been well documented, most notably in the “simple view of reading” [4]. In this model, “word recognition and language comprehension together account for large portions of variance in reading comprehension” [5].

In other words, the measures of an individual’s word recognition, determined by a decoding test, and language comprehension, assessed by a listening vocabulary test, are profoundly indicative of a person’s overall reading comprehension ability. Neither decoding nor comprehension skills alone can enable one to read; each skill is needed. The former gives a reader the ability to break the code into meaningful parts and the latter enables the reader to understand those parts as representing ideas and concepts. Basically, component reading skills support reading comprehension.

2. Statement of the Problem

For adult education programs, the task of assessing adult students’ skill level in each of the four component skill areas is critically important for proper instruction, especially for the intermediate-level reader (Grade Equivalent 3.4-8.0) [6]. However, component skills assessment poses a substantial challenge in terms of resources. Individual student assessment is both time consuming and costly. For each student, a battery of individual assessments may take between 60-90 minutes and the additional cost for a staff member to administer and score individual student assessments may be prohibitive for some programs. In light of
these challenges, one possible solution is to identify which of the four components skills are most critical to improving adult learners’ reading comprehension levels and providing targeted instruction in that area for students needing to improve that component skill and correspondingly their overall reading comprehension.

3. Body of Knowledge

While the Adult Reading Components Study [7], explored the relationship of component skill levels with reading comprehension skill levels in adult students, they did so at a single point in time capturing a snapshot of learners’ strengths and needs in the components. Similarly, in a recent study the question of component reading skill abilities as predictors of reading comprehension were again measured at one point in time through the administration of a single battery of assessments [8].

Another recent study explored “the relationship between performance on the TABE-R [TABE-Reading Comprehension]...and performance on separate expressive vocabulary, reading fluency, sight-word reading, and phonemic decoding tests”,in part, to determine “which of the component skills accounted for variance in the TABE-R [post-test] performance” [9].

Their findings show “that oral vocabulary and fluency pretest scores are important in explaining post-test TABE-R performance” [10]. This study, however, did not examine the relationship of reading comprehension gain between pre and posttests (controlling for pretest scores).

While these findings are interesting, limitations of the study reveal the need for further research. For adult education programs, linking accurate skill assessment to instruction is critical to improving adult literacy students’ reading comprehension.

The current study explored the predictive relationships between phonological decoding, vocabulary, spelling, and fluency as components of reading and overall reading comprehension gain in a longitudinal pre/posttest research design. By measuring the adult students’ reading comprehension level, and skill levels in the components of reading, upon enrollment in the course, and then measuring their reading comprehension levels on a posttest prior to the students exiting the program, this study analyzed the predictive relationship of these components of reading to gain in reading comprehension as a dependent measure of growth (controlling for pretest scores on the TABE reading comprehension test).

Principally, this research study addressed the following questions: which of the component sub-skills assessed are predictor(s) of improvement in reading achievement (as measured by reading comprehension) for students enrolled in adult literacy instruction? Secondly, since this was not an intervention study and reading instruction was not controlled, each class of adult students did not receive the same reading instruction. In light of this, a measure of teacher content knowledge in reading instruction and their ability to apply content knowledge was analyzed to determine if there was a relationship between these factors and student reading comprehension gains.

Additionally, previous research has revealed that younger and older adult students demonstrate skill differences in the assessed reading component areas [11]. These age differences raise a third question. To what extent is age an important predictor of gains in reading comprehension? Additionally, if age is an important factor, to what extent did it interact with phonemic decoding, vocabulary, spelling, and fluency skills?

4. Methodology

This was a predictive validity study using a non-experimental quantitative longitudinal design. Reading skill assessment data were collected on 181 adult literacy students enrolled in five state-funded adult literacy programs. The reading component skill assessments were group administered to each of eleven adult literacy classes comprised of students reading between the 2nd and 12th-grade equivalent reading comprehension levels based on the Test of Adult Basic Education (TABE) as administered by the student’s adult literacy program at intake. A final sample size, n=116, was used for data analysis as some of the students left the program before completing a TABE reading comprehension posttest or had pretest TABE reading comprehension scores outside the study’s target grade equivalent range of 3.4–8.0.

Student age was used as a moderator variable to determine whether the effects of the four independent measures were affected by students’ age. Posttest scores, partialing out pretest scores, on the Test of Adult Basic Education (TABE), Test 1, Reading (CTB/McGraw-Hill LLC, 2003), were used as the outcome variable. Hierarchical linear regression was used to determine which of the four independent measures were significant unique predictors of reading comprehension gain after controlling for pretest TABE reading comprehension scores. In addition, the predictive value of teacher knowledge, and ability to apply that knowledge, was examined.

One hundred eighty one (181) adult literacy students in eleven classes (from five adult basic education (ABE) programs) located in two neighboring counties outside a large northeastern city participated in this study. A sample size of 97 was calculated during a power analysis; recognizing the effect size could be smaller than predicted, and to
address concerns of participant attrition, a larger sample of adult literacy students was assessed (N=181).

4.1. Assessments

The battery of student reading skill assessments took approximately 60 minutes to group administer. A reading comprehension grade equivalent assessment using the TABE, Forms 9 & 10 was administered at the point of intake into the program. A separate reading comprehension assessment was not administered as part of this study because a TABE reading comprehension pretest and posttest are required in all state/federally funded adult education programs participating in this study. The TABE pretest and posttest scores were used to calculate reading gains for each of the students.

The four reading skill assessments that were administered as part of this study’s battery of student assessments are described below. The Word Detective (Colorado Assessment of Decoding, 2006) is designed to measure a student’s ability to identify the sound of a real word from its letters based on three printed choices presented as misspelled words (pseudo words).

The Level 1 of the ABLE, Vocabulary Test (Karlsen& Gardner, 1986), is an auditory vocabulary assessment and provides a strong indication of the adult student’s listening vocabulary level without the risk of inaccurate vocabulary scores resulting from limited phonological decoding ability. The Test of Adult Basic Education (TABE), Test 7, Spelling, Form 9, Level E (CTB/McGraw-Hill LLC, 2003), measures each student’s ability to recognize the correct spelling of a word. There are twenty items on the assessment and each item is comprised of a sentence with one missing word. Students are to find the correctly spelled word (out of four multiple choice options).

The Test of Silent Word Reading Fluency (TOSWRF) is designed to “measure[s] a student’s ability to recognize printed words accurately and efficiently” [12]. This assessment consists of thirty-two lines of words without spaces between the words. The task for the student is to draw a line between each recognizable word within each line. The test measures the accuracy of word recognition (the correct placement of lines between words), and speed (efficiency), based on the number of lines completed in a three-minute period.

The Assessment of Reading Instructional Knowledge – Adults (ARIK-A) was developed to assess “teachers’ and volunteer instructors’/tutors’ knowledge of providing reading instruction” [13]. It is a 58-item multiple choice assessment (untimed).

4.2. Data Analysis

In order to answer the research questions, partial correlations were examined to identify which individual characteristics and capabilities of teachers and students predicted significant improvement in reading comprehension. Pretest reading comprehension scores were controlled in these analyses. Each of the four students’ subskills (i.e., word decoding, vocabulary, fluency, and spelling) was examined as well as instructional hours, age, and teacher knowledge in alphabetics, fluency, vocabulary, and reading comprehension instruction. Hierarchical linear regression was used to examine the amount of unique variance explained by teacher knowledge and by student entry-level subskills. The final data set was reduced as a result of student attrition and students’ TABE reading comprehension pretest scores falling outside of the 3.4 – 8.0 target grade equivalent range.

5. Results

Partial correlations were examined to identify which individual characteristics and capabilities of teachers and students predicted significant improvement in reading comprehension. Pretest reading comprehension scores were partialed out and hence controlled in these analyses. Each of the four students’ subskills (i.e., word decoding, vocabulary, fluency, and spelling) was examined as well as instructional hours, age, and teacher knowledge in alphabetics, fluency, vocabulary, and reading comprehension instruction.

Results revealed that five predictors were significantly correlated with posttest reading comprehension: student word decoding, r = .23, p < .05; student vocabulary knowledge, r = .23, p < .05; student spelling knowledge, r = .23, p < .05; teacher knowledge about vocabulary instruction, r = .22, p < .05; and teacher knowledge about reading comprehension instruction, r = .29, p < .01. The other variables were not significantly correlated with the reading comprehension posttest, all ps > .05. The latter findings indicate that instructional hours, age, student reading fluency, student spelling, and teacher knowledge of alphabetics instruction were not significant linear predictors of improvement in reading comprehension and, as such, were not included as predictive variables in subsequent analysis.

Hierarchical linear regression was used to examine the amount of unique variance explained by teacher knowledge and by student entry-level subskills. In the first model, student pretest scores were entered first to control for entry level differences in reading comprehension. Teacher knowledge was entered either second or third, and likewise student subskills were entered either second
or third. Results revealed that both predictors explained significant unique variance in the model when each was entered third after the other two had been entered. The total variance explained was 36%. Teacher knowledge explained .065% unique variance, and student subskills in word decoding, student vocabulary knowledge, and student spelling knowledge explained .075% unique variance (see Table 1). These findings address the first and second research questions. They show that both student and teacher capabilities predicted the extent of improvement in reading comprehension. The magnitude of the statistically significant correlation coefficients shows a small but educationally meaningful effect.

Table 1: Hierarchical Linear Regression with Student Spelling, Decoding, Vocabulary and Teacher Knowledge about Vocabulary, and Reading Comprehension Instruction as Predictors of Student Reading Comprehension

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables Entered</th>
<th>R²</th>
<th>R² Chang.</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TABE Pretest</td>
<td>.216</td>
<td>.216</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>Student Spelling, Decoding &amp; Vocabulary</td>
<td>.296</td>
<td>.080</td>
<td>.007</td>
</tr>
<tr>
<td>3</td>
<td>Teacher Vocabulary &amp; Comprehension</td>
<td>.362***</td>
<td>.065*</td>
<td>.005</td>
</tr>
<tr>
<td>2</td>
<td>Teacher Vocabulary &amp; Comprehension</td>
<td>.287</td>
<td>.070</td>
<td>.005</td>
</tr>
<tr>
<td>3</td>
<td>Student Spelling, Decoding &amp; Vocabulary</td>
<td>.362***</td>
<td>.075**</td>
<td>.007</td>
</tr>
</tbody>
</table>

* Unique Variance Explained = .065 (Teacher Knowledge)
** Unique Variance Explained = .075 (Student Performance)
*** Total Variance Explained = .362

In order to address the third research question, the relationship between age and the other student and teacher variables were examined using partial correlations. Age was significantly correlated only with student fluency scores. To further examine the age-fluency relationship, students were grouped into five categories ((1 = 19-29, 2 = 30-39, 3 = 40-49, 4 = 50-59, 5 = 60+) and an ANOVA using five levels (i.e., 60, 65, 70, 75, 80) as the independent variable was conducted. Results show that age was found to be related to fluency in that older adult students performed lower on the fluency measure than did younger adult students (see Table 2). This finding supports previous research results showing reading fluency skills lowest for younger and older adult literacy students [15].

6. Conclusion

The present study yielded significant findings. First, student skill level in word decoding, spelling, and vocabulary were significant predictors of reading comprehension gain during students’ course of study in an adult literacy program suggesting support for the “simple view of reading” in this adult learner population. Secondly, teacher knowledge about vocabulary instruction and reading comprehension instruction also predicted student gain in reading comprehension. These findings answered the first two research questions. With respect to the third research question, age was found to be related to fluency in that older students performed lower on the fluency measure than did younger adult students.

One objective of the present study was to determine whether one or another of several reading component sub-skills predicted adult literacy students’ reading comprehension gains. The abilities examined were word decoding, vocabulary, fluency, and spelling. Results revealed that word decoding, spelling, and vocabulary were significant predictors of reading comprehension gain after controlling for students’ reading comprehension level at the beginning of instruction. These three components represent the critical abilities comprising the “simple view of reading” and confirm the importance of print-based skills (word decoding, spelling) and meaning-based skills (vocabulary) as predictors of reading comprehension. This finding supports the work of Strucker and Davidson (2003), in that it is consistent with the relationship of print-based skills and meaning-based skills as critical predictors of reading comprehension ability. In the present study, this relationship was found to apply to reading comprehension gain scores as well [14].

Findings from the present study support a few recommendations for the field of adult literacy. Since word decoding, spelling, and vocabulary were significant predictors of reading comprehension gain in this study, student assessment and instruction in these areas is warranted. For example, while not all intermediate level adult literacy students need phonemic decoding skill instruction, it is critical that
teachers determine through assessment which students do need it and in what specific areas. Recognizing the strong relationship between phonics decoding and spelling skills, assessment and systematic instruction in spelling is recommended. Additionally, the significant contribution vocabulary knowledge made to reading comprehension gains suggests that emphasis should also be placed on vocabulary development for adult readers at the intermediate level (GE 3.4 – GE 8.0). While this finding confirms the important role vocabulary plays within the components of reading model, its predictive relationship to reading comprehension gain points to the need for teaching vocabulary words early in the reading process (pre-intermediate level).

This recommendation is further supported by the finding that teacher knowledge in the components of reading instruction (vocabulary and comprehension) significantly predicted student reading comprehension gains. In other words, the findings show that both student and teacher capabilities predicted the extent of improvement in reading comprehension. These two sets of findings when combined reveal that all of the reading components play an important role in reading comprehension. As such, the present study’s findings suggest that professional development for teachers, and reading instruction for intermediate level adult students, focus on all reading components. The instructional focus should be specified through careful student assessment in the components of reading.

The effects of teacher knowledge in reading instruction on reading comprehension gain is an important finding of this study as questions over teacher preparation and professional development continually swirl within the adult education community. Despite the inherent challenges facing teacher preparation in reading instruction, the reality is, it needs to be done. At the program level, one approach might be to use the ARRIK-A as a means of assessing teacher instructional knowledge in a comprehensive and low-cost way. Targeted professional development in the components of reading could then ensue. The findings of this study suggest that teachers need a good overall knowledge of reading instruction and ability to apply this knowledge during instruction.

Future studies should continue to examine the relationship of teacher knowledge on student reading comprehension gain; for example, studies that could tease apart the separate contributions of teachers’ general knowledge and instructional innovations as they affect student gain. Also, perhaps there should be an increased and more deliberate focus on reading theory as an important aspect of adult education staff development.

The present study explored the relationships between both student and teacher variables and reading comprehension gains for a sample of intermediate-level adult readers. Efficiency and economics were driving interests in determining which factors predicted significant gains in reading comprehension for these adults. As with most complex problems, no such simple finding emerged. In the end, a clear picture of the need for comprehensive assessment and corresponding instruction in all of the components of reading became clear.

Still, this finding is good news in that it suggests a very commonsense approach to teacher preparation and student instruction in reading. That is, teachers need comprehensive basic knowledge of reading theory and the components of reading (alphabets, vocabulary, fluency, and comprehension) in order to successfully help their students achieve. Both teacher assessment and professional development, as well as student assessment and corresponding instruction will be needed to effectively address the critical challenges facing low-literate adults.

7. References
Session 4: Inclusive Education

- Examining General and Special Education Teachers’ Perceptions of Inclusion (Author: Donna Tortu-Rueter)

- Teaching Students with Learning Difficulties in Botswana Schools through Inclusive Education (Author: Jane Iloanya)

- Learning Challenges faced by Blind Students at a Historically Disadvantaged South African University (Authors: Clever Ndebele, Gadisi Milton)

- Learning through Art in Medical Rehabilitation (Author: Awad Alyami)
Examining General and Special Education Teachers’ Perceptions of Inclusion

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Abstract

Previous research indicates that the success of inclusive practices in the general education classroom depends on teachers’ perceptions of inclusion. The purpose of this quantitative study is to examine general and special education teachers’ perceptions of the inclusion of students with disabilities in the general education classroom. The study will seek to identify if significant differences exist in the perceptions of general and special education teachers in four areas identified in previous research. These areas are professional development, supports, levels of use, and beliefs about inclusive practices and their effects on students. The researcher will invite 518 general and 116 special education middle school teachers in three suburban Southeastern Pennsylvania school districts to participate in the study. The results of The Inclusion Inventory [2], an instrument designed to survey educators’ perceptions of inclusion, will be reported.

1. Introduction

School districts still struggle, despite existing legislation and previous litigation, with meeting targets for educating students with disabilities inside the general education classroom for more than 80% of the school day [2, 24, 34]. United States federal law mandates access to the general curriculum, also known as inclusion, for all students with disabilities. Specifically, the main purpose of the Individuals with Disabilities Education Improvement Act of 2004 (IDEIA) [14], was to ensure the equal protection under the law of students with disabilities. Educating all students with disabilities in the least restrictive environment is one of the law’s six principles. The law defines access to the general curriculum, also known as the Least Restrictive Environment (LRE), as educating children with disabilities, to the maximum extent possible, with children without disabilities. The United States Department of Education considers 80% or more of the school day spent in the general education classroom (primary placement) as meeting this standard [1].

Removing a student from the regular education classroom should only occur when access to the general curriculum with supplementary aids and services is not achievable [33]. Much of the research has stated that positive perceptions of the teachers and administrators – those in charge of implementing inclusion – have a great effect on its success with students [5, 6, 10, 12, 29, 33]. For example, Buell, Hallam, Gamel-McCormick, and Scheer [4] found a positive relationship between a teacher’s understanding of inclusion and that teacher’s beliefs that he or she can get through to a student. In addition, Karnens, Loprete, and Slostad [16] found that teacher perceptions influence the overall success of inclusive practices and that teachers’ negative perceptions about students with disabilities in the regular education classroom affect teacher behavior negatively. Also discussing how school districts and others still struggle with attaining this goal are Bender, Vail, and Scott [3] who argue that the success of federally mandated legislation depends on positive general education teacher attitudes.

Research studying the perceptions of teachers and administrators with respect to the challenge of including students in the general education classroom successfully, despite the mandate of previous legislation and litigation, has spanned almost two decades [5, 10, 12, 29, 33]. Thus far, the research states that teachers’ and administrators’ perceptions include various areas that need improvement with respect to successful inclusion. These areas are professional development, administrative support, and planning time [5, 6, 10, 12, 15, 25, 29, 33, 34].

2. Purpose of Study and Research Questions

The purpose of this study is to examine general education and special education teachers’ perceptions of inclusion.

The research questions are:

1. Are there significant differences in the perceptions of general and special education teachers toward professional development and what teachers need in order to be prepared for implementing inclusive practices?

2. Are there significant differences in the perceptions of general and special education teachers toward receiving necessary supports for inclusive practices?
3. Are there significant differences in the levels of inclusive practices used daily among general and special education teachers?

4. Are there significant differences in general and special education teachers’ beliefs about inclusive practices and their effects on students?

3. Literature Review

The review of the literature focuses on general education and special education teachers’ perceptions of inclusion and the components of inclusive practices that make educating students in the least restrictive environment possible. For the purposes of this literature review, four components mentioned in the research that affect teacher perceptions of inclusion are: (1) professional development/teacher preparation, (2) support for inclusive practices, (3) teacher use/implementation of inclusive practices, and (4) teacher beliefs about inclusion. Fuchs [10] states that teachers’ negative feelings about inclusion and inclusive practices can negatively impact teacher behaviors, student learning, and the success of inclusive practices in general. As a result, the review specifically discusses these four areas - (1) professional development/teacher preparation, (2) support for inclusive practices, (3) teacher use/implementation of inclusive practices, and (4) teacher beliefs about inclusion. The literature recognizes that positive perceptions about these areas are necessary for successful inclusion. In addition, the literature discusses how these four areas specifically influence teacher perceptions of inclusion.

3.2. Professional Development and Teacher Preparation

IDEIA 2004 and NCLB both state that the responsibility of academic achievement of students with special needs lies with all teachers involved, meaning general and special education teachers. The task of providing students with disabilities with access to the general curriculum, despite the legislation mandating that schools do so, is still a challenge for educators today. Regardless of the efforts that teachers and administrators have made to create successful, inclusive classrooms, they continue to cite challenges at every building level as well as at the district and state level [10, 13, 18, 26, 32].

3.3. Support for Inclusive Practices

General and special education teachers recognize that sufficient support for inclusive practices such as adequate planning and collaboration time, an appropriate amount of instructional time associated with providing accommodations and modifications, and administrative and special education support are necessary components for the success of inclusive practices [8, 10]. Research indicates that positive teacher attitudes about inclusion result from “adequate time for collaboration and planning, sufficient training and resources, and support from specialists and administration” [8, p. 48]. In addition, the general education teachers stated that most of the responsibilities for planning and grading assignments fell on the general education teacher [10]. General education teachers viewed special education teachers as lacking in support of making accommodations associated with general education instruction, having an unequal distribution of duties, and lacking planning time.

3.4. Teacher Use and Implementation of Inclusive Practices

Another factor that affects teacher perceptions of inclusion is the extent to which teachers use and implement inclusive practices. While there is evidence to support the benefits of the use of inclusive practices, teachers still struggle with their implementation [11, 19]. In addition, teachers feel unprepared and lack confidence in their abilities to meet the needs of students in inclusive settings (Baker & Zigmond, 1995 and Hines & Johnson, 1997 as cited in [6, 17]). Effective teacher use and implementation of inclusive practices affects student learning and is, therefore, necessary for successful inclusion according to Scott, Vitale, and Masten, [32]. They cite Friend and Bursuck (1996) who found that the use of instructional adaptations that
facilitate student learning is one aspect of successful inclusion.

In addition to the differences in defining access to the general curriculum, researchers have found that perceptions of inclusion among teachers were mostly positive specifically regarding the importance of the sense of community that it provides for students [21, 23, 28, 31]. However, the studies reveal that while teachers are generally supportive of the concept of inclusion, they still voice concerns about the day-to-day issues that they face with its implementation. Mitchell [22] also found that while teachers believe that inclusion has a positive effect on students, they struggle to include students with more significant disabilities.

3.5 Teacher Beliefs about Inclusion

Teacher attitudes toward access to the general curriculum for students with significant cognitive disabilities in particular, often emerge out of frustration with how to define access, especially at the secondary level [7]. Because IDEA does not specifically define the physical location of access to the general curriculum, much of it is up for interpretation on a case-by-case basis. In addition, general educators often differ from special educators as to the definition of access to the general curriculum. As a result, teacher attitudes about access to the general curriculum for students with significant cognitive disabilities in particular can greatly affect the delivery of services to such students. For example, general education teachers may define access to the general curriculum as receiving the same curriculum and materials as students without disabilities in a general education classroom with support from a special education teacher or a paraprofessional aide. Special education teachers may define access to the general curriculum as access to an adapted curriculum and materials that are relevant and provide meaningful learning geared to a student’s individual needs [7].

4. Methodology

The researcher will use survey research to examine general and special education teacher perceptions regarding including students with disabilities in the general curriculum. The researcher chose this descriptive research format to describe the sample’s perceptions about specific variables [20]. The researcher selected this method because of the three major characteristics that surveys possess.

4.1 Participants

The sample for this study is middle school general and special education teachers in three suburban school districts in Southeastern Pennsylvania. The middle schools range from sixth through eighth grades. There are approximately 518 general education and 116 special education middle school teachers total in all three school districts during the 2013-2014 school year.

4.2 Sampling Procedures

The researcher will use nonrandom purposive sampling to identify schools that meet the criteria for selection in the study. The researcher will use this sampling method based on the researcher’s judgment from prior information that the sample will provide the appropriate data. According to the definition of purposive sampling by Fraenkel, Wallen, and Hyun [9], the researcher used previous knowledge of the sample and the specific purpose of the research as the basis for selecting the sample in this study. Therefore, this method precludes generalizing the results beyond these three school districts because the researcher’s judgment may be in error.

4.3 Instrumentation Description

The researcher will use The Inclusion Inventory [2] in this research study and has permission to use the instrument from the author. Participants will complete the seven of the eight sections of the original survey.

4.4 Pilot Study

After obtaining IRB approval from the researcher’s university, the researcher will conduct a pilot study of the inventory in a neighboring school district’s middle school. The researcher will send a letter to the middle school principal selected for the pilot study asking permission to survey approximately five general education and five special education teachers in the building as participants in the pilot study. A follow up e-mail will then be sent to the principal to confirm permission to have their teachers participate in the pilot study. The middle school for the pilot study was selected because of similarities with the schools being asked to participate in the dissertation research with respect to geographic location and demographics. Teachers participating in the pilot study will be asked to provide feedback with respect to access to and navigation within the online survey, any technical difficulties experienced the clarity of instructions, typographical and grammatical errors, assessing questions, and length of time to complete the survey [27]. The intention of the pilot study is identify any problems that may arise during data collection and will not test the reliability and validity of the survey. Upon completion of the pilot study, the researcher will
make appropriate revisions and summarize the results of the pilot.

4.5 Data Collection Procedures

A letter will be sent to each of the eleven middle school principals in the three school districts asking permission to survey the teachers in their buildings as participants in this study. Language in the principal letters for two of the three school districts will include additional information about the researcher being a former teacher in the district. A follow up e-mail will then be sent to each middle school principal to confirm permission to have their teachers participate in the study. Teacher names and e-mail addresses will be collected from each of the middle schools’ websites’ faculty pages. General and special education teachers are identified on ten of the schools’ websites, and a list will be obtained from the eleventh school to identify which teachers on the faculty are special education teachers. An e-mail will be sent to each teacher’s school e-mail address asking him or her to participate in the study via a recruitment letter that will be attached to the e-mail. Language in the teacher letters for two of the three school districts will include additional information about the researcher being a former teacher in the district. A link to the survey will be embedded in the e-mail and by clicking on the survey link, teachers will give consent to participate in the study.

Participants will complete the survey using the online survey tool Qualtrics. The researcher will send out the survey and will collect the data after the researcher’s doctoral committee and the university IRB approve of this proposal. The researcher expects to collect data in April 2014.

Upon IRB approval and formal approval from each principal, the researcher will e-mail the selected general and special education teachers at the eleven middle schools inviting their participation in the dissertation study. The e-mail will highlight the purpose of the study and introduce them to the survey. By taking the survey, they are implying consent to participate in the study. Two cycles of follow-up e-mails beginning eight days after the first round of e-mails will be sent to participants to elicit a higher response rate. The researcher will analyze the data using the online survey tool, Qualtrics.

4.6 Data Analysis

To address the four research questions, the responses in questions 23 through 82 of the survey instrument will be analyzed using descriptive statistics. For each survey question, the researcher will calculate the mean and the percentage. The researcher will also report the mean and percentage for responses to the sub-scales in the survey.

In addition, the data will be analyzed using between subjects t-test computations. All seven sections of the survey will be analyzed with a separate between subjects t-test, for a total of seven t-tests. This test is used to compare the mean scores of two different groups to determine if the means of the difference between the two groups is statistically significant [9]. To control for the error associated with multiple t-tests, the researcher will do a Bonferroni correction.

5. Limitations

Limitations in this study include small sample size and an assumption by the researcher that the sample will provide the data that she needs [9]. As a result, the small sample size and the assumption by the researcher cannot guarantee the generalizability of the results.

6. Conclusion

This study is part of a doctoral dissertation in educational leadership. The researcher intends to administer the survey to participants during the spring of 2014, with data collection, data analysis, and results reported by the end of the summer of 2014.

7. References


Teaching Students with Learning Difficulties in Botswana Schools through Inclusive Education

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Botho University

Abstract

Botswana is one of the countries in Africa actively involved in the promotion of education for children with special needs. Botswana’s Revised National Policy on Education (RNPE) of 1994, clearly states that government is fully in support of education for all children, including those with special needs. This paper focuses on the effectiveness of mixed ability teaching at the basic education level. It examines how teachers handle learners with learning difficulties. Effective mixed ability teaching requires that teachers be well trained, passionate and committed about handling and teaching mixed ability classes. Every child can learn, regardless of the challenges that the child faces. In this regard, teachers need to diagnose and find out where the child excels and motivate him/her to reach his/her potential.

“‘There is nothing more unequal than the equal treatment of unequal people’” (Thomas Jefferson)

1. Introduction

The issue of inclusive education is becoming a global trend in education. Inclusive education involves integrating students with special needs in education with those who do not have special needs, to study in the same learning environment. Friend describes inclusion in education as the integration of students with disabilities into the general education setting with special education supports that aid in the students’ access to the general education curriculum [9]. Inclusive education ensures that all children in the neighbourhood attend the same regular school and classroom, regardless of their differences in their learning needs, as well as their disability, health, social, and economic background [4]. Inclusive education enables school children to receive appropriate quality education and assists them to attain their innate potential, regardless of their physical and economic condition, sex and learning needs. In other words, inclusive education enables all students to receive education in a non-restrictive environment. Botswana is one of the countries in Africa actively involved in the promotion of education for children with special needs. Botswana’s Revised National Policy on Education (RNPE) clearly states that the government is fully in support of education for all children, including those with special needs (RNPE:1994).

In pursuance of the above, special schools or research centres have been built to show government’s commitment toward helping children with special needs. Teacher training and University curricular have been modified to include awareness courses in special needs education. Botswana’s private institutions of higher learning, primary and secondary schools have special needs departments where children with learning difficulties are given special assistance, to enable them cope with the challenges of being in the same schools with the ‘gifted’ children.

This study sets out to examine the phenomenon of inclusion in Botswana schools and the teaching of students with learning difficulties at the basic education level. Basic education in Botswana covers the first ten-year period of education, starting from seven years of primary education to three years of junior secondary schooling. The government of Botswana provides free basic education to all children and they are all given the opportunity to attend school, regardless of their learning abilities. This study aimed at finding out the role of teachers in the management of students with learning difficulties. It focussed on the management of ‘slow learners’ when put in the same learning and teaching environment with ‘fast learners’ or academically ‘gifted’ students.

The effectiveness of ‘mixed ability’ teaching formed an integral part of this research. My research focused on pertinent questions such as:

i. How do teachers handle students with special needs?
ii. Are they motivated or demotivated by the teaching and learning environment?
iii. Does mixed-ability teaching yield good results?

A conclusion is drawn by summarising the main themes that emerged from the study.
2. Inclusive Education in Botswana

Inclusive education in Botswana has received strong recognition and support by the government. Both the Revised National Education Policy (RNPE 1994) and Botswana’s vision 2016 [5] stressed the need for all children to be provided with access to education. Since the Jomtien Conference of 1990, Botswana has actively participated in all international deliberations on Education for All (EFA). Following the promulgation of the Revised National Policy on Education, a Presidential Task Group was established in 1997 to come up with a long-term vision for the country. The outcome was the adoption of a report entitled ‘Vision 2016: Towards Prosperity for All [5]. The main goals of the national vision, which include building an educated and informed society, fully subscribe to the philosophy, aims and objectives of the education policy. At the core of the Vision for the future, is the issue of improvements in the relevance, quality and access to education, which includes education for people with special needs.

It is estimated that, about 10-15 percent of school going age pupils in Botswana are still not in schools. Most of these children are those with disabilities, learning difficulties, street children, child labourers, orphans, remote area dwellers, and those from poor families [6]. Subsequently, the Ministry of Education has developed policies and programmes aimed at ensuring that education opportunities are availed to all children of Botswana. The policy also promotes the integration of the disabled children in ordinary schools and the community at large.

In Botswana, Inclusive curriculum is the curriculum that is made accessible to all learners, regardless of their ability, sex, ethnicity, colour or creed. This curriculum has interconnected components such as curriculum design, language of instruction, selected content, teaching/learning approaches and instructional support materials that cater for learners of diverse socio-economic and cultural contexts [6]. The Curriculum Development Division of the Ministry of Education and Skills Development has adopted a universal design of learning (UDL) which offers differing activities that cater for learners of different abilities. At the primary school level the curriculum model uses a spiral approach which allows for constant revision and a gradual development of concepts. This approach makes it possible for both slow, average, and fast learners to be catered for during implementation at the classroom level. One principal element that affects the inclusiveness and non-inclusiveness of a curriculum is the content to be taught in the school subjects. To ensure a balanced selection of content, the curriculum in Botswana is developed through broad based national panels, where individuals or representatives of stakeholder institutions are selected from different parts of the country. The diverse national representation allows for the promotion of inclusion in the education system.

From the foregoing, it can be gleaned that government policies in Botswana are geared towards promoting inclusion in the education system. Government spends a lot of money to ensure that education is accessible to all children in the country, including those with special needs. There is free basic education in Botswana, and there are no restrictions in terms of admission criteria. From the primary to the junior secondary level in government owned schools (public), automatic progression is allowed. The main purpose of this, is to make sure that the citizens of Botswana receive free Education for All (EFA) and to enable them grasp reading, writing, and numeracy skills.

One of the major problems facing policy making in Africa, is the issue of implementation. Government has put in place policies to ensure that inclusive education is promoted in Botswana. Problems often arise when it comes to implementation. Are teachers ready to teach mixed-ability classes efficiently and effectively? Are teachers psychologically and emotionally prepared to face the challenges of teaching mixed-ability students? Do teachers receive training in the management of mixed-ability classes? These are some of the pertinent questions that my research will try to address.

3. Methodology

This is a qualitative research, which specifically focused on the phenomenon of mixed-ability teaching using, inclusive education. The qualitative approach of the phenomenological interpretative type was used to understand how the respondents will give meaning to and interpret the phenomenon which is being studied from their own subjective position. Qualitative research offers opportunities for conducting exploratory and descriptive research that assumes the value of context and setting and also allows the researcher to experience a deeper understanding of the participants [12]. For a study of this nature, a qualitative research approach was considered appropriate because it allows for an in-depth and detailed description of events. It uses the natural setting as the source of data, thereby enabling the researcher to observe, describe and interpret settings as they are, maintaining an “emphatic neutrality” [8, 13].

The qualitative research method made it possible for me to act as the “human instrument” of data collection. For this study, I used semi-structured interviews to collect data from teachers of mixed-ability classes. Relevant literature from books and journal articles were
used to augment the data. A total of ten participants were involved in the data collection process. Four primary school teachers, 4 junior secondary school teachers, and two senior members of staff from the special education department of the Ministry of Education in Botswana were interviewed. The interview questions were related to the issue of mixed-ability teaching at the basic education level in Botswana. The purpose of the interview was to find out how teachers handle teaching and learning in a mixed-ability set up; to determine if teachers motivate or demotivate students in mixed ability classes; and if mixed-ability teaching yields good results or not.

4. Findings

Findings from the research indicated the different ways the interviewees felt about mixed-ability classes in Botswana. The responses of the different categories of teachers were found to tally, even though, there were some minor differences. The themes that emerged from the study are discussed under the following subheadings.

4.1. Handling students with special needs in a mixed-ability class

Children with learning difficulties constitute a great percentage of handicapped children within the school system [1]. In Botswana, with the introduction of separate community junior schools in the early 1980s and the issue of automatic promotion from primary to junior secondary schools, the problem of handling mixed-ability classes came to the fore. Children with learning difficulties abound at the basic education level in Botswana schools. The reason for this is not far-fetched. The 1990 Jomtien Conference, which emphasised on giving equal education opportunities to all children, made it imperative for the participating countries to give equal and open access to education. Botswana was one of the countries that signed the Jomtien Agreement of 1990.

The teachers that I interviewed stated categorically that, there are many loopholes and challenges in teaching mixed-ability classes. As the name implies, mixed ability means that there are individual differences in the learning abilities of the pupils at the primary school and junior secondary levels in Botswana. In a class of about forty students, there are the fast, average, and slow learners. Regrettably, most teachers teach average and fast learners, then the slow learners suffer and miss out a lot. One of the interviewees lamented that: “Teachers’ learning and teaching objectives/outcomes indicate that, most teachers do not cater for all groups of learners. Some teachers recognise only fast learners.” Even when some teachers put students in groups, they think about the teaching resources, not the abilities of the students, which affects the effective handling of children with learning difficulties in mixed-ability classes. In classroom discussions, some teachers focus more on the fast learners, and give names to the academically weak ones.

Worse still, some instructional materials used by teachers do not cater for the abilities of all the students in the actualisation of the intended learning outcomes. While stressing the effects of teachers’ attitudes towards inclusion, Avramidis and Norwich [2] state that, this could probably be due to limited or non-existent training for teachers to acquire integration competencies in certain countries. Vaughan et al [16], attribute some teachers’ difficulties in handling mixed ability classes to class size, inadequate resources, and lack of adequate teacher preparation. In support of the above, some teachers that I interviewed stressed the fact that they teach between 35 to 40 students in their classes. Unfortunately, in some schools, the academically weak students constitute the majority in these classes. One of the interviewees disclosed: “Initially, I found it difficult to teach mixed-ability classes, especially because of the automatic progression system from primary to junior secondary level in Botswana”

The interviewees, however, admitted they had to devise some coping mechanisms to be able to help the students. One might therefore concur with [2], that teachers’ negative or neutral attitudes at the beginning of an innovation such as inclusive education may change over time, as a result of experience and the expertise that develops in the implementation process.

4.2. To mix or not to mix?

All classes are to some degree, made up of learners who differ in many ways [11]. The students may have different strengths, weaknesses, and approaches to learning. They may also react differently to various teaching methods and learning environments. The interviewees shared different opinions on the effectiveness and efficiency of mixed ability teaching. Some believe that the slow learners retard the progress of fast learners in mixed-ability classes. In Botswana, where there is automatic progression from primary to junior secondary schools, sometimes, the average and slow learners constitute the majority of the class size. Some of these slow learners are really slow, while some could improve, with proper learning support from the teachers. Some teachers complain that, they have a syllabus to cover and it becomes difficult with the pace of the slow learners; some weaker students relax and do not even try; the weaker students sit at the back and
In mixed ability classes, there is the danger that the worthwhile abilities in order to make teaching and learning attitude and acceptance, some teachers feel that, the teachers who handle mixed-ability classes with positive feelings about mixed-ability classes. Unlike some findings of my study indicate that teachers have mixed children, including those with special needs. The government of Botswana is fully in support of education for all are mixed-ability schools. The government of Botswana do not give equal amount of opportunities to all learners to participate in class discussions in the mixed ability classes, the situation can pose some serious challenges in the management of mixed ability classes.

Despite the challenges of teaching mixed-ability classes, some of the interviewees stated that they do not mind teaching mixed-ability classes, because of the advantages that come with it. Mixed-ability classes give the teachers and the learners the opportunity for different types of learners to come together and share ideas. Every learner is special in one way or the other. They come to class with different knowledge, attitudes, aptitudes, ideas, experiences and interests, which can contribute to an interesting and interactive learning experience. Mixed-ability classes provide opportunities for teachers to develop themselves professionally, as they devise different problem solving approaches to the difficulties they face and test many teaching approaches and methodologies [10, 15]. The fact is that, a mixed-ability class relies heavily on the expertise of the teacher in helping a wide range of pupils to achieve their potential [7].

5. Conclusion and Recommendations

All schools at the basic education level in Botswana are mixed-ability schools. The government of Botswana is fully in support of education for all children, including those with special needs. The findings of my study indicate that teachers have mixed feelings about mixed-ability classes. Unlike some teachers who handle mixed-ability classes with positive attitude and acceptance, some teachers feel that, the government should stream students according to their abilities in order to make teaching and learning worthwhile for both teachers and the ‘gifted’ children. In mixed ability classes, there is the danger that the more able might not be stretched enough, while the less able are neglected.

Based on the above, the following recommendations are made to help mixed-ability teachers attain the desired learning outcomes. Teachers need to be aware that a class is mixed-ability because children have different strengths and weaknesses and develop at different rates. They have different preferences and styles for learning and displaying their work. A teacher should create a supportive learning environment in the classroom, where learners are recognised as individuals with differences in abilities. This will boost their confidence and help them perform to the best of their ability.

Teachers should use good classroom management techniques to enable all categories of learners to be actively involved in the learning process. Students should be positively motivated through praise and encouragement, giving good instructions, knowing students names, monitoring their activity and giving timely and constructive feedback.

Leaders should be allowed to work in groups and the lessons should be highly interactive to give every learner a fair chance to participate. Learners should be taught how to be creative and resourceful. Every learner is special in one way or the other. Slow learners should be given special attention to boost their self esteem.

Teachers should make their lessons interesting by varying the activities and methodologies of instruction. A boring class is not good for either fast, average, or slow learners.

Every child can learn, regardless of the challenges that the child encounters, therefore, teachers need to diagnose and find out where the learner excels and encourage him/her to reach their potential.

6. References


Learning Challenges faced by Blind Students at a Historically Disadvantaged South African University

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University of Venda

Abstract

This study sought to examine barriers to learning for blind students at a South African University. Premised on the qualitative design, data were collected through a semi-structured focus group interview with 4 blind students who were identified through purposive sampling. Emerging themes from the data were identified through content analysis of the student verbatim responses on the learning challenges faced in the normal lecture hall. The study found that reasonable accommodation was not provided for blind students in the lecture halls at the university under study, as study materials in the library were not available in either Braille or electronic form, computers in the university library and main stream computer laboratories were not accessible to Blind/Partially Blind students, lecturers seemed not trained to teach Blind/Partially Blind students with some lecturers using PowerPoint presentations while teaching when blind and partially students could not access the screens. The study recommends universal design for all learning facilities, thorough training for all staff on teaching students with various disabilities and the development of a disability policy in the university.
Learning through art in Medical Rehabilitation

Awad Alyami
King Saud University, Saudi Arabia

Abstract
This poster introduces learning and relearning after a physical trauma with patients at a medical rehabilitation hospital in Saudi Arabia. In an art therapy program, patient attend art therapy sessions for physical and psychological rehabilitation to help them overcome their recently acquired physical injuries. Ranging between upper limbs to lower limbs disabilities, and sometimes cognitive disabilities, patients are making paintings and sculptures with the aim of correcting or relearning how to use their limbs again after their acquired physical injuries. The poster will administer learning techniques for physically disabled individuals through art. Slides will show the process and the product of such an experience that may aid in the understanding of the use of art as rehabilitation and learning with such a population. The objectives are as follows:

- To administer artistic learning techniques with physically disabled individuals.
- To share the results of teaching in rehabilitation settings.
- To interact with colleagues in education about art education for physically disabled individuals.
- To discuss the requirements of teaching art in medical settings.
Session 5: Interaction and Cultural Models of Disability

The Development and Application of Intelligent Technology among Visually Impaired People
(Author: Li Jingjie)

Identification of Child Rearing Practices of Nomadic Mothers Residing in Urban Areas of Lahore City
(Authors: Misbah Malik, Abid Hussain Ch., Mumtaz Akhter, Ghulam Fatima)

Sensitising South African Universities on Special Needs Education: The Case of Sign Language Interpreters
(Author: Paul H. Nkuna)
The Development and Application of Intelligent Technology among Visually Impaired People

Li Jingjie
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Abstract

As the use of single-chip technology gradually matures, it offers great convenience for the blind. This paper proposes ultrasonic ranging module function, infrared thermometry module functions, bionics principle, GPRS module and module of GPS intelligent positioning navigation system for the blind, which not only has the function of the sensor, but also the function of voice recognition navigation, meeting the travel demand of the blind and thereby improving the quality of life for the blind.

1. Introduction

As a special group in society for the blind, the need to give them more care and care, so they can live more independently. The biggest problem in the life of the blind is how to walk safely.

With the development of modern science and technology, as well as the mature application of single-chip technology, we can obviously feel the impact of the modern science and technology brings to our life, which to a large extent changed people's way of life, learning style and way of working. It can be said that technology has affected every aspect of our lives. So, whether the development of science and technology can also bring convenience to the needs of special people's life? Can they enjoy the convenience brought by science and technology like normal people, and improve the quality of life, help them live more independently?

Under normal circumstances, the development and utilization of science and technology is more of a focus on the demands of the normal, and ignore the life of special groups in different degrees. Although scientists around the world have made many research achievements in the field of special groups, they cannot fully meet the needs of the special groups.

2. GPS Navigation Equipment

Currently, GPS navigation equipment for the blind has been on sale on the market. The common GPS navigator for the blind installs devices such as GPS positioning device, directing gyroscope, laser range finder. It also adopts tactile feedback screen to enable the blind to operate, on which braillehi can be displayed. The laser range finder and gyroscope guidance can replace users' dependence on seeing-eye dog and walking stick. However, there are still many deficiencies, as deviation exists in the detection and it brings a lot of trouble.

2.1 Traditional Blind Navigation Devices

The traditional blind navigation devices are ordinary working sticks. The blind people determine the direction of their walk and whether to stop by banging on the ground and the surrounding objects. There are a lot of shortcomings for the stick, and the main drawback is missing far obstacles and the dangling objects ahead of the blind. Similar problems exists in the guide system in current domestic production, for instance: the navigation bar with loudspeaker, advantage of which is its emitting light at night to remind passers-by and drivers, disadvantage is its damageable and too sensitive; The blind glasses detecting obstacles ahead, which advantage is small, and disadvantage is small measuring range. In addition, the blind navigation system from abroad is expensive, not suitable for general public to use. Based on the above disadvantages, the intelligent navigation device based on single-chip and infrared detection I propose can effectively solve the above problem.

The navigation system for the blind is composed by the navigator terminal, wireless support center and monitoring center. The navigator terminal is installed with GPS receiving, GPRS/GSM data transmission, communications, electronic compass, etc. When a blind person passes an intersection, his location and orientation can be determined; the wireless support center provides the status of traffic lights and makes a reservation for the blind. When the blind is lost, longitude and latitude information can be received through GPS, at the same time sent to the monitoring center or family member for help. After receiving and processing the location information for the blind, the monitoring center passes back the navigation information, and undertake artificial voice navigation if necessary.
However, with the further development of single-chip and wireless communication technology, as well as the rise of micro control appliance with the single chip processor as the core, the application field is extended in the data transmission and control for the blind navigation system. The intelligent navigation system for the blind is proposed as a more perfect and intelligent guide system, using modern technology such as ultrasonic ranging, infrared temperature measurement and GPS positioning.

3. Ultrasonic Module

The ultrasonic module in the system that helps to obtain distance information of obstacles, make voice prompt in a certain range and programmable gain, acquire the information of ultrasonic echo intensity with digital potentiometer, adjust the audio frequency modulation and provide more abundant information for the blind. The infrared sensor makes it possible to measure the temperature for people and objects ahead, eliminate the interference of people as obstacles. The ultrasonic and infrared systems are combined together through software programming to realize the guide function more accurately. Moreover, the GPS positioning function combines with GPRS information sending, which can accurately send the location information to the family on time? In emergency cases, one key function for help can be realized by a set button, and information will be automatically sent to the phones of their family members by pressing the button, which solves the problem of blind people in their inconvenience of using phones, and save the rescue time. The hardware compositions and each module function of the system are:

3.1 Ultrasonic module function

If a blind person encounter an obstacles appear before the user, the ultrasonic module will range the obstacles and transfer the measured data back to the single-chip microcomputer, which makes processing and judgement whether voice prompt is necessary.

3.2 Infrared module function

When someone passes ahead of the user, the infrared module will monitor the temperature of the objects and feedback the data to the microcontroller. If the processed data are within the temperature range of people, no voice prompt is made. This system adopts the infrared sensor signal processor, the infrared energy focuses on the photoelectric detector and converts into corresponding electrical signal, which is changed to the temperature of the measured target after amplifier and signal processing circuit, and revised according to the instrument treatment algorithm.

This system adopts single-chip C-language programming, the subroutine of which is controlled through the main chip, and subprograms include: ultrasonic ranging subroutine, infrared sensing subroutine, GPRS subroutine, GPS positioning subroutine. The next action will be judged after the main program has processed the data sent by the subroutine, such as the positioning function of GPS positioning subroutine. When users want to tell their locations to the family, they just press a button, the GPS positioning system program starts working. After a series of algorithms, the position of the user will be sent to the family through GPRS module.

3.3 Principle of infrared module

The infrared thermometer is composed by optical system, photoelectric detector, signal amplifier, signal processing and display output. The optical system converges target infrared radiation energy within its field of view, which is affected by the thermometer optical components and their location. The infrared can not only capture the surface temperature of the human body, but also add objects with small temperature range, so that the single-chip can identify more obstacles and help blind people to judge.

For examples, the principle of bionics according to bat echolocation occurs when echo sound wave encounters an obstacle; it will bounce back with the sound. This reflected sound is called echo. In the empty place outdoor, echoes are vague, because sound vibrations move in all directions and energy will be lost. While in a confined space, the reflection of the voice will not run away, so the echo is quite loud. According to this principle, we design a new kind of ultrasonic navigation for the blind, which specifically includes a sound receiver and an acoustical generator. The blind makes a sound while they are moving, when meeting with obstacles, these data will come to the receiver, which explore the distance, size and direction of the obstacles in front of the blind using the principle of wave propagation in a reflection phenomenon. After receiving sound waves, the converter will quickly transfer all kinds of information like the approximate distance, location and size of obstacles into sound. The blind people are able to sense the the location and size of the barrier according to the binaural sound frequency and the time difference and the size of the echo intensity, and then set up obstacles image in the brain.

4. Conclusion

In this paper, the proposed intelligent navigation system for the blind has obvious superiority and practicability. As it has been applied for patent technology in China and relevant technology belongs
to the object of patent protection, the content is not listed in detail.
Identification of Child Rearing Practices of Nomadic Mothers Residing in Urban Areas of Lahore City

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Abstract

Good child rearing practices always transform children into enlightened persons who are equipped with higher level of mental, physical, social, and intellectual faculties which lead their way to build a healthy and productive society. The present study was conducted to identify child rearing practices adopted by nomadic mothers living in urban areas of Lahore city. The population of study consisted of all nomads of Mustafa Town, Sabzazar Scheme, and Thokar Niaz Baig Lahore, Pakistan. The sample of study comprised fifteen nomads, five from each of three locations. A semi-structured interview schedule, with open ended questions about fifteen types of standardized child rearing practices including Feeding, Weaning, Resting, Elimination (cleaning), Eating, Toilet training, Playing, Safety, School education, Dressing, Copying, Reading, Writing, Teaching and Self confidence, was used as an instrument for data collection. All responses were recorded on audio-tape. Collected data was analyzed through NVIVO program. Major findings were reported. Conclusions were drawn and recommendations were made.

1. Introduction

Child rearing practices are the bringing up of children and their training by parents or parents’ alternative. In different societies and different ethnic groups people use different child rearing practices. These practices also depend on their socio economic status, the values and the life styles of families in various subcultures. Obviously these practices are also strongly influenced by the standards of desirable values of the parents. The stability and peace of society influence the child rearing practices strongly. These practices comprise of all the activities regarding looking after children until they can look after themselves [1].

Child care till early childhood (0- 8years) includes, feeding, weaning, resting, elimination (cleaning), eating, toilet training, playing, safety, school education, dressing, copying, reading, writing, teaching, self-confidence. In order to accomplish the overwhelming task of rearing their children, parents generally rely on their own socialization into parenting, their instinctive sense of right and wrong, and their cultural beliefs. Influence of culture may focus on a combination of the following: race, ethnicity, social class, religion, region, gender, or poverty [2].

Child rearing practices from 0-2 years include activities that parents perform for their babies i.e. feeding; weaning; resting; and elimination (cleaning). A baby needs only breast milk for at least the first four months of life [3]. Most new-born babies feed every two to four hours. Generally solid foods are begun after six months of age. Practically, everything that the infant needs may be summed up in the one word nutrition. A sufficient supply of pure milk from the mother is the best nutrition and the a supreme requirement of babies [1], [4].

A baby needs at least eight hours of sleep per day. Usually a new born may sleep sixteen hours a day (or even more), often in intervals of 3 to 4 hours at a time. As babies grow up, their periods of waking increase [5]. Many pediatricians recommend that parents should not let a new-born sleep too long without feeding. Parents should always keep sleep safety in mind. In the age of two months, usually babies sleep for 6 to 8 hours in the night. Parents may want to talk with the doctor if their baby seems overly irritable and cannot be adequately soothed [6].

The major child needs, in the age of 3-5 year are: eating; toilet training; playing; safety and school education. In the age of three a children start feeding completely and enjoy mealtimes. In this age parents can help the child by providing them with cereals and sandwiches. Instead of fast food, they should be served simply prepared foods. Parents should teach them about food and eating habits [1]. Fruits must be given once a day and yellow or dark green vegetable should be served at least 3 to 4 times a week. In order to continue good dental care, child’s teeth should be brushed twice a day [7]. Parents should provide complete toilet training to the children about...
hand washing. Proper place should be in use. Parents should check whether their child washed his hands with soap or not [8].

In this age child can ride a tricycle or some sort of vehicle with pedals. Parents should provide opportunities for child to climb, run, and crawl, using all his large muscle groups. Some musical toys are very attractive for children and provide an excellent way to release their energy and encourage creativity among them [9].

A child needs to know his/her and parent’s full names, address, and phone numbers. Parents should teach the child never to get into a strange car. Parents must balance opportunities for healthy interaction with the need for protection especially with pre-schoolers. Children need to know a comprehensive vocabulary. Parents must educate their children about preventing accidents, especially outside the home [10]. A child may start going kindergarten in these years. A child needs to know that s/he still have some special time with parents. It will help him to enjoy his entry into the formal education system [11].

Child needs help to learn reading. Parents must make books available to the child and send them to the library periodically. Parents must provide the child opportunities for change and to print own name and short names of favourite people and objects. Most children learn to read and write, although some don’t until after age seven. Parents should promote child’s reading and writing (e.g., letters to relations and friends, opportunity to create stories [12].

A child needs to teach to think about death, dying, killing, violence. Parents must teach the child to where he has to express his feelings and where not. Parents should use fairy tales to provide examples to develop awareness about good or bad deeds. Children also try to be perfect and need reminding that no one is perfect or should be perfect. A seven years old child argue with parents in a sense asking “why”, over and over, more almost as a stalling technique for whatever parents asked them to do. Do not over talk to them. At the age of seven children get conscious about their demands and reaching the age of eight they begin to think about their perceptions. In this age child should be guided about religious or spiritual aspects of life, even if there is no specific religious or spiritual learning in household [13].

Nomads are persons without a fixed place of usual residence who move from one site to another. Nomads don’t stay at one place, taking sheep, cattle and asses with them they keep on moving from one place to other. Main categories of nomads are hunter gatherer nomads, pastoral nomads, Romu nomads. Pastoral nomads are further classified into four classes: Pastoral nomads; nomads rendering special services; trading nomads; miscellaneous nomads [14]. The purpose of this study was to explore and describe child rearing practices of nomads residing in urban areas. This survey research will be significant for providing information about families of nomads and helping them to improve their child rearing practices.

2. Objectives of the Study

The study was conducted to achieve the following objectives:

- To explore the awareness of nomadic mothers about child rearing practices
- To identify child rearing practices of nomads residing in urban areas
- To investigate the problems of nomadic mothers regarding child rearing practices
- To identify the cultural patterns of nomads for fulfilling their children’s needs.

3. Methodology

Qualitative research approach was employed in this study. The study was ethnographic in nature.

3.1. Population

The population of study consisted of all nomads from Mustafa Town, Sabzazar Scheme, Thokar Niaz Baig, Lahore. The study was delimited to the mothers of young children from 0-8 years.

3.2. Sample

Sample of the study consisted of 5 female nomads from each place: Mustafa Town; Sabzazar Scheme and Thokar Niaz Baig, Lahore. The subjects were selected by using convenient sampling technique.

3.3. Instrument

A semi-structured interview schedule, which was validated by experts in the field of education, was used to gain insight into the child rearing practices of nomads residing in urban areas. The interview schedule consisted of fifteen child rearing practices containing one hundred (100) statements.

3.4. Data Collection and Data Analysis

Researchers visited residing areas of nomads of Mustafa Town, Sabzazar Scheme and Thokar Niaz Baig, Lahore. After getting the consent of nomadic mothers, they were assured of keeping their identity confidential. Semi structured interview schedule was employed and the responses of each statement were recorded on audio tapes carefully. Themes were
identified and results were converted into percentages.

4. Results

The information collected through a semi-structured interview schedule is being presented after analysis. The results have been presented in percentages. The interview schedule consisted of fifteen parts including statements about, feeding, weaning, resting, eliminating (cleaning), eating, toilet training, playing, safety, school education, dressing, copying, reading, writing, teaching, self-confidence.

Table 1. Child rearing practices

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The results of the study are being presented below.

4.1. Responses of the nomadic mothers about child rearing practices regarding mother feed

53% (8) nomadic mothers thought milk as the first diet for the child so, the ratio of rendering this standardized child rearing practice was high. 10% (1) nomadic mothers thought breast milk for the child as a better diet. 20% (3) women give cow milk in addition to mother milk which is a standardized child rearing practice. Majority of the mothers answered that milk was given to the child when he demanded. 100% women answered that breast milk was better for the child than cow milk which is a standardized child rearing practice. Majority of the mothers thought that milk of some other woman was not better for the child. Only 53% (8) mothers thought that milk was given to the child till age 2 and 47% (7) mothers answered that milk was given to the child after two years, so, the ratio of rendering this standardized child rearing practice was high. 27% (4) women used bottle for feeding cow milk. The ratio of rendering this standardized child rearing practice was low. 73% (11) women used other open pots for feeding milk. The ratio of rendering this standardized child rearing practice was high. 13% (2) women washed bottle before use. The ratio of rendering this standardized child rearing practice was low. 100% women thought that cow milk should be boiled before use which is a standardized child rearing practice.

4.2. Responses of nomadic mothers about child rearing practices regarding weaning need

87% (13) women thought that child should eat other things in addition to mother's milk. The ratio of rendering this standardized child rearing practice is high. Majority of women thought that child should be given some other things in addition to mother's milk. But child's liking or disliking was not taken into consideration. So, the ratio of rendering this standardized child rearing practice was low. Majority of women thought that food with milk was good for child's health which is a standardized child rearing practice.

4.3. Responses of nomadic mothers about child rearing practices regarding resting need

93% (14) women took care of child's sleep so, the ratio of rendering this standardized child rearing practice was high. 87% (13) women took care of child's resting place so, the ratio of rendering this standardized child rearing practice was high. 93% (14) women took care of the complete rest of the child. 67% (10) women took care of temperature while resting so, the ratio of rendering this standardized child rearing practice was high. No mother took care of the child in case he did sleep more than routine time which is not a standardized child rearing practice.

4.4. Responses of nomadic mothers about child rearing practices regarding elimination (cleaning)

7% (1) nomadic mothers made their child's atmosphere clean so, the ratio of rendering this standardized child rearing practice was low. Only 7% (1) nomadic mothers use diapers so, the ratio of rendering this standardized child rearing practice was low and 100% women used nappy cloth which is not
a standardized practice. 87% (13) women or nomadic mothers changed diaper or cloth nappy after some time and washed cloth nappy with soap so, the ratio of rendering this standardized child rearing practice was high. 100% (15) women bathed child after twenty four hours with soap which is a standardized child rearing practice. No nomadic mother used proper place for bathing a child which is not a standardized child rearing practice. 93% nomadic mothers used to give improper medication to child in case of rashes which is not a standardized child rearing practice.

4.5. Responses of nomadic mothers about child rearing practices regarding eating

80% (12) nomadic mothers used to give two times meal to the child. 87% (13) nomadic mothers gave Rusk in breakfast and bread in lunch and nothing was given in dinner. Moreover, no care was taken if child did not take meal. 80% (12) nomadic mothers used vegetables, meat and pulses for the child in food which can be taken as a standardized child rearing practice. Only 60% (9) women did clean the teeth of their children with (Missi) that was made by them and 40% (6) women did not take care of it so, the ratio of rendering this standardized child rearing practice was high.

4.6. Responses of nomadic mothers about child rearing practices regarding toilet training

53% (8) nomadic mothers gave toilet training to the children. 27% (4) women used strict behavior if child didn’t tell before passing stool, so, the ratio of rendering this standardized child rearing practice is low. 100% (15) nomadic mothers gave hand washing training to their children after passing stool and personally checked washed hands of children which is a standardized practice. Only 60% women did care if child did go to washroom again and again and gave him proper medication and 40% (6) women didn’t bothered about it so, the ratio of rendering this standardized child rearing practice was high. Majority of nomadic mothers used liquids in limited quantity during winter which is a standardized child rearing practice.

4.7. Responses of nomadic mothers about child rearing practices regarding playing

66% (10) nomadic mothers provided opportunity to children for playing. 33% (5)nomadic mothers provided no facilities for playing so, the ratio of rendering this standardized child rearing practice is high and 80% (12) mothers didn’t know playing being good for health or not. Only 53% (8) nomadic mothers set time for the child to play so, the ratio of rendering this standardized child rearing practice is low. 60% (9) women provided some ordinary toys to children for playing so, the ratio of rendering this standardized child rearing practice is high.

4.8. Responses of nomadic mothers about child rearing practices regarding safety

40% (6) nomadic mothers thought that children should visit different places, so, the ratio of rendering this standardized child rearing practice is low. 7% (1) nomadic mothers teach their children their full name, address and phone number at the age of four years so, the ratio of rendering this standardized child rearing practice is low. 100% (15) nomadic mothers taught children to keep away from knives, medicines and harmful things. 100% (15) nomadic mothers taught children to be cautious of deep water and busy roads which are standardized child rearing practices.

4.9. Responses of nomadic mothers about child rearing practices regarding school education

33% (5) nomadic mothers used to teach their children before going to school so, the ratio of rendering this standardized child rearing practice is low. 96% (14) women sent their children to school at the age of four years so, the ratio of rendering this standardized child rearing practice is low. 73% (11) women gave lunch to the child for break in school and bread is given with improper spread, so, the ratio of rendering this standardized child rearing practice is low but lunch is not standardized. 47% (7) women did not care to control child’s anger. 54% (8) women gave answers to the questions asked by children and 47% (7) nomadic mothers kept in touch with school so, the ratio of rendering this standardized child rearing practice is low. No nomadic mother had knowledge about different needs of every child. If child was not going to school then 100% (15) nomadic mothers gave him education which is a standardized practice. 100% (15) nomadic mothers were of the view that all children should be sent to school which is a standardized child rearing practice and no mother knew that children should be treated equally or not, which is not a standardized child rearing practice. 87% (13) mothers thought education being important and beneficial to children and 15% (2) mothers opined that child should be permitted if he wanted to study more, so, the ratio of rendering this standardized child rearing practice is high.
4.10. Responses of nomadic mothers about child rearing practices regarding dressing

100% (15) nomadic mothers used full dress for their children and 82% (12) nomadic mothers dressed the child up according to temperature and thought that child should be told about importance of dressing so, the ratio of rendering this standardized child rearing practice is high. No nomadic mother took care of their children's liking or disliking and color selection which is not a standardized child rearing practice.

4.11. Responses of nomadic mothers about child rearing practices regarding copying

100% (15) nomadic mothers allow children to copy themselves and provided examples to children for copying which are standardized child rearing practices.

4.12. Responses of nomadic mothers about child rearing practices regarding reading

67% (10) nomadic mothers provided facilities of reading to the child so, the ratio of rendering this standardized child rearing practice was high and 47% (7) mothers used to send children on tuition, so, the ratio of rendering this standardized child rearing practice was low.

4.13. Responses of nomadic mothers about child rearing practices regarding writing

33% (5) nomadic mothers paid attention to teaching writing to their children so, the ratio of rendering this standardized child rearing practice was low and only 53% (8) children were sent to tuition and their home work and school work were checked so, the ratio of rendering this standardized child rearing practice was high.

4.14. Responses of nomadic mothers about child rearing practices regarding self-confidence

Nomadic mothers did not appreciate their children when they performed well which is not a standardized child rearing practice. 100% (15) nomadic mothers’ provided guidance and limits to the child, which is a standardized child rearing practice.

5. Discussion

Child rearing practices of nomads residing in urban areas (Mustafa Town, Sabzazar Scheme, Thokar NiazBaig) of Lahore were examined. Most of their child rearing practices regarding feeding were standardized. Most of nomadic mothers preferred mothers’ milk to cow milk. Most of nomads had high ratio of standardized child rearing practices regarding weaning. They used rice, rusk, fruit pulps, sweets and snacks for weaning with milk.

Most of nomads had moderate ratio of standardized child rearing practices regarding resting. Most of nomadic mothers had high ratio of standardized child rearing practices regarding elimination (cleaning). Most of nomads had low ratio of standardized child rearing practices regarding eating. Most of nomads had high ratio of standardized child rearing practices regarding toilet training. Most of nomads had moderate ratio of standardized child rearing practices regarding playing. Most of nomads had high ratio of standardized child rearing practices regarding safety.

Most of nomads had low ratio of standardized child rearing practices regarding school education. Most of nomads had moderate ratio of standardized child rearing practices regarding dressing. Most of nomadic mothers had high ratio of standardized child rearing practices regarding copying. Most of nomads had low ratio of standardized child rearing practices regarding reading and writing. Most of nomads have moderate ratio of standardized child rearing practices regarding teaching and self-confidence.

6. Recommendations

On the basis of major findings the following recommendations are made for Government of Pakistan and researchers:

1. Government should provide proper facilities (food, clothing and houses to nomads residing in urban areas.
2. Government should establish resource centers of nomads residing in urban areas for networking and exchange of information.
3. Government should provide entirely free and compulsory education to all children of nomads residing in urban areas.
4. Government should open health centers near the residing areas of nomads.
5. Government should establish a committee for making plans to improve child rearing practices of nomads.

6. References


Sensitising South African Universities on Special Needs Education: The Case of Sign Language Interpreters

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Abstract

The story begins with South African Sign Language (SASL), the name used for sign language in South Africa. It is the first language of all Deaf people in the Republic of South Africa. Million more people who are not Deaf, for instance, employers of Deaf people, relatives or friends and interpreters use SASL. This paper charts the challenges facing South African universities on special needs. The focus is on sensitising them on the integration of SASL in their interpreting modules. A case study method was used in this study and it is found that fully trained SASL interpreters are viewed as the most crucial human resource in the country and they are needed to intervene on the communication between Deaf people and the society at large in South Africa.

1. Introduction

My paper is aiming at sensitising South African universities on special needs education with respect to sign language interpreters. South Africa, which is an African country, is ready to recognise SASL as a language used for official purposes. In this context I shall analyse how the involvement of SASL interpreters in the complex South African academic field is becoming a growing concern for the South African ethics of sign language interpreting; providing in the platform of this World Congress on Special Needs Education (WCSNE - 2014) the elements for debate on the urgent issue of special needs such as sign language interpreting and activism among scholars, trainers, practitioners and civil society actors in South Africa.

The South African official languages are Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho, Setswana, siSwati, Tshivenda and Xitsonga. “South African sign language covers all of the country’s 11 official languages [1]”. A Pan South African Language Board established by national legislation is mandated to promote, and create conditions for, the development and use of sign language [1]. The paper comprises the abstract and this introduction, case study and conclusion. The next aspect is a case study on South African Sign language interpreters.

2. Case study: SASL interpreters

The case study covers five aspects – the problem, steps undertaken to sensitise SA, results, challenges, beyond the results and lesson learned.

2.1. The problem

SASL interpreting quality was compromised in a high profile event where “in 2013, an individual without credentials, training or competence was hired to interpret the funeral of Nelson Mandela [2]”. As outlined in Figure 1, “the man standing behind Barak
Obama and making gestures was not a sign language interpreter, but a fraud [3].

Figure 1: The gesture was not a sign language, but a fraud

“With the eyes of the world watching the FNB stadium in Johannesburg, the interpreter was ‘moving his hands around, but there was no meaning in what he used his hands for [4].’ The man was pretending to be a sign language interpreter. The world is ‘outraged that an unaccredited ‘interpreter’ was used and want to be clear that unaccredited interpreting damages communication for both hearing and Deaf people [5].’ This situation highlights the need for public education about Deaf people and the interpreting profession in South Africa. The skills training of sign language interpreter remains a missing link between the Deaf people and all types of events, including high profile events in South Africa.

2.2. Steps undertaken to sensitise South African universities

Providing comprehensive advice on SASL interpreter skills training is an important part of improving the South African universities’ contributions to Special Needs Education (SNE). The first step was sensitising the South African universities and academics on SNE. It involved supplying information on the concept ‘special needs education to South African universities and academics to build an evidence-based argument to convince the country’s universities and academics that Deaf people in South Africa are in need of interpretation services.

The third step was the review of the status of South African Sign Language (SASL). This involved supplying information on SASL’s legal and educational status in the country to South African universities and academics to build an evidence-based argument to convince the country’s universities and academics that Deaf people in South Africa are in need of interpretation services.

The fourth step was the analysis of the first part of the higher education’s three-fold mandate. It involved supplying information to South African universities and academics to build an evidence-based argument to convince the country’s universities and academics that SASL interpreter skills training is an aspect of the first part of the higher education three-fold mandate; and this is also crucial to the South African universities’ contributions to the promotion and development of SNE.

The fifth step is to investigate the number of South African universities offering SASL interpreter skills training. It involved supplying information on the status of SASL interpreter skills training to the South African universities and academics to build an evidence-based argument to convince the country’s universities and academics that the SASL interpreter skills training is less considered by the country’s higher education institutions.

The last step was integrating the results from the first five steps. It involved supplying information on the link of the higher education mandate and the SASL skills training for interpreters, and success or failure of the country’s universities to contribute on the SNE to build an evidence-based argument to convince them that the offerings of SASL skills training are fit in first part of the higher education three-fold mandate.

2.3 Results

2.3.1 Deafness and special needs education

To begin understanding deafness and special needs education (SNE), in the context of this study, it is necessary to have an understanding of special needs (SN) and language. SN has tended to be used as a general cross-sector term. Like the term ‘disability’, SN applies across different areas of life activities; but it has also been “used to refer to needs beyond learning difficulties and disabilities, e.g. English as additional language needs [6].” In Scotland, for example, prior to 1980, “individual assessments were geared to the identification of the following nine legal categories of handicap: deafness, partial deafness,
Deafness and partial deafness relate to hearing loss, and also to speech defects. Hence, the concept ‘hearing impairment’ is mainly used because it covers almost all aspects relating to hearing loss. For instance, Bridget Shield maintains that it is important when discussing issues relating to hearing loss “to appreciate that many terms relating to hearing impairment, for example 'deaf', 'deafened', 'hard of hearing', 'hearing impaired', 'hearing disabled' and so on, are used in the literature. These terms can be used to refer to different conditions in different contexts and in different cultures [8].” In fact hearing impairments are commonly used and “vary greatly from mild hearing loss to profound deafness [9].” In the words of Bridget Shield, “there is considerable variation in both qualitative and quantitative descriptions of deafness [8].” Leeanne Seaver and Janet DesGeorges refer to “students who are deaf or hard of hearing [10].” The term Hard of Hearing (HOH) means “having some degree of hearing loss ranging from mild to profound [11].” It “describes those who have mild to moderate hearing loss. Mild hearing loss includes those who are able to hear everything except very high pitched sounds [9]. In medical terms the term Hard of Hearing refers to people who have a significant loss of hearing but still have some residual hearing [12].” In contrast, Deaf means “having hearing loss of such severity that communication and learning is primarily by virtual methods (i.e., manual communication, writing, speech reading, and gestures) [11].” It “includes people with severe to profound hearing loss, who are unable to hear anything but the loudest sounds, such as a jet airplane [9].” In medical terms, Deaf refers to “people who cannot hear enough to understand speech [12].”

“Language, any language, has a dual character: it is both a means of communication and a carrier of culture [13].” Communication is “the transmission of something from one location to another. The thing that is transmitted may be a message, a signal, a meaning…in order to have communication, both the transmitter and the receiver must share a common code, so that the meaning or information contained in the message may be interpreted without error [14].” Therefore, communication is the process of sharing ideas and information. It is a process that is essential, and many say innate, for all human beings [15]. Culture refers to “the system of information that codes the manner in which the people in an organized group, society or nation interact with their social and physical environment [14].” “Deaf culture is one of the strongest cultures of any disability group…The culture has its own language [12].” However, “the hearing public generally views deafness as a disability and has little information about deaf culture [16].” Therefore, in the disability community, “the term Deaf usually means people who consider themselves part of the Deaf community. Members of this community…have a great deal of pride in their culture [12]”. R. Hofmeister says they “consider themselves neither isolated nor disabled, but rather a cultural and linguistic minority [16].” Moreover, a deaf person “has to anticipate difficult communication situations, for example social gatherings, group conversation, interactions with salespersons, in banks, or with medical personnel [8].” Therefore, deaf people also face challenges maintaining social relationships with people who hear [12]. However, “there have been a variety of points of view about how individuals who are deaf should learn to communicate. Debate about whether to use natural sign language, speech, signs in English word order, created sign systems, or how to integrate speech, speech reading and auditory training with sign has been consistent and ongoing [15].” This brings the argument to SNE and sign language interpreter.

SNE is specifically an educational term “that relates directly to teaching and learning. It is a system for providing a conducive learning environment for learners who may require extra support in order to achieve their potential [17].” It is therefore, an education for learners with learning difficulties, who are blind and visually impaired, deaf and hearing impaired, physically disabled, or behaviourally and emotionally disturbed, and for learners with complex disabilities [18]. Consequently, for hundreds of years, “people have debated the best ways to provide communication skills and education for deaf and hard-of-hearing children [19].”

“While the questions of how to promote the communication skills of individuals who are deaf and how deafness is viewed may be considered as the most controversial subjects in the field, there are a variety of other issues that have consumed the attention of education professionals and families [15].” For instance, Pamela Buhere and Pamela Ochieng confess that “globally, education systems were constructed to include some children and not others…this differentiation meant that some children because of individual deficits could not cope within the ordinary educational system [20].” Brother Andrew L. De Carpentier argues that there are increasing demands on the welfare and education services to meet the needs of deaf people; and “that the interest of the developed countries, including the professionals directly involved with the education of
deaf people, is often quite superficial. The aid programmes are inadequate and are often inefficiently administered and inappropriately targeted [21].” It emerged in a number of national contexts, but “France was the crucible where innovative pedagogies to assist those deaf, blind, and intellectually disabled emerged and flourished [22].”  “Today, there is a growing recognition that the field of special education must change in response to 21st – Century concerns about what it means to provide an education for students who have been identified as having special educational and disabilities [23].”

From the above explanations “it is clear that the field of education of students who are deaf or hard of hearing has a long history filled with diverse viewpoints and many unanswered questions [15].” Research suggests that learners with special needs be included in mainstream institutions “if there were greater investment in the development of their language skills and a higher level of sensitivity to cultural differences [24].” Therefore, Deaf education “promotes equal opportunities for deaf people in the hearing world, but recognises the distinct qualities of local deaf communities as (language) minorities with their own (Deaf) culture [21].” The research also confirms that “teacher education is clearly of vital importance in moving towards more inclusive systems [24].”

In the context of this study, “student with special educational needs and the mainstream student both need to learn about alternative means of communication, such as Sign Language, the Bliss Symbol System etc [25]”. In addition, “those involved in special education, either in mainstream or in special schools, need a common vocabulary with which to describe the educational experiences of students and to facilitate communication between parents, teachers, and other professionals [26].”

2.3.2 The sign language interpreter

People with hearing impairments are generally dependent on visual cues for communication; those who are of hard-of-hearing or who are educated on the ‘oral’ method may request an oral interpreter; and those who are deaf may communicate with sign language [12].

The focus in this subsection is on sign language interpreter. “When most people hear the word interpreter they think of someone who translates the meaning of one language into another [27].” Minnesota Department of Human Services Online clarifies that “a sign language interpreter facilitates communication between people who are deaf and hearing by signing what is said and speaking what is signed. An oral interpreter provides a similar service but uses oral communication (speech reading) instead of sign language [11].” Oral interpretation is “an art that involves inaudibly mouthing the words as they are presented by a speaker. Oral interpreters are able to communicate the visibly indistinguishable sounds previously mentioned [12].” In contrast “a sign language interpreter is someone who can interpret in sign language effectively, accurately and impartially, both receptively and expressively, using any necessary vocabulary [28].”

2.3.3 The status of South African Sign Language

“The number of Deaf people who accept South African Sign Language (SASL) as their first language is estimated at 500 000. Because of a lack of awareness in the South African society, Deaf people experience language barriers in public sectors. This means that there is a great need for professionals in different fields to learn SASL in order to provide efficient access to service. Also, this will help Deaf people to contribute equally to the South African economy [29].” The South African Deaf community who has been marginalised for so many decades is now “theoretically in a position to reach a more complete state of self actualization. The reality means that without the official recognition of the natural language of this community i.e. South African Sign Language/s, in particular to: identify need to learn SASL in order to provide efficient access to service. Also, this will help Deaf people to contribute equally to the South African economy [29].” Therefore, “fully trained SASL interpreters are viewed as the most crucial ‘human resource’ needed by Deaf people in South Africa [30].” “Learning to sign takes one from pathology to membership in a community with a rich culture that is passed on from generation to generation [32].” In those countries where sign language receives official recognition/status, “registries of interpreters exist, many of whom specialize in certain fields of interpreting, i.e. educational interpreters, legal/court interpreters, medical interpreters, conference interpreters etc [30].” Section 10 of the guiding principles of an amended version of the South African languages Act proposed by Pan South African Language Board (PanSALB) as in Section 3(b) is that “the use of all indigenous languages and South African Sign Language/s must be promoted [31].” Therefore, “the amended version of the South African languages Act proposed by PanSALB indicates that the Minister shall take practical and positive measures for the development of the indigenous languages and South African Sign Language/s, in particular to: identify priority areas for the development of these languages; support existing structures involved in the
development of these languages; establish new structures and programmes for the development of these languages, and support cross-border projects for the development of these languages in the Southern African region [31]. Therefore, SASL is a real language, which should be equal in status to all other languages. Therefore, Deaf people can sign any topic, concrete or abstract. They do not live apart from hearing people, and they need to communicate with hearing people in order to function socially and economically. This brings the argument into the first part of the higher education three-fold mandate.

2.3.4 The first part of the higher education three-fold mandate

“Human Services is one of the most common domains in which interpretation takes place. Interpreters and human service professionals must work closely together to ensure equal access to an array of public services in a wide variety of settings [33].” In America, for example, there are institutions with certificates, programs or degrees on sign language studies and/ sign language interpreters. For instance, American River College Catalogue covers degrees in Sign Language Studies: Business, Human Services and Interpreter Preparation Program; and certificates in Sign Language Studies: Business,: Human Services and Interpreter Preparation Program. These qualifications are offered in the first part of the three-fold mandate in higher education: human resource development or the mobilisation of human talent and potential through lifelong learning to contribute to the social, economic, cultural and intellectual life of a rapidly changing society.

In considerations of human resources facilitating the use of SASL, the study found out that they are not adequately found in South Africa. However, one of the goals and strategic objectives of the transformation of the higher education system in South Africa is “to provide access to higher education to all irrespective of race, gender, age, creed, class or disability and to produce graduates with the skills and competencies necessary to meet the human resource needs of the country [34]”. The human resource development has been identified as the first part of the higher education three-fold mandate and it is a crucial level in which the sign language interpreters should be developed. South African higher education institutions that work with Sign Language Interpreters in Human Service Settings should consider that sign language interpreters are in high demand. Therefore, “sign language interpretation is widely needed and used daily by many members of the Deaf community across a wide variety of educational, legal, medical, rehabilitation and vocational contexts [33].” Services of these professionals are lacking in the country due to lack of training.

2.3.5 SASL interpreters training in SA universities

South Africa had 23 universities. Two universities have emerged recently adding up to 25 universities. This study excluded the newly established universities. Figure 2 outlines the percentage of the universities teaching SASL versus universities that do not offer SASL.

![Figure 2: Percentage of SA universities offering and not offering SASL](image)

Only 4 or 17% of the 23 universities is offering SASL. The SASL Department in one of the four universities “produces students who are in a position to make a contribution to the development of our country in terms of the constitutional principles of social justice and equality for all. Being fluent in SASL affords students numerous employment opportunities in the fields of education, social services, health care and interpreting [29].”

2.3.6 Integration

I assessed the results on 2.3.1 to 2.3.5 to help the South African universities understand the need of sign language interpreters skills training. The assessment indicates that most universities in South
Africa do not consider to provide SASL interpreting courses – certificates, programs or degrees.

2.4. Challenges

SASL has as yet no official recognition or status in South Africa. This “has seriously impeded on the establishment and recognition of an official registry for SASL interpreters, whereby the profession can be regulated and quality controlled [30].” Although SASL represents a standardised sign language of South Africa, there are 12 identified Sign Language dialects in South Africa. Serious problems are said to be “experienced in courts, charge offices, and hospitals because of the absence of sign language interpreters, and when interpreters are available, the standard of interpreting is not acceptable [35].” Legal remains “a very serious challenge, as many Deaf people who enter court do not have access to adequately trained professional SASL interpreters [30].” The South African Translators Institute (SATI) is “currently the only organisation that has an interpreter accreditation system in place… There are currently less than 10 SASL interpreters accredited with SATI [36].” Accreditation remains valid only for as long as the candidate remains a member of SATI. Accredited SASL interpreters “must therefore renew their membership on an annual basis. Should they fail to pay their membership fees, their accreditation lapses and they have to re-apply to be accredited [37].” The major challenge is the failure of deaf education in the country, especially, at school level. For instance, Mirriam Nosiphiwo Ganiso depicted that the overwhelming majority of Deaf people in the country never make it to matric – and only a handful reach university; and that “DEAFSA revealed the following statistics: only 12 of the country’s 47 schools catering for the hearing-impaired offer matric; only 14% of teachers are fluent in sign language [35].” “There is currently no approved South African Sign Language curriculum for grades R-12 except pockets of similar curricula in provincial departments [38].”

Identifying demands that are facing sign language interpreters - the linguistic demand, environmental demand, interpersonal demand and intrapersonal demand; the importance of recognising the simultaneous contributions of the four demands to the overall degree of demand the interpreter experiences during a given assignment; the appreciating of the shift in demands that can occur between various interpreting assignments or even during the same assignment are other challenges on the establishment of training for sign language interpreters [39].

2.5. Beyond the results

An integrated approach to SASL interpreters training, which includes the commitment of the South African schools on teaching the Deaf and hearing learners the sign language up to matric; and the Department of Basic Education and Training to create an enabling learning environment for learners interested on SASL interpreting programmes to receive the SASL education in school levels will help them to progress into universities with fundamental knowledge and to adhere to ethics and professional practice of SASL. This will help them to learn the SASL interpreting at universities. The universities should also open doors for students who prefer to study SASL interpreting in their target language.

2.6. Lesson learned

The experience in this intervention showed that there is still a long way to go for SNE and SASL interpreting in the world in general and South Africa in particular. The existing education of the Deaf in the world and in South Africa aims simply to educate; to develop skills, knowledge and values as well as promoting equal opportunities for deaf people among hearing societies in the world. However, within the developing countries such as South Africa, “there are a number of misunderstandings and misconceptions relating to the current range of activity, the standards of provision and the availability of professional expertise in deaf education [21]. In many countries the distinct qualities of Deaf communities are recognized as language minorities with own Deaf cultures.

“There are different sign languages all over the world, just as there are different spoken languages [40].” SASL differs from sign languages of the other countries. “These languages are bona fide linguistic systems, with structures and rules and the full range of expressive power that characterise spoken languages [41].” In general, the people for whom SASL is a first language are those who are born deaf or become deaf at a very young age.

3. Conclusion

Professional SASL interpreters in the country are artificial. First, professional SASL interpreters are not an integral part of the public service. South African universities should consider that professional SASL interpreters should undergo vigorous standard training before they are accredited by a professional
board and abide by the professional code of conduct and ethics.

4. References


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Impact of Explicit Comprehension Strategy on Struggling Elementary Students’ Ability to Comprehend and Compose Argumentative Text
(Authors: Priti Haria, Alyson Koch, Jordan Conover)
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Abstract

The study investigated access of female students to secondary education and the completion rate of those that were enrolled in the Federal Capital Territory (FCT). It also determined the factors responsible for the attrition of female students with a view to promoting the education of the girl child in the FCT. Twenty two public secondary schools were randomly selected from three area councils of the FCT. Documentary information on enrolment and attrition of female students was obtained, and oral interviews were conducted with 44 school principals, 20 school counselors and 50 teachers. The results showed that 70 percent of the principals and teachers interviewed opined that poverty and culture of early marriage were the two major factors that were responsible for female students' attrition.

1. Introduction

Despite the Federal Government Universal Basic Education programme launched in 2004, the number of girls attending schools in some Northern States of Nigeria remains abysmally low due to age-long religious and cultural beliefs [1, 2, 3]. The 2005 National School Census (NSC) revealed that there are large geographical and gender disparities between southern and northern Nigeria partly due to underlying socio-cultural factors. Girls' Net Enrolment Ratios (NER) in some States in the South are as high as 70% while some in the North are as low as 10% [2, 1]. The underlying causes include the low value accorded by parents to girls' education, early marriages, poverty, the low quality learning environment and the low value accorded to girls' education, harmful practices, local beliefs and norms that impact negatively on girls' education. In fact, in some of the schools in the Federal Capital Territory (FCT), school enrolment for girls is generally lower than that of boys. It has also been discovered that more girls drop out from school due to poverty and the early marriage culture. This has resulted in an increase in illiteracy among women with concomitant negative effects on environment and their socio-economic status. One case is a village, Gamji, in Zamfara State, where in its history, no female pupil had gone beyond the fifth year in the elementary school before being withdrawn for marriage.

2. Rationale for the Study

In most parts of northern Nigeria, education is more of a privilege than a right especially for girls. If they are lucky enough to be enrolled, many are withdrawn prematurely because of the culture of early marriage. This and other socio-economic and cultural problems such as poverty and ignorance account for the imbalance in school enrolment and education with boys generally outnumbering girls. The United Nations [4] observed that:

"Generally, of the World's nearly one billion Illiterates, two thirds are women; of the 130 million children without access to primary education, more than 80 million are girls. On average by the age of 18 years girls have received 4.4 of years less education than boys. The low level of education blocks off opportunities for economic, social, cultural and political advancement, trapping millions of women in a cycle of poverty and ignorance."

Effort to stem this tide motivated this study. It is believed that when the appropriate environment is created for girl child education, the nation will benefit from it in the long run. If a boy is educated, only an individual benefits, but when a girl is educated a mother and a nation builder is in the offing.

3. Research Questions

Two research questions were raised in this study. What are the school enrolment and the completion rate of girls in Federal Capital Territory of Nigeria like?
What are the factors responsible for girl students’ low completion rate and how can these be forestalled?

4. Methodology

Subject: The Study was carried out in three local government areas of the Federal Capital Territory. The subjects used for the study were 44 school principals, 20 School counsellors and 50 class teachers drawn randomly from 22 secondary schools across the three area councils of FCT. Classified as principals in the study were 22 secondary schools principals and 22 vice-principals.

Design and data collection: Causal-comparative design was employed in the study. Information relating to pupils’ enrolment was collected from the selected schools. The researchers first went to the schools to inform the principals and the selected teachers of the intention of the researchers to carry out the study and to ask for their permission. Appointments were fixed with the principals on the days to visit their respective schools. A survey of the teachers’ opinion about the factors responsible for attrition among the pupils was also conducted. This was done through the use of unstructured interview which was meant to give the respondents enough latitude to fully and freely express their opinions. All the information was documented. On the strengths of the previous visits, the researchers were given the documents/information containing the data for the enrolment of female students covering three academic sessions (2006-2009) together with the number of drop-outs. The interview was conducted on the second visit. For data analysis, simple percentages were used to find the attrition rate of the female students in the selected secondary schools.

5. Results

Information in respect of students’ attrition rate in the three area councils was presented on Tables 1-3.

<table>
<thead>
<tr>
<th>Name of Schools (s)</th>
<th>No of girls admitted between 2006/2007 session</th>
<th>No of girls that graduated in 2008/2009 session</th>
<th>No of drop-out</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Junior Secondary School, Gwagwalada</td>
<td>390</td>
<td>325</td>
<td>65</td>
<td>16.6</td>
</tr>
<tr>
<td>2. Junior Secondary School, Sabongari</td>
<td>177</td>
<td>152</td>
<td>27</td>
<td>15.25</td>
</tr>
<tr>
<td>3. Government Secondary School Gwagwalada (Junior)</td>
<td>180</td>
<td>140</td>
<td>40</td>
<td>22.2</td>
</tr>
<tr>
<td>5. School for the Gifted Gwagwalada (Junior)</td>
<td>90</td>
<td>60</td>
<td>30</td>
<td>33.33</td>
</tr>
<tr>
<td>6. School for the Gifted Gwagwalada (Senior)</td>
<td>70</td>
<td>53</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td>7. Government Day Gwagwalada (Senior)</td>
<td>60</td>
<td>50</td>
<td>10</td>
<td>16.6</td>
</tr>
<tr>
<td>8. Government Day Gwagwalada (Junior)</td>
<td>190</td>
<td>140</td>
<td>50</td>
<td>26.32</td>
</tr>
<tr>
<td>9. Junior Secondary School Phase3, Gwagwalada(Junior)</td>
<td>220</td>
<td>180</td>
<td>40</td>
<td>18.18%</td>
</tr>
<tr>
<td>10. Junior Secondary School Phase3, Gwagwalada(Senior)</td>
<td>190</td>
<td>160</td>
<td>30</td>
<td>15.78</td>
</tr>
</tbody>
</table>
Table 2: Kwali Area Council

<table>
<thead>
<tr>
<th>Name of Schools (s)</th>
<th>No of girls admitted in 2006/2007</th>
<th>No of girls that graduated in 2008/2009</th>
<th>No of dropout</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Government Secondary School, Kwali (Junior)</td>
<td>480</td>
<td>437</td>
<td>57</td>
<td>11.87</td>
</tr>
<tr>
<td>2. Government Secondary School, Kwali (Senior)</td>
<td>430</td>
<td>330</td>
<td>100</td>
<td>23.25</td>
</tr>
<tr>
<td>3. Government Secondary School, Yangoji (Junior)</td>
<td>320</td>
<td>278</td>
<td>38</td>
<td>11.87</td>
</tr>
<tr>
<td>4. Government Secondary School, Yangoji (Senior)</td>
<td>300</td>
<td>250</td>
<td>50</td>
<td>16.66</td>
</tr>
<tr>
<td>5. Dafa Junior Secondary School, Kwali</td>
<td>181</td>
<td>120</td>
<td>61</td>
<td>33.70</td>
</tr>
<tr>
<td>6. Dafa Senior Secondary School, Kwali</td>
<td>170</td>
<td>120</td>
<td>50</td>
<td>29.41</td>
</tr>
</tbody>
</table>

Table 3: Kuje Area Council

<table>
<thead>
<tr>
<th>Name of Schools (s)</th>
<th>No of girls admitted in 2006/2007</th>
<th>No of girls that graduated in 2008/2009</th>
<th>No of dropout</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Government Secondary School, Kuje (Junior)</td>
<td>380</td>
<td>300</td>
<td>80</td>
<td>21.05%</td>
</tr>
<tr>
<td>2. Government Secondary School, Kuje (Senior)</td>
<td>350</td>
<td>280</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>3. Government Girls' Science School, Kuje (Junior)</td>
<td>300</td>
<td>240</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>4. Government Girls' Science School, Kuje (Senior)</td>
<td>320</td>
<td>260</td>
<td>60</td>
<td>18.75</td>
</tr>
<tr>
<td>5. Pasali Junior Secondary School, Kuje</td>
<td>280</td>
<td>200</td>
<td>80</td>
<td>28.57</td>
</tr>
<tr>
<td>6. Pasali Senior Secondary School, Kuje</td>
<td>270</td>
<td>220</td>
<td>50</td>
<td>18.52</td>
</tr>
</tbody>
</table>

The results from the selected three area councils in FCT indicated that there was attrition in almost all the schools but higher in rural schools than urban ones.

Information/Report from the oral interviews revealed that majority of the respondents agreed that poverty and early marriage culture were the two major factors that were responsible for the attrition. The factors are discussed fully in the following sections.

Poverty

Poverty was identified as one of the problems affecting girl-child education generally. According to FG/UNICEF [1], poverty prevents many families from enrolling some or all of their children in school or forces them to withdraw the children prematurely from school because of the cost of education. And when it becomes a matter of choice, the girl-child is the one not enrolled or withdrawn to make way for the boy child. This is because in Africa as a whole greater priority is given to the enrolment of boys than that of girls. This may be due to the importance attached to the male child as a future bread winner and head of the family in the society.

In Northern Nigeria where girl-child education has not been considered important due
to ignorance, poverty has even complicated the problem. Girl child education in such places is seen as a waste of time. Even where girl-child education is appreciated and valued, poverty has marginalized large families from educating the girl-child.

**Culture of Early Marriage**

Early marriage is a cultural aspect that affects girl-child education in FCT as identified in this paper. This is why the girl-child education is not appreciated. In Northern Nigeria, culture determines to a large extent the marriage age for girls. This has led to educational wastage in this region among girls, because many girls are withdrawn from school because of early marriage. Abok observed that [3].

Early or forced marriage is another method of alternating the girl-child in our society as an indirect result of total rejection based on preference of male child by giving her out in early marriage to friends, benefactors, visitors, strangers, or by pleading her to local heroes.

This practice is prevalent among the Hausas of Northern Nigeria and is a socio-cultural issue which is widely accepted. Not only are these girls withdrawn from school and married mostly by force at tender ages, they are also mostly married to older men of the parents' choice. Little consideration is given to the girls' physical, psychological and emotional preparations for such marriage. The consent of the girl is hardly sought in most cases, and they are not expected to see or like the suitors before they agree to marry them as long as the father approves of the man.

**6. Recommendations**

It is widely acknowledged that women are nation builders. They are "the hands that rock the cradle". Therefore, they need to be trained and prepared adequately for the future task through education. To solve this problem of attrition amongst female students in secondary schools in FCT, the following measures should be put in place:

**Action Aids** This is a policy of ensuring that in each community parents come together to form committees that oversee the enrolment of female children in their communities in their various schools. This should be encouraged and emphasized. Government should also have a policy that prohibit the withdrawal of female children from primary or secondary school. Any parent that withdraws his/her child from school with a view to giving her out in marriage is liable and should be sanctioned by the government.

**Awareness Campaign:** There should be awareness campaign on nation’s television, radio and prints on the importance of western education and the fact that it can provide girls with the knowledge and confidence needed to help reduce maternal and child mortality, violence and HIV/AIDS transmission. Furthermore, they should be made to know that good quality education is an enabling factor for countries to achieve the level of economic growth required to tackle poverty and make sustainable development a reality.

**Use of Social Workers:** Female social workers and health officers should be encouraged to establish a system of home visitation especially in the rural parts of the Federal Capital Territory. This would afford these women ample opportunity to learn all the facts on education, which are relevant to their being able to live a fulfilled life in a modern society.

**UNICEF:** UNICEF Nigeria and other development partners have been working with the Government of Nigeria to promote girls' education and various initiatives have been undertaken. These include the current Girls' Education Project (GEP) geared towards promoting and enhancing girls' participation in education. The GEP was inspired by an earlier initiative, the African Girls' Education Initiative (AGE) delivered through UNICEF and the government with the aim to boosting girls' education (Federal Republic of Nigeria, 2003, 2005 and UNICEF, 2007). This project should be brought to the grass root level so that girls in the rural areas will benefit. This will help in reducing the attrition rate as it was observed to be higher in schools in the rural areas.

**Special Funds for Girls’ Education:** There should be increased funding to support girls’ education, development of policies like the National Policy on Gender in Basic Education (FRN, 2004) focusing on mainstreaming gender in educational planning and implementation.

**Student Tutoring Mentoring and Counseling (STUMEC):** The Student Tutoring, Mentoring and counseling (STUMEC) programme is an initiative aimed at supporting children, especially girls, throughout their learning period to help improve learning achievement and retention in schools. The support is provided by peer tutors, teacher tutors, mentors and role models from the community. Dracher & Cov (1996), Herz, et-al (1991) and Packard (2003) were of the opinion that mentoring is specifically for children who are at risk of failing or dropping out, particularly girls, who are prone to vulnerabilities due to many factors, among them is the socio-cultural influences. This agency needs to be strengthened and utilized to check girls’ drop out.
Advocacy and Sensitization: Raising national awareness in girl-child education has increased political and financial commitment through advocacy and sensitization of policy makers at all levels, parents, school authorities, other leaders and girls themselves. High level advocacy to policy makers, traditional and religious leaders as well as continuous sensitization/mobilization of communities promote commitment to implementation, ownership and sustainability of girls' education interventions. The high level advocacy includes meetings with state governors and leaders in the society. Exploring and utilizing all these points will help to enhance girls' enrolment in schools which will in turn work positively for national development. An adage “train the girl child and build the nation” holds sway here.

7. Conclusion

The fact has been established in this paper that all children should have access to quality education within an equitable system. Schools should be places where children's rights especially those of girls are respected, injustices are challenged and lives transformed. By attending school, children can acquire the confidence and knowledge to better access and make use of information that can improve their lives. The dignity of self-confidence gained can help them to challenge discriminatory and biased gender roles and relations. Also, education can provide girls with the knowledge and confidence needed to help reduce maternal and child mortality, violence and HIV/AIDS transmission. Furthermore, good quality education is essential for enabling countries to achieve the level of economic growth required to tackle and make sustainable development a reality.

8. References


Using Simulation in Teaching Senior Secondary Two Students English Language Comprehension in Abia State, Nigeria

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Abstract

This paper sought to determine the difference in the mean scores of students taught English Language Comprehension using simulation and those taught using lecture methods. Three research questions were posed. A random sample of 60 students was drawn from a population of 222. English-Language-Achievement-Test (ELAT) which was validated and which yielded an index of 0.90 was the instrument used. Mean and standard deviation were employed for data analysis. The findings revealed significant difference in the mean scores of the two groups: N=31, X = 80.12, sd = 7.82 and N=29, X = 44.8, sd = 6.26. It also revealed that the females performed better than the males and that the externalized subjects performed better than the internalized subjects. The paper thus, recommended the employment of innovative instructional methods like simulation and others in teaching English Language comprehension. Equally, it avers that more conducive learning environment equipped with basic learning facilities should be put in place. Finally, the need for more regular capacity building workshops for teachers to acquaint them with appropriate methodologies and strategies for planning school curriculum with that of popular education was highlighted.

1. Introduction

Comprehension is the second level of cognitive attainment hierarchy as espoused by [1] Taxonomy of Educational Objectives. The first level is knowledge while the third, fourth, fifth and sixth levels are application, analysis, synthesis and evaluation, respectively. It is, therefore, very necessary that one is expected to comprehend (i.e understand) before one exhibits mastery of other levels especially when faced with the onerous tasks associated with school subjects.

Since English language still remains the language of the school curriculum and the Lingua Franca in Nigeria, conscious effort made in ensuring that all students demonstrate excellence cum expertise in the degree of comprehension in English language studies is worthwhile. It, (comprehension) arouses critical consciousness on intensive listening, reading, writing and interpreting. This is in tandem with the four literary skills of listening, speaking, reading and writing. It serves as a pre-requisite for intensive and extensive reading, in order for one to make applications and inferences. It also serves as the basis for critical analysis, prior to coordinated synthesis and appraisal, assessment or evaluation.

English language is, thus, very essential for the over all socio-economic and political development in Nigeria. It is indisputable that communication in English is used by almost half of the world’s population.

[2] refers to English language as the life blood of the education system in Nigeria. He opined that if students lacked linguistic cum comprehension skills and achieved poor results in English language, then, there would not be students capable of understanding university courses and as such, the whole future of the nation would be in dilemma. Based on the importance attached to English language in Nigeria educational system, the general public expects secondary school students especially at the senior secondary level to be proficient in listening, speaking, reading and writing English in the school and beyond.

Sequel to this expectation and other pedagogical factors, as it were, English language is taught in school everyday as a core subject using various teaching methods according to the degree of proficiency of the teacher. However, experiences and insights reveal that the subject needs to be taught in a more practical way, pertinent to the daily life and experiences of all learners. This leaves all teachers, stakeholders and curriculum planners postulating on how to teach English language so that students can use it practically in and out of school as well as perform creditably well in the subject during examinations.

One may, thus, begin to wonder on the appropriate didactic and innovative approach to use that will enable students to broaden their conception and become aware that English language is a dynamic instrument for solving real life problems. This demands the actualization of authentic learning skills where learners cultivate
fundamental in-depth comprehension of concepts rather than mere regurgitation of same. For authentic learning to take place, innovative and constructive teaching methods and strategies are required in order to motivate learners and sustain their interests throughout the lesson. The need to explore various instructional strategies, techniques and methods in teaching, therefore, becomes imperative if not mandatory.

It is against this background that this paper explores the efficacy of two teaching methods namely; simulation and lecture methods. The ability of male and female students to comprehend English language passages is experimented upon to primarily determine the difference in performance and effect of sex as a moderating variable in a class of two senior secondary school students in Nigeria.

It is pertinent to note that other scholars such as [3], [4] and [5] have variously conducted experiments on the differences that exist in the performance of males and females. Specifically, for instance, [6] found out there was significant difference thus “the mean X for males, (N=28) is 79.36 while the mean X for females (N=22) is 82.25”. This reveals that females performed better than males at the post test.

[7] explored the extent to which gender influenced students’ knowledge and attitude in sewage disposal and water treatment in environmental education in Home Economics. Males had mean score of 54.00 while females had 63.60. The study therefore, revealed that there was significant difference in the mean scores in Home Economics of male and female students in Enter Educate and Guided Discovery. However, to the contrary [8] revealed that gender has no significant effect on students’ problem solving abilities. This underscores the need for more experimental studies in education such as this one to further explore the efficacy of sex/gender as a variable especially since it has been established that students (males and females) belong to one of the two patterns/statuses of orientation of locus of control.

Internal and external locus of control (I-E) scale was developed by [9]. It is a psychology and instructional personality scale. It focuses on the ability of an individual to rationalize the outcome of learning or behaviour as being directly dependent on his/her own self efforts, perseverance, steadfastness, thrust, focus, zeal, determination or as result of predetermined destiny, chance, favour or luck.

It is a 29-item personality scale developed with each number having two alternatives “A & B”. Those subjects who score A are regarded as internals, “I”, while those with more “B” belong to the externals, “E”. The I-E scale “has an internal consistency reliability coefficient of 0.70 from a sample of 400 college students and a test-retest coefficient of 0.72” [10]. The I-E scale is usually employed in matching the subjects according to Experimental and Control groups as demonstrated in this study on using simulation in teaching senior secondary two students English language comprehension in Abia State, Nigeria.


[14] explored the extent LOC and mode of entry into the university affected the transferability of set induction and questioning skills from microteaching to actual teaching practice. She discovered that there was no significant effect of the therapy on the extent of transferability of microteaching set induction and questioning skill to actual teaching practice by the experimental group internalized and externalized subjects. The need for more research on the efficiency of LOC is, therefore, apparent perhaps focusing on lecture method and simulation.

Lecture method refers to the conventional cum traditional instructional practice where a teacher impacts knowledge to his or her students mainly verbally and monotonously too. It is often referred to as the talk and chalk method. The students, in that circumstance, pay attention while the teacher teaches/talks. According to [15] simulation is “the imitation of a real-world process or system overtime… Simulation is used when real system cannot be engaged because it may not be accessible or it may be dangerous… The act of simulation requires that a model be developed”. It can, in addition to the imitation of the real system adopt role playing technique where one demonstrates a mock of the real/actual situation.

It generally selects aspects of real-life-situations and presents a mock or imitation of same in the classroom to reduce the abstract nature of curriculum contents especially as may be experienced in English language comprehension passages. This is to improve learning, motivate learners and at the same time, elicit active participation of both teachers and learners. [16] employed a combination of simulation, games and discussion method in teaching English language comprehension and summary. The problem of selecting appropriate teaching methods still persists especially as one wonders whether simulation method per-se will have any marked improvement on the performance of students taught English language comprehension.
The purpose of this study is, therefore to:—

- determine the difference in the performance of students taught English language comprehension using simulation and those taught using lecture methods.
- establish if sex affects the performance of students taught English language comprehension using simulation and those taught using lecture methods.
- determine the difference in the performance of students in the experimental group taught comprehension using simulation based on locus of control.

It is believed that the findings of this study will assist curriculum planners while designing appropriate instructional strategies, techniques and methods for greater teaching effectiveness. Classroom teachers may also find this study relevant to their approaches and desire to reduce the abstract nature of teaching English language comprehension.

It is also hoped that the interest in continuous-learning characteristics the experimental group cultivated will be sustained towards more intensive learning of English language comprehension and perhaps other related course contents. Equally, the variable orientation of locus of control may readily serve as a pertinent personality and instructional scale for scholars and in fact everybody to determine whether someone is an Internalized or Externalized subject. Thus, researchers while using the scale may also wish to replicate this study using other school subjects in various locations. Finally, it is hoped that the findings of this study and the peculiarities of the experiment will contribute as datum guiding government in making pertinent policies in teaching methodology in English language in particular and the provision of general conducive learning environment in general.

The scope of this study is limited to senior secondary school two English language in Umuahia North, Abia State, Nigeria. Comprehension aspect of English studies is focused on during treatment phase. Two co-educational schools of similar characteristics were selected for the experimental and control groups.

Three research questions were posed to guide the study viz;

- What difference exists in the mean scores of subjects taught, English language comprehension using simulation and those taught using lecture methods?
- What difference exists in the mean scores of male and female subjects taught English language comprehension using simulation and those taught using lecture methods?
- What difference exists in the mean scores of subjects taught, English language comprehension using simulation based on orientation of locus of control?

2. Method

This is an experimental study conducted in Umuahia, Abia State Nigeria. It adopted the pre-test, post-test, control group design. Two groups namely experimental and control tagged E&C were used. While E-group received simulation method of teaching English language comprehension, the C group received the lecture method. These two groups are each located in different co-educational secondary schools in Umuahia North Local Government Area of Abia State. The population is Two hundred and twenty-two (222) senior secondary two students made up as follows: E-school = 132 and C-school = 90. The two schools are of parity in terms of co-educational status and ministry of education, Abia State ranking of schools. The two are also community secondary schools.

A sample of 60 students was randomly drawn from the population of 222. E-school has three streams and one intact class was selected while C-school has two streams of senior secondary school students and one intact class selected.

Table 1: Distribution of Subjects by Sex

<table>
<thead>
<tr>
<th>Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>15</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>35</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 1 reveals that E group has fifteen (15) males and sixteen (16) females while C group has ten (10) males and nineteen (19) females.

A researcher-made-instrument was used for the data collection. It was titled English-Language-Achievement-Test (ELAT). It was validated by experts in curriculum studies and measurement and evaluation. A reliability coefficient of 0.90 was established using Pearson Product Moment Correlation Statistics.

The experiment lasted for six weeks of three contacts of one hour each per day hence three contacts per week. Thus, a total of eighteen contacts were made during the period of the experiment for the E and C groups. The experiment had pre-treatment and treatment phases. The pre-treatment phase was used for the familiarization visits to schools, assuring them that the exercise
was a means of ensuring greater effectiveness in teaching and learning. The pretest was administered on the third and last day of the pre-treatment phase as a form of motivation.

The treatment phase lasted for six (6) weeks using simulation for the E group and lecture method for the C group. At the end of the therapy a post test was administered to the E&C groups.

3. Results

The results are presented in respect of the research questions (RQ) posed to guide the study: viz

**Research Question 1**: What difference exists in the mean scores of subjects taught English language comprehension using simulation method and those taught using lecture methods?

| Table 2: Mean and standard deviation with respect to RQ |
|---------|--------|--------|
| Source  | N   | X     | SD    |
| Simulation | 31  | 80.12 | 7.82  |
| Lecture   | 29  | 44.48 | 6.28  |

Table 2 reveals that the mean score for subjects N=31 taught using simulation is 80.12 with standard deviation 7.82 while those taught using lecture method N=29 had a mean score of 44.48 with standard deviation 6.28.

**Research Question II (a)**: What difference exists in the mean scores of males and females taught comprehension using simulation at post test?

| Table 3: Mean score and standard deviation with respect to Research Question 2a |
|---------|--------|--------|
| Source  | N  | X     | SD    |
| Simulation Male | 15 | 77.6  | 7.36  |
| Simulation Female | 16 | 82.88 | 7.05  |

Table 3 reveals that the mean score of male subjects, N=15, taught using simulation is 77.6 with standard deviation 7.36, while the mean score for the females, N=16, is 82.88 with standard deviation 7.05.

**Research Question II (b)**: What difference exists in the mean scores of male and female subjects taught English Language comprehension using lecture method at post test?

| Table 4: Mean score and standard deviation with respect to Research Question 2(b) |
|---------|--------|--------|
| Source  | N   | X     | SD    |
| Lecture method Male | 10  | 40.0  | 2.0   |
| Lecture method Female | 19  | 46.89 | 6.43  |

Table 4 reveals that the mean score of males N=10 in C group taught English Language comprehension using lecture method at post test is 40.0 with standard deviation, 2.0 while that of females N=19 is 46.89 with standard deviation 6.43

**Research question III**: What difference exists in the mean scores of subjects taught comprehension using simulation based on orientation of locus of control?

| Table 5: Mean score and standard deviation in respect of RQ |
|---------|--------|--------|
| Source  | N  | X     | SD    |
| Externalized | 7  | 81.73 | 9.52  |
| Internalized | 24 | 79.75 | 7.89  |

Table 5 reveals that the mean score of E group externalized subjects, N=7, is 81.73 with standard deviation 9.52, while that of the internalized subjects N=24, is 79.75 with standard deviation 7.98.

The results of data analysis shown in table II reveal that there is a marked difference in the mean scores of the two groups E&C. Thus, while E group, N=31, has a mean of 80.12 with standard deviation 7.82, C group, N=29, has a mean of 44.48 with standard deviation 6.28. Specifically, this indicates that the E group performed better than the C group. This finding is in line with [17] and [18].

Results of data analysis shown in Table III reveal that there is a marked difference in the mean scores of males, (N=15), and females, (N=16), in the E group. Males have mean score of 77.6 with standard deviation 7.36, while females, have mean score 82.88 with standard deviation 7.08. Specifically, this indicates that females performed better than males in the E-Group.

Results of data analysis shown in table IV reveals that there is a marked difference in the mean score of the males, N=10, and females, N=19, in the C group. Males have mean score 40.0 with standard deviation 2.0, while females have mean score 46.89 with standard deviation of 6.43. This implies that females performed better than the males in the C group.

It is pertinent to note that the females in the E&C groups performed better the males in those
two groups. This finding collaborates [19] who discovered significant difference in the mean score of males, N=22, and females, N=22, taught English Language comprehension and summary using simulation, games and discussion methods. Similarly, [20] reported significant difference in the mean scores of males, 54.00 and female, 63.00 in Home economics Enter Educate and Guided Discovery. The results of the study did not, however, corroborate that of [21].

Results of data analysis in Table V show that there is a marked difference in the mean scores of the Externalized, N=7, and internalized subjects, N=24, in the E group. Externalized subjects have mean score of 81.73 with standard deviation 9.52 while the internalized subjects have mean score 79.52 with standard deviation 7.98. Specifically, that indicates that the externalized subjects performed better than the internalized subjects. [22] discovered that orientation of locus of control of subjects did not affect their performance in the use of set induction and questioning skills during teaching practice. Thus, externalized subjects did not leave their mastery of the teaching skills involved to chance, favour or even luck. The externalized subjects in this study exhibited similar trait. However [23] discovered significant relationship between orientation of locus of control and academic attainment in both Mathematics and English language.

4. Conclusion and Recommendations

Summary of findings reveals marked difference existing in the mean scores of the E and C groups at post test. The basic peculiarity of this study emanates from the lackadasical approach of the subjects (the control) group towards attendance to class especially English language comprehension studies. These subjects and indeed some other students in school preferred loitering around and outside the school compound to being in the class reading and attending to lessons. All the students E& C groups were made to understand that punctually and regular attendance were mandatory on their part. This was duly emphasized during the pre treatment phase. The pre-test administered to them was mainly to sensitize them towards the seriousness of the experiment which they were told was more for their own benefit.

A second index of peculiarity of the study is the general non-quite conducive nature of the learning environment especially the school compound and classrooms. Even though there were visible efforts on the innovation of some physical structures by the government, more attention should still be paid to basic features inside the classrooms. For example, some classrooms do not have electricity, marker boards and instructional materials-storage-facilities. In some classrooms, writings on the board were not clearly visible/legible. Thus conscious efforts were made not to use white chalk to write on white chalkboard. These are basic necessary precautions that facilitate learning. Without steady power supply (electricity) during school hours and beyond, most attempts in simulating learning through technological appliances like television, slides and power point projector will be frustrated.

There is still need for further areas or aspects of English language to be taught using simulation and indeed other innovative instructional strategies. This, among other benefits, will raise the consciousness and awareness of learners and even their teachers towards continuous search cum emancipation of mankind thereby align with the special branch of education and pedagogy known as popular education which was greatly espoused by Professor Liam Kane of the University of Glasgow, Scotland as a dialogical model for the educator and mentee in the emancipation of mankind, community development, as social changes in the developing world such as Nigeria.

Simulation of pedagogical characteristics of popular education packaged in English language comprehension will be beneficial to students and teachers alike. While students are urged to remain in school always, teachers are also charged to be very dutiful. Thus, there should never be a period where all teachers will leave the school at the same time/day as witnessed during the treatment phase of this experiment. Conscious efforts should be made via interesting innovative instructional practices to make students remain in school and complete their academic programme. [24] reveals that “more than 20% of African children have never attended primary school or have left without completing primary education” (Source: UNESCO Institute for Statistics Database in [25]) This is an area of great concern on the part of teachers, policy makers/government and the general public. More worrisome though, [26] adds a report that “Nigeria accounts for about one fifth of the entire world’s out-of-school children, that is about 10.5 million or more of children. Stated more directly, Nigeria has the highest number of out of school-drop-outs in the world”

From this study it was seen that simulation was efficacious in improving the performance of students in English language comprehension. It was also revealed that externalized subjects in the experimental group performed better than the internalized subjects as highlighted earlier. These findings underscore the importance, efficacy and relevance of well planned and duly implemented
innovative instruction strategies, technique and methods. With due emphasis on popular education, as enshrined in English Language comprehension passages, very conducive learning environment, enhanced staff cum teacher motivation and stimulating instructional best practices, more children will remain in school and duly participate in educational-experimental sessions be they in the experimental and control groups.

Based on the findings of the study, and despite these few highlighted peculiarities, the following recommendations are made:-

- Abia State Government should, organize capacity building workshops/seminars more regularly for teachers on innovative teaching strategies such as simulation and the like in relation to school curriculum packages.
- There should always be due emphasis on the performance of both male and female students in school.
- Orientation of locus of control personality and instructional characteristics should always be highlighted for everyone to know his/her status and at the same time be conscious that hardwork in school and elsewhere is the key to success and not mere luck, chance, occasional favour and unpredictable circumstance.
- The tenets of popular education and increased access to school remain the substratum for raising one’s critical consciousness and national development through the emancipation of mankind and elimination ignorance.
- There is still need for more research or experiments on innovative best instructional practices beyond simulation that will enhance learning.

5. References


[18] Igwe, U.A. Effects of Simulation, Games and discussion Method on Senior Secondary Students
Performance in English Language Comprehension and Summary, Unpublished Ph.D. Thesis, Abia State University, Uturu, Abia State p.130


Degrees of Resources’ Utilization toward Improving Secondary Schools in Ondo State (Western), Nigeria

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Abstract

This abstract focuses on degrees of resources’ utilization toward improving secondary schools in Ondo State (Western), Nigeria. Twelve Area Education Officers selected, using non-probability sampling technique from the eighteen Area Education Offices in Ondo State, Nigeria, participated in the research. The Area Education Officers responded to a Likert type of a questionnaire on utilization of resources. Main sections of resources on the questionnaire are: property including school plant, its surrounding and recreational facilities; other facilities for curriculum, electronic library, media centres, and health. Other items centred on utilization of human qualities including staff-student ratio, guidance-counselling, dropout prevention programmes, schedules in relation to physical facilities, physically challenged learners, staff development, general teaching and learning, maintenance of discipline. The last section measured utilization of time. The responses on the questionnaire were analyzed using frequencies, percentages, and Chi-Square ($X^2$) statistics. Results showed that degrees of resources’ utilization in Ondo State, Nigeria secondary schools were low with respect to property and human qualities, but high with respect to time. The major inadequacies are perceived as special needs following modernization principles since Ondo State, Nigeria is a developing society. A number of recommendations are made toward improving the secondary schools: school plants should be made more attractive and functional, critical efforts are required to provide facilities adequately for every aspect of the curriculum. Other requirements include electronic library, media centres, and health centres/services. Human qualities require moderate staff-student ratio, more functional guidance-counselling services, dropout prevention programmes, provisions for the physically challenged; activity based teaching and learning methodology, and encouraging of research.

1. Introduction

Secondary education is that level of education which is after primary education and before tertiary education and it can markedly contribute to Nigeria’s development socially, economically, and politically [18]. This author added that Nigeria is a developing nation (pp. 311). Burstow presented four contributory factors to school effectiveness and three of them are relevant in this paper, namely: school factors such as buildings, resources, intake; classroom factors such as class and pupils’ characteristics; and teacher factors such as aims and strategies [6]. This author mentioned the need for research by teachers on the basis that it is ‘bottom-up’ implying action research that is initiated and conducted by teachers hence more realistic.

Resources include natural endowments, money, property, human qualities, and time (Martin & Ross [16]; Wordford & Jackson (Ed.) 2003; Geddes & Grosset [8]; Bullow (Ed.) 2007; Tanner & Tanner [23]; and Turnbull. J. (Ed.) 2010). A notable point is that empirical researches on utilization of resources appear scanty. Moreover, with respect to Secondary Schools in Ondo State, Nigeria, Ehinola investigated utilization of resources in relation to academic performance; that was a research that attempted a basic issue: the importance of resources to academic performance of students [7]. However, it seems clear today that resources are vital in education. Indeed, presentations of several authors (Akande [2]; Kukuru [12]; Igwe [10]; Ornstein & Levin [21]; McNerney & McNerney 2007; Bloom [4]; Shulman 2007; Sparks & Loucks – Horsley [22]; Guskey [9]; Levy & Murmane [14]; Ornstein [20]; Tanner & Tanner [23]; Oliver [19]; Akinsolu [3]; Agyenium – Boateng 2010; Kauchak & Eggen [11]; and Wiles & Bondi [25]), show that the issue of resources in education is germane. Accordingly, it becomes important to pay adequate attention to such a vital issue. Some examples follow from this array of references. According to Akande (2002: 97), teaching media are valuable in maximizing learners’ gains from a lesson. McNerney & McNerney [17] and Kukuru
[13], there is need to involve learners which is activity based methodology of teaching. Shulman noted (2007) that to advance the objectives of organized schooling, materials and structures for teaching and learning are created and that creation should be a familiar territory to the teacher. Bloom posited that certain ways of significantly effecting on students’ learning is by improving instructional and educational media [4]. On staff or professional development, the following statements are noteworthy: staff development is geared towards improving student learning through enhanced teacher performance [22]; every proposal to reform, restructure, or transform schools underscores professional development as a basic instrument [9]; and one response to the challenge of professional development has been greater application of technology [14]. Ornstein stressed equality and equity that advantaged and disadvantaged situations among humans stem from prior class distinctions which tend to cause disunity [20].

The centre of the resources in this paper is from Tanner & Tanner [23]. On page 497-499, the authors presented ‘best practices for curriculum development and school renewal’ with headings: A, B, C, D, E, F, G, H, & I. The last heading: ‘I’, has the title: Teaching-Learning Resources, Facilities, and Services. Together with all the sections A to I, the authors observed that most of the points are research based or suggested in professional literature. In this paper, the word ‘resources’ is used to accommodate all the points in section ‘I’, following the broad definition of resources stated above as encompassing natural endowments, money, property, human qualities, and time. On the premise that the points are described as ‘best practices’ they are realities; consequently, the measures may be termed as institutionalized.

Kukuru [12] presented improving the education sector through effective resource management. That article discussed several measures that would enhance effective resource management but the article was theoretical. Moreover, since the measures are presented by authors across the globe, there appears to be sufficient reason to rely on them as stated in the last paragraph. Thus an issue for curriculum researchers is to empirically investigate the extent to which the measures are implemented, practically.

On the issue of special needs, it might be viewed from biological or developmental perspectives. Biologically, such people as the physically challenged in locomotion, sight, hearing, or handling of objects, may belong to special needs group. Developmentally, if a society is behind some others in modernization (Turnbull 2010; [12], it has special needs. Employing the latter perspective, several developmental issues in Nigeria tend to be within the spectrum of special needs.

2. Statement of the Problem

It has been shown in the brief introduction above that resources are vital in improving the education sector. However, it seems that empirical researches on the area are scanty especially in the Nigerian context. Besides Tanner & Tanner [23] who stated that most of the points are research based, more empirical researches appear needed to provide more practical information. Moreover, since Ondo State, Nigeria is developing, this research virtually is a special need; hence the objective of this research is to present ‘degrees of resources’ utilization toward improving secondary schools in Ondo State, Nigeria’.

2.1. Purpose of Research

The purpose of this research is to:

Determine degrees of utilization of resources in secondary schools in Ondo State, Nigeria with respect to:

a. property
b. human qualities
c. time.

2. Identify resources that are not available for utilization in secondary schools in Ondo State, Nigeria with respect to:

a. property
b. human qualities
c. time.

3. Ascertain if there are preferences for provision of resources to secondary schools in Ondo State, Nigeria by gender.

2.2. Research Questions

The following questions guided this research.

1. What are the degrees of utilization of resources in secondary schools in Ondo State, Nigeria with respect to:

a. property?

b. human qualities?
c. time?

2. Which resources are not available for utilization in secondary schools in Ondo State, Nigeria with respect to:

a. property?

b. human qualities?
c. time?

3. Are there preferences in the provision of resources to secondary schools in Ondo State, Nigeria based on gender?

2.3. Research Hypothesis
One hypothesis only, but possessing three components, was generated for this research as follows: The degrees of utilization of resources in secondary schools in Ondo State, Nigeria are high with respect to:

a. property
b. human qualities
c. time.

Research question 2 did not require testing of hypothesis; it was sufficient to pick the unavailable resources from the responses on Table 1. Research question 3 also did not require testing of hypothesis because there was perfect agreement on Table 1 that, there were no preferences in the provision of resources to secondary schools in Ondo State, Nigeria, based on gender.

2.4. Significance of the Research

This research will provide empirical information on utilization of resources in secondary schools in Ondo state, Nigeria. Beyond the state, most literature reviewed, provided theoretical rather than empirical information. Thus this research would be relevant to class teachers, curriculum or teacher education researchers, other researchers, and contiguously education administrators generally. Connecting the position from introduction, the findings from this research would provide some clues toward meeting special needs in Ondo State, Nigeria.

3. Research Methodology

This research is a survey. A Likert type of questionnaire was the main instrument that was utilized to obtain required data. All Area Education Officers in Ondo State, Nigeria formed the population of the research. Ondo State, Nigeria has a total of eighteen Area Education Offices, one officer being in charge of each Area Education office, in each Local Government Area. Following the title of the research: ‘Degrees of resources’ utilization toward improving secondary schools in Ondo State’, the researcher decided to involve the supervising officers: Area Education officers, on the basis that they would be more honest than the school Principals in responding to the items. The idea is that the Area Education Officers have little at stake compared to school Principals. Twelve out of the eighteen Area Education Officers participated in the research as the sample. The sampling process was purposive: to involve four Local Government Areas from each of six, in the three Senatorial Districts and to ensure that Local Government Areas were balanced enough with respect to urban, rural, and both urban and rural (BUR) human ecologies. The instrument: Likert type of questionnaire was developed by the researcher. It contains twenty one major items. (Quite a good number of the items possessed sub-items; consequently, the over-all total was forty eight.) The items started with property: (items 1-7) which included school plant and its recreational equipment, facilities for curriculum, electronic library, laboratory, media centre; spaces for classrooms, desks and chairs, files, instructional media, shelves, with respect for teachers and learners; provision for health facilities. The next items of the questionnaire measured utilization of human qualities (items 8-19) as follows: staff-student ratio, guidance-counselling dropout prevention programmes, schedules in relation to physical facilities, physically challenged learners, staff development programmes, general teaching and learning processes, maintenance of discipline, research, encouragement of community/business people, and equality/equity. The last items (20&21) were on utilization of time in relation to meetings, evaluations, and after school and holiday learning programmes. The items were informed by authors including Akande [2]; Kukuru [12]; Igwe [10]; Ornstein & Levin [21]; McNerney & McNerney [17]; Shulman (2007); Sparks & Loucks-Horsley [22]; Guskey [9]; Levy & Murnane [14]; Ornstein (2007); Tanner & Tanner [23]; Oliver [19]; Akinsolu [3]; Agyenim-Boateng [1]; Kauchak & Eggen [11]; and Wiles & Bondi [25].

Curriculum and test and measurement specialists validated the instrument in relation to face and content processes. On construct validity, the instrument was established through concurrent procedure. The questionnaire was administered to a sample of 10(ten) Principals (that would not participate in the research) alongside items of a ‘School Resources Utilization’ questionnaire adopted from Ehinola [7]. The scores of the ten (10) Principals on the two instruments were subjected to Pearson Product Moment Correlation and a coefficient index ‘r’ of 0.81 was obtained. This result implied that the two instruments measured very similar constructs. Test-retest reliability estimating procedure was employed for the reliability value of the instrument. The questionnaire was administered to 10 (ten) Vice Principals in secondary schools, different from those of construct validity, twice, at interval of two weeks. The data obtained from the two administrations of the same instrument, were subjected to Pearson Products Moment Correlation which yielded an ‘r’ of 0.78. The result indicated that the instrument is reliable.

A letter of introduction of the researcher was given to the researcher by his Dean, Faculty of Education, Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria to enable him approach the respondents formally. The researcher first approached the Ministry
of Education and obtained approval for the research. Next, he went to each of the identified Area Education Offices to administer the questionnaire. On the basis that the sample is limited: 12 (twelve), there was need to do all the sacrifice to collect each copy from each Area Education Officer from the distributed Local Governments across the State. The duration of the administration was elongated further due to final examinations of the secondary school students that the Education Officers were supervising. However, all copies (12) administered were collected.

The obtained data were analyzed using frequencies, percentages, and Chi-Square ($X^2$) statistics as the data collected required no more complex analysis or further probing.

The Local Government Areas in Ondo State, Nigeria and their Headquarters

Ondo North Senatorial District
1. Ose             -     Ifon
2. Owo            -    Owo
3. Akoko South East  -  Isua
4. Akoko South West  -  Oka
5. Akoko North East  -  Ikare
6. Akoko North West  -  Okeagbe

Ondo Central Senatorial District
1. Ondo West - Ondo
2. Ondo East - Bolorunduro
3. Idaare - Owena
4. Ifedore - Igbaraoke
5. Akure South - Akure
6. Akure North - Iju/Itaogbolu

Ondo South Senatorial District
1. Ese-Odo-Igbekebo
2. Ilaje - Igbokoda
3. Irele - Irele
4. Okitipupa - Okitipupa
5. Odigbo - Ore
6. Ile-Oluji/Okeigbo - Ile–Oluji

Twelve of the Senatorial Districts participated in the research; four were purposely picked from each Senatorial District as follows:

<table>
<thead>
<tr>
<th>North Senatorial District</th>
<th>Type of Settlement</th>
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<tbody>
<tr>
<td>Akoko North East</td>
<td>Both Urban and Rural</td>
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<td>Ikare as Centre</td>
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<td>Akoko North West</td>
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<td>Okeagbe Centre</td>
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<td>Owo</td>
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Central Senatorial District | Type of Settlement
1. Akure North: Iju/Itaogbolu
2. Akure South: Akure Urban
3. Ondo East: Bolorunduro Rural
4. Ondo West: Ondo Both Urban and Rural

South Senatorial District | Type of Settlement
1. Irele: Irele Rural
2. Ese-Odo: Igbekebo Rural
3. Okitipupa: Okitipupa Both Urban and Rural
4. Ilaje: Igbokoda Both Urban and Rural

3.1. Statistics

% of Local Government Areas that participated = 66.67% (12/18=2/3×100/1)
Types of Settlement: Urban: 1: 1/12=8.33%; Rural: 4: 4/12=33.33%; Both Urban and Rural: 7: 7/12=58.33%.

4. Results

Results obtained from analyses of the data collected are presented below on three tables.

Table I. Frequencies and Percentages of all Responses to the Questionnaire Administered
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<td>C. Time Utilization</td>
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<td>21b</td>
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<td>8</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>25.00</td>
</tr>
</tbody>
</table>

'SA' means Strongly Agree; 'A' means Agree; 'D' means Disagree; 'SD' means Strongly Disagree.

**Table 2: Summary of (Table 1) all the Responses to the Questionnaire Administered**
<table>
<thead>
<tr>
<th>Main Items</th>
<th>Detailed Items On Each Section</th>
<th>Total Score</th>
<th>Average Score Out Of 12 A+SA</th>
<th>Percent age</th>
<th>Total Score</th>
<th>Average Score Out Of 12 D+SD</th>
<th>Percent age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&amp;2, 4-7</td>
<td>Property 23 items</td>
<td>71</td>
<td>3 (71/23)</td>
<td>25.00</td>
<td>207</td>
<td>9 (207/23)</td>
<td>75.00</td>
</tr>
<tr>
<td>8-19</td>
<td>Human Qualities 17 items</td>
<td>76</td>
<td>4.47 (76/17)</td>
<td>37.3</td>
<td>128</td>
<td>7.53 (128/17)</td>
<td>62.7</td>
</tr>
<tr>
<td>20 &amp; 21</td>
<td>Time 5 items</td>
<td>48</td>
<td>9.6 (48/5)</td>
<td>80.00</td>
<td>12</td>
<td>2.4 (12/5)</td>
<td>20.00</td>
</tr>
<tr>
<td>3</td>
<td>Gender Three(3)3a, b, &amp; c items</td>
<td>3</td>
<td>0 (0/3)</td>
<td>0 (0/12×100/1)</td>
<td>36</td>
<td>12 (36/3)</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3: Result of Chi-Square ($X^2$) Comparisons on the Summary Scores on Table 2

<table>
<thead>
<tr>
<th>Main Resource</th>
<th>Average Score: Strongly Agree Plus Agree</th>
<th>Average Score: Strongly Disagree Plus Disagree</th>
<th>Percent age: Strongly Agree Plus Agree</th>
<th>Percent age: Strongly Disagree Plus Disagree</th>
<th>$X^2$ Value</th>
<th>Degree of Freedom</th>
<th>Table Value</th>
<th>Significance Level</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>Property</td>
<td>3</td>
<td>9</td>
<td>25.00</td>
<td>75.00</td>
<td>25.00</td>
<td>1</td>
<td>3.841</td>
<td>0.000</td>
<td>Significant (ST)</td>
</tr>
<tr>
<td>Human Qualities</td>
<td>4.47</td>
<td>7.53</td>
<td>37.3</td>
<td>62.7</td>
<td>6.95</td>
<td>1</td>
<td>3.841</td>
<td>0.015</td>
<td>ST</td>
</tr>
<tr>
<td>Time</td>
<td>9.6</td>
<td>2.4</td>
<td>80.00</td>
<td>20.00</td>
<td>36.00</td>
<td>1</td>
<td>3.841</td>
<td>0.0</td>
<td>ST</td>
</tr>
<tr>
<td>Gender</td>
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<td>12</td>
<td>0</td>
<td>100</td>
<td>Not Comparable</td>
<td>Perfectly Disagree</td>
<td></td>
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</tr>
</tbody>
</table>

5. Answering of Research Questions
The questions that guided this research are hereby answered.

Research Question 1 asks: What are the degrees of utilization of resources in secondary schools in Ondo State, Nigeria with respect to:

a. Property?

b. Human qualities?

c. Time?

The first two columns on Table II above, would enable us answer this question. The percentages read 25.00 against 75.00, 37.3 against 62.7, and 80 against 20 respectively. The implications are that the degrees of utilization of resources in secondary schools in Ondo State, Nigeria are low with respect to property and human qualities but high with respect to time utilization.

Research Question 2 asks: Which resources are not available for utilization in secondary schools in Ondo State, Nigeria with respect to:

a. Property?

b. Human qualities?

c. Time?

The omnibus Table I would enable us answer this question. Resources that are not available on property are: for some aspects of the curriculum, electronics library, media centres, adequate health facilities/services, moderate staff-student ratio, functional/adequate guidance-counselling services, provision for physically challenged learners, activity based teaching and learning methodology, and high encouragement of research, are not available. Sufficient time however, is utilized in the secondary schools as noted in last paragraph above.

Research Question 3 asks: Are there preferences in the provision of resources to secondary schools in Ondo State, Nigeria based on gender? Items 3 a, b, & c on Table I are on gender and their summary responses on Table II show 0 against 100%. It perfectly shows that there are no preferences in the provision of resources to secondary schools in Ondo State, Nigeria, based on gender.

6. Testing of Hypothesis

The hypothesis that was generated for this research is hereby tested. It states that: The degrees of utilization of resources in secondary schools in Ondo State, Nigeria are high with respect to:

a. Property,

b. Human qualities,

c. Time.

Chi – Square ($X^2$) comparisons on Table III provide values for testing this hypothesis. With respect to property, the two opposing summary percentages of combined agreed with strongly agreed against combined disagreed with strongly disagreed are 25 and 75, respectively. The Chi-Square ($X^2$) value for these comparisons is 25.00 which are significant at 0.00 levels. It follows that, responses on disagreed are significantly different from responses on agreed. The implication is that utilization of resources in secondary schools in Ondo State, Nigeria with respect to property is low. Consequently, ‘a’ component of the hypothesis is rejected.

With respect to human qualities, the appropriate percentages on Table III are 37.3 and 62.7. The Chi-Square ($X^2$) value for their comparison is 6.95 at 0.015 levels of significance. It indicates that responses on disagreed are significantly different from responses on agreed which implies that utilization of resources in secondary schools in Ondo State, Nigeria with respect to human qualities is low. In effect, ‘b’ component of the hypothesis is rejected.

In relation to time, the two relevant percentages on Table III are 80 and 20. Chi – Square ($X^2$) value for their comparison is 36.00 with significant level at 0.0. It shows that responses on agreed are significantly different from responses on disagreed which imply that utilization of time resource in Ondo State, Nigeria secondary schools is high. Accordingly, ‘c’ component of the hypothesis is accepted.

7. Discussion of Findings

The first finding from this research is that degrees of utilization of resources in secondary schools in Ondo state, Nigeria are significantly low with respect to property and human qualities but significantly high with respect to time. Based on the references in the introduction of this paper (Akande [2]; Sparks & Loucks-Horsley [22]; McNerney & McNerney [17]; Bloom [4]; Guskey 2007; Levy & Murnane [14]; Ornstein 2007; Tanner & Tanner [23]; Ojerinde [18]; & Burstow [6], adequate performances by the secondary schools in the population of this research could hardly be expected. Tanner & Tanner [23] described the measures as best practices and that they are intended to bring improvement to schools. In a similar vein, Ojerinde stressed that the secondary schools that are the link between the primary and tertiary levels of education can markedly contribute to Nigeria’s development socially, economically, and politically [18]. But the finding from this research suggests that the role would be hard to play. With respect to time, however, the finding agrees with recommendation of authors such as Tanner & Tanner.

The second finding from this research is that certain resources were not available. On property, they included: some facilities for aspects of the curriculum, electronic library, media centres, and adequate health facilities/services; on human qualities, there were no
moderate staff-student ratio, functional/adequate guidance counselling services, provision for physically challenged learners, activity based teaching and learning methodology, and high encouragement of research. Perhaps there is no need to dwell on this finding on the ground that it rather shows worse situations than the first finding. Notwithstanding, a few points may be made. One of them is provision for the physically challenged leaners. The group has been referred to in this paper as those with special needs biologically. Such learners demand special attention [23]; yet they are not expected to be isolated from other students. Due to their biological limitation, the group may be perceived as less privileged and attempts to improve their welfare would tend to agree with Ornstein (2007)’s stress for equality and equity. Another germane point on them is teaching and learning methodology which was not activity based. That situation requires prompt and adequate attention. McNerney & McNerney [17] and Kukuru [13] underscored the need to involve learners which is activity based methodology; it makes for better awareness and long term memory. The last finding from this research was that there were no preferences for resources to the secondary schools in Ondo State, Nigeria based on gender. This finding is in line with the equality/equity principle of Ornstein and it is a credit to the education system. Stress on equality/equity seems capable of reducing conflicts, hence, promoting of peace which is a major atmosphere for development in any society [20].

Sequel to the position taken in this paper, since Nigeria is a developing nation, all the inadequacies identified from the findings of this research, are virtually special needs.

8. Conclusion

This research has shown that degrees of utilization of resources in secondary schools in Ondo State, Nigeria are: low with respect to property and human qualities, but high with respect to time. Moreover, certain resources were not available for utilization on property and human qualities. The inadequacies are virtually special needs in Ondo State, Nigeria, using the spectacles of modernization.

9. Recommendations

It has just been stated that major inadequacies identified from this research are virtually special needs in Ondo State, Nigeria. Consequently, the following recommendations are made to increase degrees of utilization of resources in secondary schools in the State toward meeting the needs.

1. School plants should be made more attractive and functional and their sites should be large enough for possible future expansions. There should be adequate recreational facilities of varying kinds in them.
2. Critical efforts should be made to provide facilities adequately for every aspect of the curriculum.
3. Electronic library is needed in each secondary school to open up the students to current friends in getting information.
4. Media centres are needed in some lesson delivery systems such as programmed instruction.
5. Adequate health facilities/services are essential at least in each Local Government Area for all the secondary schools in it.
6. To correct schools with staff-student ratio that are greater than 1:40, more secondary schools may be built or existing ones may be expanded and new teachers should be recruited to take care of the expansions.
7. Guidance-counselling services obviously require greater attention.
8. Drop-out prevention programmes like diploma should be developed.
9. Provisions should be made for physically challenged learners in each Local Government Area, at least.
10. General teaching and learning processes in the schools should be centred on activity based methodology to involve learners and make for long term memory.
11. Research by human resources: teachers and education managers should be better encouraged.

10. References


Appendix

Adekunle Ajasin University
Akungba Akoko, Ondo State, Nigeria

Faculty of Education

Dear Respondent,

Research Questionnaire

This paper contains a questionnaire on Degrees of resources’ utilization toward improving secondary schools in Ondo State, Nigeria. The purpose is to bring about improvement in our secondary school system. Required information is strictly meant for research analysis. Kindly therefore honestly respond on each item presented.

Thank you for your anticipated cooperation.

Yours sincerely,

Jolly D. Kukuru.

Section A: Demographic Information

Name of State:  Ondo □ Other □

Name of Ministry:  Education □ Other □

Name of Local Government Area (LGA) -----------------------------------------------

Department/Unit of Ministry: Research and Statistics □ Other □

Location/Environment of LGA: Generally Urban □ Generally Rural □ Both Urban and Rural □

Officer Responding:  Area Education Officer □ Someone Else □
Section B: Main Body of the Questionnaire

<table>
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<tr>
<th>SITUATION ON RESOURCE</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
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<td><strong>A. PROPERTY</strong></td>
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<td><strong>I. SCHOOL PLANT</strong></td>
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<td>1a. School plant that is attractive and functional is provided for every secondary school.</td>
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<tr>
<td>1b. Sites for school plant are adequate for possible future expansion.</td>
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<tr>
<td>1c. School plants have outdoor recreational facilities.</td>
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<tr>
<td>1d. Recreational facilities in each school are ample, even for community use.</td>
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<td>1e. Sizes of school plants are large enough for:</td>
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<td>1ei. Staff</td>
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<td>1eii. Facilities</td>
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<tr>
<td>1eiii. Both staff and facilities.</td>
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<td><strong>II. OTHER PROPERTY</strong></td>
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<tr>
<td>2. a. There are adequate facilities in all aspects of the secondary school curriculum.</td>
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<td>2b. E- Library is provided for each secondary school.</td>
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<tr>
<td>2c. One E- Library is provided for all the secondary schools in each Local Government Area (LGA).</td>
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<td>2d. There is well equipped laboratory in every secondary school.</td>
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<td>3. Markedly better facilities are deliberately provided on the basis of gender for:</td>
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<tr>
<td>3a. male gender</td>
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<tr>
<td>3b. female gender</td>
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<tr>
<td>3c. mixed gender.</td>
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<td>4. Media centres are provided at:</td>
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<tr>
<td>4a. Each LGA.</td>
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<tr>
<td>4b. Each secondary school.</td>
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<tr>
<td>4c. There is adequate electricity power supply for each media centre.</td>
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<tr>
<td>5. Spaces for teachers are sufficient with respect to:</td>
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<tr>
<td>5a. Classrooms</td>
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<tr>
<td>5b. Desks and chairs</td>
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<td>5c. Files</td>
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<td>5d. instructional media</td>
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<tr>
<td>5e. shelves.</td>
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<tr>
<td>6. a. Spaces for work with respect to learners’ desks and chairs are adequate.</td>
<td></td>
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</tbody>
</table>
6b. Spaces for learners are large enough to enable the learners move their desks and chairs for various activities in the classroom.

7. Adequate health facilities are provided:
   a. In each secondary school.

7b. In each LGA for all the secondary schools.
## B. HUMAN QUALITIES

<p>| | | |</p>
<table>
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<tr>
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<tbody>
<tr>
<td>8.</td>
<td>Staff-student ratio is not greater than 1:40 in each classroom.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>a. Each secondary school is provided with Guidance-Counsellor/s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Each Guidance-Counsellor is responsible for not more than 350 students.</td>
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<tr>
<td>10.</td>
<td>Drop-out prevention programmes are available in each school, for example, diploma programme.</td>
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<tr>
<td>11.</td>
<td>Schedules in relation to physical facilities and course offerings (Time Table) are well articulated and flexible enough.</td>
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<td>12.</td>
<td>There is provision for physically challenged learners:</td>
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<td></td>
<td>a. In each school.</td>
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<tr>
<td>12b.</td>
<td>In one school for all the students in each LGA.</td>
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<tr>
<td>13.</td>
<td>Adequate health services are provided:</td>
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<tr>
<td></td>
<td>a. In each school.</td>
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<tr>
<td>13b.</td>
<td>In each LGA for all the secondary schools in it.</td>
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<td>14.</td>
<td>Qualitative and regular in-service (staff development) programmes are conducted for teachers.</td>
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<td>15.</td>
<td>General teaching and learning processes in the schools are centred on activity based methodology.</td>
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<td>16.</td>
<td>Teachers adequately maintain discipline: manage classrooms.</td>
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<td>17.</td>
<td>Research by human resources is encouraged.</td>
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<td>18.</td>
<td>There is encouragement of community/business people:</td>
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<td></td>
<td>a. as volunteers to help where need arises</td>
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<tr>
<td>18b.</td>
<td>for donations for development</td>
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<td>18c.</td>
<td>to give awards to schools.</td>
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<td>19.</td>
<td>Equality/equity is stressed by Principals/Heads of Departments.</td>
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<td>20.</td>
<td>Reasonable/proportional time is allocated to:</td>
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<td></td>
<td>a. All meetings in each school.</td>
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<td>20b.</td>
<td>All evaluations or supervisions:</td>
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<td>20bi.</td>
<td>for each school.</td>
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<td>20bii.</td>
<td>Within each school for all programmes.</td>
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<tr>
<td>21.</td>
<td>Additional time is utilized through:</td>
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<tr>
<td></td>
<td>a. Effective after school programmes during the school calendars.</td>
<td></td>
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<tr>
<td>21b.</td>
<td>Effective holiday learning programmes.</td>
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Impact of Explicit Comprehension Strategy on Struggling Elementary Students’ Ability to Comprehend and Compose Argumentative Text

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2Learning Disabilities Teacher Consultant, George J Mitchell Elementary School
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Abstract

The purpose of this study was to examine the impact of explicit comprehension strategy on struggling upper elementary students’ ability to comprehend and compose arguments. This particular strategy named critical analysis of argumentative text (CAAT) addressed Common Core State Standards (CCSS) to enhance students’ higher level comprehension and composing skills.

Two special education teachers conducted action research to implement instruction and collect pre- and post-data on reading comprehension (i.e., identify, summarize and analyze argumentative text) and writing (i.e., write persuasive essay) measure. Total of 11 students with learning disabilities from fourth grade (n=5) and fifth grade (n=6) participated in the study.

The first author developed all the instructional materials and reading comprehension strategy CAAT. This particular strategy was influenced by Chambliss’ (1995) comprehension model and Graham and Harris’ (1999) strategy instruction and Beck, McKeown, Hamilton, & Kucan’s, 1997 “Question the Author” approach.

The preliminary descriptive statistics indicated improvement in summarizing and overall critical analysis scores from pre- to post-test. The posttest summaries were longer and included argumentative elements and the students’ briefly explained whether the argument was convincing or not, whereas, pretest summaries were vague and they did not analyze the argument. Additionally, the student’s writing also improved from couple of sentences to couple of paragraphs that included keywords and argumentative structure. Though, the instruction was brief, the overall results indicate that explicit comprehension strategy improved students’ ability to comprehend and compose argumentative texts.
Session 7: Inclusive Education

Gradual Intervention Model for Individual Needs at Local Schools
(Author: Tarja Hännikäinen)

A Special Needs Second-Grader: Facing the Challenges of Mathematical Place Value
(Authors: Estella De Los Santos, Barba Patton)

A Grounded Theory Study on the Effects of Mentoring for Hearing-Impaired Students under Integrated Education
(Author: Jung Hyun Park)
Gradual Intervention Model for Individual Needs at Local Schools

Tarja Hännikäinen
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A National Resource Center, Jyväskylä, Finland

Abstract

In Finnish education schools follow three gradual intervention steps for supporting individual needs of all children. This model provides holistic support for learning and growth process. The aim is that after comprehensive school a student could study and live a satisfactory life of his/her own.

Universal support is used to identify problems and to provide support immediately when the risk in a pupil’s development and ability to learn is recognized. A teacher, with a multiprofessional team, is responsible for taking care of the various needs of each pupil. If a pupil’s situation changes, the needs will be reviewed.

Intensified support is used to prevent problems from expanding. Pedagogical assessment is drawn up to review the needs, and an Individual Learning Plan is made. Regular follow-up is set by a multiprofessional team.

Special support is for pupils’ holistic and systematic support. This requires an administrative decision, and psychological, medical or social statements. The decision determines all ways of support, and an Individual Educational Plan is obligatory. Special support must be reviewed regularly.

A municipality, professional staff and a pupil with guardians can ask for consulting services by national resource centers in order to implement inclusive education. Valteri network, built up by all these centers, offer services for needs especially concerning autism spectrum disorders, language and communication, hearing, mobility and motor coordination, neurological or chronic illnesses, challenges with vision and pupils with multiple needs. Common procedures are consulting visits, support courses for children, training for professionals and learning material production.
A Special Needs Second-Grader: Facing the Challenges of Mathematical Place Value

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Abstract

The study sought to diagnose a second grade student’s knowledge of mathematical place value and improve understanding of place-value concepts for numbers 1 to 999. A pretest and posttest were used to assess knowledge of place value. An individualized education plan was used to advance and monitor the student’s progress.

1. Introduction

The student is currently in a second grade inclusion classroom and goes to a special education classroom for reading, writing, and mathematics. The student has been diagnosed with mild retardation and is currently performing at the first grade level in the three subjects. The student has been introduced to several models in mathematics such as counters, touch points, base-ten blocks, and the number line. According to the student’s classroom teacher, the student is having difficulty with several mathematics concepts including place-value and seems to lose focus when presented with several models. In this study the researchers will be addressing place-value concepts.

The research objectives of the study were: 1) to assess the student’s knowledge of mathematical place value, 2) to develop an individualized education plan (IEP) and 3) to use the IEP to improve the student’s comprehension of place value for numbers 1 to 999.

2. Literature Review

The National Council of Teachers of Mathematics has set as one of the standards for grades Pre-K through 2nd grade: “use multiple models to develop initial understandings of place value and the base-ten numbering system” [1]. The Common Core State Standards Initiative [2] has set understanding two-digit place value for first-grade students and three-digits for second-grade students.

In a 2007 study [3], the researchers investigated understanding of place-value concepts in 128 primary, intermediate, and junior high students. The students had mild disabilities and were grouped according to their achievement level. Six tasks were categorized for each student as being achieved at Level 1, 2, 3, or 4 with Level 4 being the highest level. The results showed that a higher percentage of the students in the junior high group attained Level 4 in each of the six tasks. They were followed by the intermediate group and the least number coming from the primary group. “Student performance increased with age, indicating a developmental trend”. [3] The results were similar to those of Ross [4], who found that higher performance correlated with age and grade level.

Susan Ross [4, 5, 6] investigated two-digit place value concepts with second through fifth grade students. She proposed five stages in the development of children’s understanding of place value. In the first stage, the child is able to read and write two-digit numerals and associate them with the number of objects that they represents; however the child does not know the meaning of the two digits. In the second stage, the child knows that the digit on the right is in the “ones place” and that the digit on the left is in the “tens place”; however the child does not understand the quantity represented by each digit. In the third stage, the child can state that the digit on the left represents “x” number of “tens” and that the digit on the right represents “y” number of “ones”; but does not know that the objects represented by the ones and tens are different objects. In stage four, the child knows that the digit on the left represents sets of ten objects and that the digit on the right represents single objects; however this knowledge is not consistent when presented with non-canonical partitioning of objects. In stage four and five, the children understand part-whole relationships. Stage five differs from stage four in that “the quantity of objects corresponding to each digit can be determined even for collections which have been non-canonically partitioned”.

Part-Whole relationships can be taught to young children, for example by asking them to count 10 objects. Then divide the objects into two groups such as a group of 4 and 6 and ask them to count the objects again [7]. At first children do not see a pattern in numbers between 10 and 20. They see these as nine additional numbers and words. It is
important to use activities were the students can identify fifteen as ten and five more [7]. The use of base ten blocks enhances students’ understanding of place value. Resnick and Omanson [8] confirmed Vygotsky’s earlier findings of the importance of verbalization.

Miller and Hudson [9] provided several guidelines for helping students with disabilities understand math concepts: use several models to represent the concepts, use appropriate lesson structures for specific concepts, use appropriate mathematical language, use real life applications, and use clear and explicit instruction. These strategies are important for all students to gain a conceptual understanding of mathematics.

3. Methodology

The study served to (a) identify the unique needs of the student, (b) guide the selection of instructional content and materials, (c) create an individualized education plan (IEP), (d) monitor student progress, and (e) evaluate learning. [10] Adequate representation of content, appropriate scope and sequence of the content and developmentally appropriate content were addressed to insure accurate measures.

The authors developed two questionnaires, Form A and Form B, modeled after the work of Susan Ross [4, 5, 6]. Form A was used as a diagnostic pretest and Form B was used as a summative evaluation of the individualized instruction. The assessments were used to determine if the student has comprehension of place-value concepts for numbers 1 to 999.

Based on the results of the diagnostic assessment, the researchers developed an IEP to extend the student’s understanding of place value. Formative evaluations were included in the IEP. The instructional models were developmentally appropriate. Each of five instructional sessions was approximately 20 minutes in length. The instructional timeline was individualized and adjusted according to the student’s needs.

4. Results

The pretest showed that the student was not able to represent numbers between 1 and 999 using the Base Ten Blocks. Because of the student’s difficulty with numbers from 1 to 100, numbers greater than 100 were not used in the study. The student was able to count from 1 to 100 using the Hundreds Chart. The student had 80% mastery in naming random numbers from 1 to 100 and in using Base Ten Blocks to represent those numbers. After the study, the student should be ready to attempt numbers greater than 100.

5. Conclusions

Based on the results of the pretest, the researchers diagnosed the student’s level of understanding of mathematical place value at Level 2 [4, 5, 6]. After the five instructional sessions, the results of the posttest determined that the student’s understanding of place value was at Level 4 [4, 5, 6]. The results will be provided to the student’s classroom teacher in order that the student’s needs may be more adequately addressed during the next school year.

6. References


A Grounded Theory Study on the Effects of Mentoring for Hearing-Impaired Students under Integrated Education

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Abstract

Education for disabled students is recently shifting from a special education paradigm to an integrated education paradigm. Under the appropriateness of integrated education, however, this system has hearing-impaired students physically integrated with non-disabled students without considering individual characteristics, so many of them undergo psychosocial difficulties, such as identity confusion and unstable peer relations, while being isolated in non-disabled people's world. Besides, some quantitative researches verified the effectiveness of mentoring programs supporting high-risk teenagers' psychosocial adjustment, but no mentoring program exists for hearing-impaired students, thus no research on its effectiveness.

Since there are limitations in quantitative studies for recognizing specific situations, a qualitative study was carried out for in-depth analyses of the subjects’ experiences. In particular, the 'grounded theory' methodology was implemented for its strengths in dynamic analyses of specific interaction processes in various contexts.

Thus, as a hearing-impaired person, I conducted mentoring for a group of 9 hearing-impaired teenagers in 2 years. With grounded theories about the effectiveness of mentoring, I investigated how they changed through this mentoring program. As research participants, this study had 9 hearing-impaired teenagers between 16 and 19 and collected data through semi-structured interviews. Based on the grounded data, this study discovered 101 concepts, 24 subcategories and 10 superordinate categories in total. The causal condition was 'Participation Motive' and the central phenomenon was mentees' 'Having Various Experiences' with their mentor. The contextual condition was mentees' 'Expectation' and 'Negative Experiences', and the interventional condition was 'Identifying with Each Other'. Consequently, they experienced 'Growth and Change' as a mentee, and suggested 'Improvement and Development'.

Through the results above, this study emphasized the importance of mentoring programs, while implying the necessity of institutionalizing them in the integrated education for hearing-impaired students and associating them with various other school and social services.
Session 8: Assistive Technologies

A Pilot Investigation on the Social Processing Schedule
(Author: Tsang Kwan Lan Vicky)

Tactile Adaptation of a Painting for Visually Impaired People Based on Information Layering
(Authors: Anna A. Kholina, Maria B. Akselrod)

A Guide to Cutting-Edge Assistive Devices: Successes and Challenges
(Author: Samantha C. Wu)
A Pilot Investigation on the Social Processing Schedule

Tsang Kwan Lan Vicky
Hong Kong Institute of Education

Abstract

This pilot study aims to investigate the content validity of the newly-developed Social Processing Schedule (SPS). It comprises of 7 social video vignettes and a structured interview schedule for assessing the subjects’ social processing on six dimensions: (1) visual encoding of social information, (2) auditory encoding of social information, (3) perception of social context, (4) emotional recognition and social reasoning from own perspective, (5) awareness of others’ emotions and thoughts, and (6) anticipation / prediction of impact of own behavior on others’ emotion. Based on the interview data, the interviewer will further rate the subject’s social processing on a likert scale according to the six dimensions. The rating scale has undergone content review by experts and will undergo Rasch analysis in order to obtain more information on its psychometric properties. Once the measure is found valid and reliable, the SPS will be used to discriminate social processing between individuals with high functioning Autism Spectrum Disorders and their peers in the controlled group in future studies.

1. Introduction

Although the exact mechanism behind the social communication deficits manifested in individuals with high functioning Autism Spectrum Disorders (HFASD) is still unknown, latest research has been focusing on the social cognition processing theories.

2. Literature review

2.1. Social cognitive processing theories

The social cognitive processing approach mainly attempts to answer the question: what kind of processes does an individual go through during a social encounter? Social cognitive processing approach proposes that social behaviour is preceded by the cognitive processes of encoding, interpretation, goal clarification, response generation and response decision [1]. Each social situation consists of massive potentially relevant information. During the initial encoding stage, the most relevant social cues in a given situation are attended to and encoded for further processing. To enable efficient processing of social information, encoding needs to be selective and spontaneous. Individuals may differ in the selection of social information they attend to, the duration of fixation on specific information once it is selected, and the interpretation of the social information that is encoded. During the latter response stage, the individual will need to come up with a response plan or goal, with which the appropriate type and level of emotions needed to generate various response options will be aroused and regulated. The individual will then evaluate the response options and decide on a specific response for enactment upon the basis of the information that they have processed. It is proposed that individual differences in the different processes of social cognitive processing lead to different behavioural responses.

Past research studies found that individuals with HFASD make more mistakes in the comprehension and analysis of social situations than their typically developing (TD) peers [2]. Subjects with HFASD had difficulties identifying problems within conflict situations when asked to evaluate hypothetical social situations. In addition to the social perception procedures of encoding and interpretation of social information, the strategies they adopted to cope with social problem situations differ from those of their TD peers. Research studies found that individuals with HFASD can generate just as many solutions to a problem as TD individuals but that the nature of the solutions differs [3].

2.2. Encoding of social cues

The encoding of emotion is pertinent to assessing a social situation. The dysfunction in identifying and processing others’ emotions is thought to be the major cause of fragmented communication and social interaction in individuals with HFASD. In visual discrimination of facial expressions, individuals with HFASD showed no significant difference from their TD peers in their ability to recognize the six basic emotions [4]. Individuals with HFASD, however, failed to recognize the crucial parts of the social environment, such as eyes on a face [5]. In a meta-analysis study, deficient encoding skills were consistent across studies with individuals with HFASD recalling fewer information units and adding more extraneous information that...
was not originally the core message in the social vignettes [6].

2.3. Emotion recognition

The inability to discriminate level of emotion has been shown cognitively in a fMRI study of the amygdala, subjects were shown pictures of people expressing a varying degree of emotional intensity such as fear. The amygdala activation in participants with HFASD was significantly lower than that of the control group. The varying level of fear in pictures did not alter the activation in participants with HFASD, unlike the control who exhibited an increasing degree of activation with increased fear intensity [7]. This lack of emotional regulatory discrimination may explain why individuals with HFASD struggle with recounting social scenarios accurately, as they do not process the emotion accurately to start with.

2.4. Social reasoning

It is the interpretation of the situation which determines how an individual will solve a social problem. Research on Theory of Mind has consistently found individuals with HFASD to score lower when compared to TD individuals. This has a direct influence on their ability to empathize as the lack of understanding to what is happening in social context prevents the social cognitive processing of social judgment and problem solving. This lower sensitivity to contextual cues among individuals with HFASD seemed to lead them to misinterpret peers’ social intentions and the situation’s outcome as either ‘black or white’. Klin’s [8] research found that individuals with HFASD tended to perform better on explicit tasks that can be reduced to a “close domain” problem-solving situation as compared with more spontaneous or “open-domain” situations. In contrast, their TD peers seemed to be more able to differentiate the social cues and corresponding social intentions into degrees of intensity. Thus they can generate more possible solution outcomes whereas the individuals with HFASD produce significantly less possible solution outcomes to the social problems presented [9].

3. Method

3.1. Development of social videos

Based on the social information processing framework, the Social processing schedule (SPS) was developed adapted after the Social Problem Solving Test (SPT) [10]. It consists of 12 video vignettes with a structured interview schedule and a social processing rating scale. The script of video vignettes was newly written such that the content and language used suit the local Hong Kong Chinese context. The original SPT videotaped vignette consisted of two parts: the presentation of the social problem and the solutions of problem solving. The first part of SPT presents the social problem via each video vignette. The second part of the SPT involves the enactment of three solutions to the problem. The newly developed SPS only presents the first social problem part of the videotaped vignette leaving the solution part for the participants to figure out by themselves in the open-ended questions at the structured interview.

3.2. Development of structured interview schedule

Following the viewing of each one-minute long video vignette of social situation, the participant was interviewed on a number of questions which can further be grouped into six categories of social cognitive processes: (1) visual encoding of social information, (2) auditory encoding of social information, (3) perception of social context, (4) emotional recognition and social reasoning from own perspective, (5) awareness of others’ emotions and thoughts, and (6) anticipation / prediction of impact of own behavior on others’ emotion. The interview was audiotaped and its content was transcribed into texts which were analyzed according to the six dimensions.

3.3. Development of social processing rating scale

Based on the interview data, the interviewer further rated each subject on the level of social processing according to the six dimensions. Questions were posed on a 3-point Likert scale. For all items, a lower score represents a lower level on the social processing; and a higher score indicates a higher level.

3.4. Research objectives

Since the SPS was newly developed, its content validity and psychometric properties remain yet to be known. So the pilot study aims to investigate its content validity.

3.5. Participants

The data for the current study will be drawn from two groups of subjects: 10 school-aged individuals with HFASD and 10 control TD subjects. The two groups are comparable in terms of age, gender, educational level and socioeconomic status of parents. The inclusion criteria include IQ scores in
the normal range. All participants are screened for exclusion criteria (dyslexia, epilepsy, language deficits and any other medical, neurological or psychiatric conditions) by self-report prior to taking part in the study.

3.6. Content validity

The content of the video scripts was reviewed two times by four experts. Initially, a clinical psychologist and a teacher gave their verbal evaluation. Then the revised scripts were reviewed by a social worker and a learning support teacher. Based on their written feedback, the scripts were revised. Based on the finalized scripts, 12 video vignettes were produced.

Using the SPS and its rating scale, the 12 videos were piloted on the two groups of participants. Seven videos were further chosen from the 12 videos. The rating data will be analyzed for their inter-rater reliability.

9. Implications for future study

Once evidence of content validity is found, the data will undergo Rasch analysis. The software used to conduct the Rasch analysis will be Winsteps version 3.7 [11]. Differential item functioning (DIF), which refers to differences in the functioning of items across groups, will be adopted for data analysis. DIF analysis serves to check construct equivalences across groups and to examine whether different groups have a different interpretation of or perspective on the items [12]. DIF exists when an item shows different item difficulties for different groups. As a rule of thumb, a difference equal to or larger than 0.64 logits [13] and with statistical significance (p < .05) will be regarded as a sign of substantial DIF.

10. Impact of study

Once the SPS is found to be valid and reliable for assessing social processing, it can be applied in future studies such as for the social cognitive processing assessment of individuals with HFASD. Knowledge generated from these kinds of studies will contribute to our better understanding of the complex social cognitive processing deficits in individuals with HFASD in the psychological field. Ultimately this also may bring about a long-term impact on the advancement of intervention outcomes for individuals with HFASD in both the educational and clinical fields.

10. References


Tactile Adaptation of a Painting for Visually Impaired People Based on Information Layering

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Abstract

This work in progress addresses a well-known issue of creating a reproduction of a two-dimensional artwork for tactile perception. Over the last decade, the process of tactile reproduction was greatly improved with the help of technologies like 3D scanning and rapid prototyping. 2D artworks (paintings or drawings) still require a stage of adaptation which is a challenging process that can't be completed automatically.

Aim of the project was to create a tactile reproduction of a “Stolen kiss” painting by Jean-Honore Fragonard. This artwork contains several layers of information: pictorial level (what is happening), symbolic layer (what is means) and aesthetic layer (how the image is organised in terms of composition and color).

Based on this division the research proposes separate approaches for conveying meaning, symbolic associations and composition of the artwork to visually impaired people. We argue that by creating separate adaptations for different levels of information with the help of both manual and automated techniques it is possible to achieve a more profound, diverse and meaningful experience of the adapted artifacts.

1. Introduction

This work in progress addresses a well-known issue of creating a reproduction of a two-dimensional artwork for tactile perception. It is aimed at bringing the cultural heritage of two-dimensional art closer to blind and visually impaired people through creation of assistive artefacts.

Over the last decade, the process of tactile reproduction was greatly improved with the help of technologies like 3D scanning and rapid prototyping. 3D artworks (sculpture, architecture or furniture) can now be replicated via digital fabrication processes, but 2D artworks (paintings or drawings) still require a stage of adaptation to transform them into volumetric objects. This stage presents a significant challenge for researchers as the criteria for translation of visual images to tactile language are still incomplete, fragmented and varied over the World. [3]

This challenge is tackled by researches in different ways: Reichinger, Maierhofer and Purgathofer developed a computer-assisted workflow for the creation of tactile representations of paintings which uses high-resolution images of originals to generate data suitable for rapid prototyping machines to produce the physical touch tools. [2].

Volpe and colleagues describe four possible alternative computer based methods for semi-automatic generation of tactile 3D models: tactile outline, texturised pattern, flat bas-relief and bas-relief. These methods also utilise RGB digital data of original paintings. [3]

A Practice Report by Krivec and colleagues proposes another strategy of tactile adaptation of the painting: the process included three stages of manual tracing and adaptation of original artwork with subject interviews conducted on each stage. [1]

This short background overview suggests two approaches to tactile adaptation, an automatic (or semi-automatic), where computer algorithms and image digital data are used, and a manual, where expert and subject evaluation is involved. Although computer based algorithms allow to create a 3D representation from any image without a time-consuming manual process, the resulted adaptation doesn’t target visually impaired people whose needs go beyond possibilities of automatic generation.

Aim of the current project was to create a tactile reproduction of a “Stolen kiss” painting by Jean-Honore Fragonard (Figure 1). It didn't target at developing a universal method for same kind of tasks and therefore a considerable amount of attention was drawn to specific features of the painting and their careful representation for tactile perception.
Fragonard created this painting in the late 1780s as a continuation of his series on Kisses. The painting captures a perfectly frozen moment in time: two lovers caught by the spectator in the act of stealing a furtive kiss. At first glance, the painting create a light impression of the rococo style. But a deeper analysis can reveal a lot of hidden symbolism, which creates a rich narrative beyond visual image.

2. Methods

To properly translate an experience from the painting to a visually impaired person, an art criticism investigation was made. It revealed that the artwork in question contains several layers of information: pictorial level (what is happening), symbolic layer (what is means) and aesthetic layer (how the image is organised in terms of composition and color).

Following example characterises a symbolic layer of the painting: main character (a lady) is depicted in a room that has two doors (one on the left and other on the right), both of which appear with echoing openings. It is a visual metaphor of her dilemma and choice between risk and safety.

In the aesthetic layer, the composition itself becomes a source of narrative: a very long diagonal line that starts from characters' faces and ends with lady's wrap is a descending line, hinting to a depressing attitude that the author wanted to convey. Keeping in mind that the painting was created in a short period before the French Revolution, one might see a designation at a forthcoming end of the bourgeois époque.

Based on this division the research proposes separate approaches for conveying meaning, composition and symbolic associations of the artwork to visually impaired people. We argue that by creating separate adaptations for different levels of information using both manual and automated techniques it is possible to achieve a more profound, diverse and meaningful impression from the adapted artifacts.

3. Results

During the work several types of adaptations were developed:
- relief-printed album with voice guidance and Braille font (Figure 2),
- laser-cut movable set (Figure 3),
- tactile panel with natural textures (Figure 4),
- algorithmic visualization of light and dark shades (Figure 5).

At present, each artifact is carefully documented in terms of methodology and modifications applied to adapt it for tactile experience.

These artifacts were presented to a group of visually impaired people and a positive response was received. Current stage of the work requires conducting further individual interviews to determine how exactly each artifact contributes to a deeper understanding of a specific information layer of the original artwork.
3. Conclusion

Although developed adaptations require further testing and do not yet present a transferable workflow for other two-dimensional paintings, the idea of reproducing different layers of information in separate mediums seems valuable as it enables people to use their imagination to assemble these parts into a single, more coherent experience.

4. References


A Guide to Cutting-Edge Assistive Devices: Successes and Challenges

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Abstract

Recent technological advancements have resulted in major advances in the development of robotics and other assistive devices to improve patients' function and quality of life. The objective of this study is to provide an overview of cutting-edge assistive devices that are or will soon be available to patients with physical disabilities. For individuals with stroke or spinal cord injury, wearable exoskeletons and robotic limbs may offer hope of restoring mobility. Many of these mobility devices use miniature motors and hydraulics controlled by microprocessors to amplify the wearer's muscle strength. Features of some of the current and pipeline devices are described. Practical challenges of the exoskeletons for everyday use include the weight of the device, cost, and social acceptance. With over 300 million individuals with visual impairment worldwide, there is a large unmet need for visual neuroprosthetic devices. The first bionic eye was approved by the U.S. FDA in early 2013 for individuals with retinitis pigmentosa. An emerging neuroprosthetic technology bypasses the optic nerve and delivers electrical signals directly to the brain’s visual cortex. Some of the biggest challenges of this neurovisual device include the resolution of the images as well as potential surgery-related issues. In conclusion, tremendous strides in technology have been made in the field of biomedical assistive devices. Successes and challenges of some of the latest and emerging assistive devices are discussed.
Session 9: Sustainability, Policy and Leadership

The Relationship between Entrepreneurship and Competitive Advantage in Arab Universities: An Analytic Study
(Author: Sultan GH Aldaihani)

Early Childhood Provisions Outlined Under Individuals with Disabilities Education Act (IDEA) Mandates
(Authors: Kourtland R. Koch, Azar Hadadian)

Inclusionary Leadership for Fast-paced Change: Exploring Approaches that Worked
(Authors: Linda Dudar, Shelleyann Scott, Donald E. Scott)
The Relationship between Entrepreneurship and Competitive Advantage in Arab Universities: An Analytic Study

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Abstract

The aim of the current study is to identify the effect of entrepreneurial activities on enhancing the competitive advantage in Arab universities and to determine the different strategies that can be used in enhancing the role of entrepreneurship activities in higher education institutions. In order to achieve the current objectives, the researcher depends on an analytic approach to analyze the current situation related to higher education institutions and identify the role that might be played by entrepreneurship in enhancing the quality of education and providing a competitive advantage that help them cope with the level of education provided by institutions in the developed countries. The results of the study showed that there are many problems that higher education institutions suffer from such as lack of quality of services, imbalance between supply and demand and lack of research and innovations, these problems in fact weaken the base of competitive advantage and as a result there is a need to enhance creativity and innovation in universities through employing entrepreneurship technique which requires in fact involving all stakeholders inside and outside higher educational institutions and providing training for undergraduates to help them identify the importance of entrepreneurial activities.

1. Introduction

During the current era characterized by competitive markets, entrepreneurial activities have become of utmost importance for all sectors, especially for the higher education sector in which entrepreneurial initiatives are seen as tools for enhancing innovation and creativity among students. Innovative and creative abilities can lead to increase the levels of productivity and improve the quality of services which have direct impacts on helping educational institutions to have competitive advantages which make them able to compete in contemporary global markets.
a particular industry [20]. According to Haan & Yan [21], competitive advantage in higher education means many things among them are quality of education and/or research, reputation /brand /image/ attractiveness, unique selling point, being different, growth of student numbers, quality of facilities and services, ranking position and international partnerships/cooperation. Al-Awadh tried to identify on how organizations achieve and sustain competitive advantage and the possible barriers to this advantage in Kingdom of Saudi Arabia, the findings revealed that Barriers to competitive advantage are conventionalized in terms of "strategic coherence" mode In addition, 'organizational coherence' needs to be built, involving the structure of internal and external elements affecting an organization's ability to achieve its competitive advantage [4].

2. Statement of the Problem

Today's organizations have to deal with dynamic and uncertain environments. In order to be successful, organizations must be strategically aware. They must understand how changes in their competitive environment are unfolding. They should actively look for opportunities to exploit their strategic abilities, adapt and seek improvements in every area of the business, building on awareness and understanding of current strategies and successes. Organizations must be able to act quickly in response to opportunities and barriers [29].

Higher education has been challenged to continue improving the quality of academies; increasing participation by all sectors of society and by a new set of cooperative relations and partnerships between higher education and all stakeholders. Colleges and universities more concerned than others, so they must become more innovative leading to quality institutions of knowledge creation, and being to increasingly higher standards by the many groups to which they provide programs and services [35].

The GCC countries face a major problem in that their existing skill base for workers is low by world standards, and relatively little research, development, and innovation are occurring in the region. Data from the Global Competitiveness Index indicate that the region significantly lags behind in terms of education and innovation. Enrollment rates in educational institutions remain low on average, particularly at the university level, and the quality of education is in need of upgrading. In the innovation category, all countries with the exception of the United Arab Emirates and Qatar rank in the lower half of the overall sample of 128 countries [13].

Low levels of competitiveness and innovation, lower enrollment rates at the university level are real indicators of risk and danger, especially within the current era marked by global competitiveness among all educational institutions around the world. The statement of the problem revolves around the need to enhance competitive advantages in Arab universities in both shareholder and stakeholder values depending on some effective strategies such as entrepreneurial endeavors that make educational experiences unique and are supposed to enhance innovation and creativity within higher education institutions which in turn help in achieving competitive advantage within the age of globalization that depends merely on global competition.

3. Objectives of the Study

The main objectives of the current study are to identify the role of entrepreneurship in achieving competitive advantage in Arab Universities and to determine the different strategies that can be used in solving the current educational problems and enhancing the role of entrepreneurship activities in higher education institutions.

4. Significance of the Study

The current study is gaining its importance and significance from being the first study -- according to the researcher's knowledge- that aims at shedding the light on the relationship between entrepreneurship and competitive advantage in higher education in Arab countries. The analysis and recommendations of the current study can be used by policy makers, educational researchers and other stakeholders to enhance the quality of educational services and ensure that university graduates from Arab countries have the ability to cope with the changing demands of global markets.

5. Methodology of the study

The researcher will depend on an analysis of the literature and previous studies regarding competitive advantage and its economic benefits. Then, an analysis of the nature of entrepreneurship, its importance and the role it plays in higher education institutions will be reviewed in an attempt to understand the nature of the two variables and the relationship –if any- between entrepreneurship and competitive advantage within the scope of Arab universities.

6. Literature Review
The constant changing of the internal and external environments of an organization suggests that the stronger the firm, the longer it can sustain a superior level of performance compared to competitors. A known important variable that determines a firm's success and viability in a market is its competitive advantage. It can be argued that each organization within any industry is expected to have some advantage over its competitors in order to maintain its position over time [4].

Competitive advantage is of unique features and capabilities that enable an organization to provide better services (value) for customers compared to competitors. Since these features and capabilities are mainly represented in intangible assets so, the efficient management of assets (intellectual capital) in modern organizations is considered a condition of survival and continuity of operations. In other words, modern organizations to gain a competitive advantage should have efficient relationships with external and internal interests in the organizations as well as institutionalizing personnel knowledge as a part of organizational system [3].

The ability to develop a sustained competitive advantage today is increasingly rare. A competitive advantage laboriously achieved can be quickly lost. Organizations sustain a competitive advantage only so long as the services they deliver and the manner in which they deliver them have attributes that correspond to the key buying criteria of a substantial number of customers [14]. There is a strong relationship between competitive advantage and other variables within the university environment such as quality of services. According to Assaf et al., improve quality requirements and achieve high quality of service for competitive advantage are considered among the most important factors that can help in improving the quality of services in Saudi Arabian Universities [9].

Greenidge showed that competitive advantage development requires an environment in which innovation and entrepreneurship are encouraged and supplemented by the institutional and management resources [20]. The successful creation of such an environment will require initiative and collaboration at the national, regional, and transnational level. As entrepreneurial universities are drawing the attention of many policy makers and researchers in developing countries, the need to study this generation of universities becomes more and more important. Moreover, one of the most important issues in these studies is considering the contextual and distinguishing elements of these countries. One can say that more indigenous entrepreneurial university conceptualizations could help the policy makers and researchers in achieving their goals [17].

There are many techniques that can be used to enhance and sustain competitive advantage in universities among them is employing entrepreneurship activities within higher education institutions. Entrepreneurship has been praised as the engine for firm creation and economic growth. Although various perspectives of entrepreneurship have been discussed, such as opportunity discovery, resource mobilization, and firm organization, the ultimate manifestation of entrepreneurial spirit is new venture creations [11]. Governments and policy makers have become keenly aware of the economic developments benefits that are derived from the establishment and growth of entrepreneurial endeavors [28]. In a competitive environment, entrepreneurship is an essential element in the long-range success of every business organization, small or large, new or long established [18].

Entrepreneurship refers to an individual’s ability to turn ideas into action. It includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and it provides a foundation for entrepreneurs to establish a social or commercial activity (Entrepreneurship Unit, 2012). The definition of entrepreneurship places great emphasis upon identifying an opportunity for innovation and change, such as setting up a new firm, possibly in a niche market not currently served or served insufficiently, creating a good or service that is valuable (exchangeable for money), having, or developing the capacities (skills, abilities and aptitudes) necessary for success and being committed to taking up the opening – a form of ‘dispositional autonomy’ (Moreland, 2012).

The role that entrepreneurship plays in the socio-economic development of a country is well acknowledged. As a result, a large number of programs to support entrepreneurship to fulfill its economic and societal roles designed by the governments and international organizations. However, due to the perception that the concepts of entrepreneurship and youth entrepreneurship are interchangeable, youth entrepreneurship remain somewhat unaddressed in many countries while considerable attention has been made upon entrepreneurship in general (Dash, 2012). Gibb & Hannon (2006) showed the importance of entrepreneurship from the role it can play in shaping the future competitive position of western economies.
Universities, especially technical universities, can be seen as engines of scientific invention and technological development. Invention and technological development can be transformed into innovation. Entrepreneurship is important as a diffusion mechanism to transform scientific inventions into new product and service innovations. Universities play a key role in promoting the talents of students, graduates and researchers. What distinguishes institutions of higher education from other institutions in society is their role in creating knowledge and producing high-potential graduates and researchers [33].

Entrepreneurial programs and modules in universities offer students the tools to think creatively, be an effective problem solver, analyze a business idea objectively, and communicate, network, lead, and evaluate any given project. Students feel more confident about setting up their own business as they can now test their own business ideas in an educational, supportive environment. However, the benefits of entrepreneurial education are not limited to boosting start-ups, innovative ventures and new jobs. Entrepreneurship is a competence for all, helping young people to be more creative and self-confident in whatever they undertake (ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL, 2008).

In order to enhance entrepreneurial activities that help in achieving competitive advantage, Ferreira at al. (2006) suggested a set of specific incentives for developing new entrepreneurial initiatives (for example, merit prizes, scholarships grants, and abolition of municipal taxes) should be promoted by the relevant entities. Moreover, the launching of a MBA, targeting the creation of technological businesses, should be assured by the university. The Gulf Organization for Industrial Consulting has identified the importance of such entrepreneurial programs and as a result has developed an entrepreneurship education program in collaboration with the Tepper School of Business at Carnegie Mellon University brings together entrepreneurs, governments, and business managers in the field of biotech, information technology, and new ventures from all over the GCC to evaluate best practice examples in developing technology-based projects. The objective of the program is to provide the content and background required for starting and building new businesses and ventures. The program also places a special emphasis on introducing the participants to entrepreneurial thinking, idea generation, opportunity recognition, action, and execution via competitive positioning of products and services with a sustaining competitive advantage [5].

Entrepreneurial projects take place within the university can be a real experience for students through which they can learn how to effectively plan and manage their projects in order to achieve the desired objectives. This experience is of great importance as it helps students to identify reasons behind success or failure of their projects, so we can consider these projects as training tools used to prepare students to face the challenges of the external environments and the increasing demands of the international markets.

7. Analysis of Current State in Arab Universities

The destiny of any nation begins in its classroom where young people are equipped with knowledge and skills to lead the nation. Higher education is the corner stone in development where work force is trained to lead the social, economic, political and cultural change. In such a competitive global economy the human capital is the most valuable asset. Higher education institutes are training units, where labor force is made. These institutes are also incubators of scientists and technologists where researchers are qualified to make the scientific and technological change (Issa & Siddiek, 2012).

Higher education in Arab world suffers from many challenges and obstacles that prevent it from competing on the international levels, among these obstacles are inequitable access to higher education, the trade-off between increasing access and improving the quality of education attainment and the third significant challenge is to have higher education produce a mix of educational outcomes that is compatible with the demands of the labor market and the national aspirations for social, political, and economic development (Acedo, 2011). These challenges lead to the inability of the higher education institutions to achieve a good competitive position to meet the standards and requirements of the global higher education.

There are many evidences of the lack of competitiveness in higher education systems in many Arab countries, for example, Egypt’s rank in higher education and training has been deteriorating over time. Both quantity and quality of higher education have been worsening over time. Egypt’s rank in terms of higher education quality declined from 80th out of 114 countries in 2005/06 to 128 out of 139 in 2010/11, whereas the quantity of education declined from 57th out of 114 in 2005/06 to 88th out of 139 countries in 2010/11, as a result of the reduction in enrollment rates for both secondary and tertiary education [26].
In Egyptian universities, Sheta revealed that the absence of a profound entrepreneurial culture in higher education has presented the challenge of not having the necessary critical mass of faculty members to teach entrepreneurship courses [31]. Also, the prevailing teaching methodologies hinder creative thinking and individual initiatives, and the binding laws and regulations of universities prevent practitioners from teaching practical courses. These factors have all contributed to the degrading status of entrepreneurship education.

Alkhazim showed that Higher education in Saudi Arabia faces three challenges represented in limitation of places, depletion of resources, and quality measures [6]. Some measures have been initiated to relieve pressure on Saudi higher education, including establishing private colleges, new postsecondary diploma programs, and setting up a higher education fund. Real organizational and financial restructuring is the neglected part among these processes. The issue of competitiveness is important and essential to improving higher education quality and quantity.

Pheng (2012) showed some challenges that face Qatari higher education such as competition amongst other international branch universities, global levels, Supply may exceed demand, and schools therefore cannot follow through with plans and goals for the universities. The biggest problem that Qatar leaders face today is that of determining what kinds of initiatives will best broaden and strengthen Qatari participation in post-secondary education. Individual initiatives already carried out have paved the way for establishing a range of post-secondary educational opportunities in Qatar, but these initiatives have not been subjected to a broad strategic review. As a result, the extent to which available post-secondary educational offerings meet Qatar’s current and future economic needs is uncertain [32].

In Jordan, financial resources for higher education are generally tight, and if institutions want to compete regionally, they have to rely on their competitive advantage and have to manage the critical success factor of academic staff [22].

By observing the current status of the higher education in many Arab countries, one can say that Arab countries are in a serious need to concentrate on some issues related to the quality of higher education, entrepreneurship and competitiveness in order to fill the gap between the theoretical content provided in higher education institutions and the practical work requirements represented in the work environment and to balance between supply and demand. Entrepreneurship has the ability to produce graduates who are capable of coping with the requirements of global markets and able to quickly adapt to the changing environments in a flexible and innovative way.

8. Suggested Solutions to Solve the above Mentioned Problems

From the review mentioned above, one can conclude that entrepreneurship is very important within the frame of higher education sector as it helps students to improve their entrepreneurial skills and it is seen as a base for economic development and as a result many countries around the world tend to implying entrepreneurial activities as an essential part of their educational agendas. Arab universities must work on developing the competences of its students and encourage them to engage in entrepreneurial initiatives. Entrepreneurship is seen as the first step in improving quality of education, developing students' skills, enhancing their abilities to translate theoretical ideas into practical actions, increasing educational return and as a result helping academic institutions to achieve competitive advantage.

Policy makers in Arab universities can play pivotal roles in improving the performance of entrepreneurship initiatives that offer training for undergraduate students, such training can be immensely helpful during the early stage of the entrepreneur’s business initiatives so that they can stand on their feet, grow, and play a significant role in nation’s economy in years to come [5]. These training sessions are supposed to be very helpful taking into account that many students have positive attitudes towards these initiatives. Iqbal et al. investigated the entrepreneurship perception and entrepreneurship intention of Saudi university students and to find out whether they are ready for the market challenges and risk taking which are part of entrepreneurial activities [23]. The study findings indicated the satisfying level of students’ intentions on entrepreneurship and their willingness to put their efforts in entrepreneurship activities.

Organizational culture is an influencing factor in spreading the spirit of Entrepreneurship among university students. Although the creation of an entrepreneurial culture in a university environment is a complex task and a long-term process that requires the efforts of many dedicated individuals [8], Arab universities can initiate awareness campaigns directed to both academic staff and students to make them able to understand the importance of entrepreneurship in higher education environments and its value and return on the country economy and on its competitive advantage.

Educational supervisors should regularly evaluate areas of strengths and shortcomings in
Arab universities through need analysis and periodic survey studies to identify the nature of entrepreneurship initiative applications, determine the most important factors that may hinder its activation and work out to find effective solutions to current obstacles. Entrepreneurship should be a part of university curriculum regardless of specialization to encourage creativity and innovation among students.

Partnerships and cooperation among different stakeholders may be beneficial so, it is important to involve stakeholders inside and outside of higher education institutions. For example, entrepreneurs and entrepreneurial leaders acting as role models for students should be an essential part of entrepreneurship modules and programs. If we want young people and students to enter the business world and entrepreneurship it is necessary to involve business people and entrepreneurs in the academic education process [33] Real successful and unsuccessful stories of enterprises and entrepreneurs who have initiated entrepreneurship activities can be very useful as they help students to understand the critical factors that facilitate or inhibit the implementation of such initiatives.

9. Conclusion

Entrepreneurship can be seen as a driving force used to enhance competitive advantage in all sectors - public or private - within different countries around the world. It brings innovative and creative ideas to create a sustained educational system of high value. Globalization, information and communication technology and the change from traditional societies to knowledge based economies and knowledge based societies result in more competitive, opened and globalized markets that require organizations of higher levels of productivity and high service quality to enable them to take a prestigious position in the current economy and effectively and efficiently participate in enriching and developing the current higher education system through innovative strategies that can be implemented to achieve unexpected goals.

10. References


Early Childhood Provisions Outlined Under Individuals with Disabilities Education Act (IDEA) Mandates

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Abstract

Prior to 1986 the United States Congress realized that there was an urgent and substantial need to a) enhance the development of infants and toddlers with disabilities, b) reduce educational costs to our society by minimizing need for special education services after infants and toddlers with disabilities reach school age, and c) provide early intervention services that enhance the capacity of families to meet the special needs of their young children with disabilities.

As a result of these initiatives, the U. S. Congress made an amendment to the earlier law (P.L. 94-142) in 1986. Within the provisions of the new law (P. L. 99-457), the U.S. Congress mandated special education and early intervention services for children ages 3 – 5. Funding was provided to each state for the initial planning and development of a particular plan as to how they were going to implement the required provisions of this federal statute for young children with disabilities [4].

As a result, each state was provided funding and was given five years to determine how they were going to provide early childhood special education services. At this same time the U.S. Congress provided additional incentives for those states expressing a willingness to provide early intervention services for children ages 3 – 5. Funding was provided to each state for the initial planning and development of a particular plan as to how they were going to implement the required provisions of this federal statute for young children with disabilities [4].

In regard to children from ages 3 to 5, each child had to be identified and referred to be evaluated for the determination the eligibility for special education services. One main criterion for eligibility was that each child had to be labeled with one specific category of disability under the previous federal/state law. These categories included learning disabilities, developmental disability, brain injury, hearing impairment, visual impairment and communication disorder. However the notion of labeling a child as young as three years of age created a lot of debate among experts within the field. The center of debate was both the misidentification of children and the labeling of young children with a specific disability label. Later, the U.S. Federal Government made an amendment under IDEIA 2004 which allowed each individual state to use the developmental delay (DD) label for children ages 3 to 9 or any subset of that age range, including ages 3 through 5 [2].

In regard to children ages 0 to 3, the US Federal Government allowed each individual state to identify children; however, the state did not have to use a specific category or label in order to provide early intervention services. Under the early intervention services, a child with an existing diagnosed physical or mental condition that has a high probability of resulting in a developmental delay qualified for early intervention. Other children who demonstrated a delay, as determined by each state, may also be eligible to receive early intervention services. Therefore, each individual state had the freedom of how to define what constituted a developmental delay label for ages 0 – 3. In addition to a developmental delay label, the U.S. Government created at-risk categories as options for the states to serve young children from birth through 2 years who showed at-risk conditions for becoming developmental delayed later in childhood. However, they did not have the freedom to use the DD label for those children ages three and older (Georgetown University Center for Child and Human Development [3]).
Issues Related to Identification and Labeling Under Parts B & C

Since the U.S government has allowed each state to use the DD label, for children ranging in age up to age 9, this has created a lot of variation from one state to the next. Some states have selected quantitative criteria, such as standard deviation, while other states have used criterion-referenced tests, with a set determination of what percent of delay must be present. Other states have implemented the criteria of developmental age, while specifying a 20% to 50% range of delay. Still additional states have chosen to employ informed team consensus with professional judgment or informal clinical professional judgment. A similar situation applies to an at-risk definition because each state has the option not only to define what at-risk means in their state, they also have the option to offer the necessary services to that specific population of babies. Currently only six states have elected to identify and provide these services to young children under the age of three. The IDEA 2004 provisions of using a DD label has created issues such as over/under identification, children with low incidence disabilities, appropriateness of norm-referenced tools and costs involved in providing necessary services [1].

As we are making additional observations and collecting more data, we are predicting more changes that may likely bring additional amendments both at the federal and state levels. The dilemma is that final decisions may be mostly based upon funding availability and not on best practices. As a result, we will continue to see a discrepancy of services across the states until we will have a clear mandate from the federal government. It is understood that within the United States each state has a lot of authority to make decisions in regard to education. However, in other countries, a central government could dictate educational related policy and funding across the country.

References

Inclusionary Leadership for Fast-paced Change: Exploring Approaches that Worked

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This paper presentation outlines the findings of a doctoral study that examined how leaders enacted rapid change in their schools, specifically related to inclusionary efforts. The first case described the leadership approach one principal took in effectively integrating all special needs children into mainstream classes along with the provisions of the supports needed for students, staff, and parents in order for this initiative to be successful. This leader was required to enact this change in one year. This case describes her successful change agency and explores her approach to overcoming resistance from the community and teachers. The second case described in this paper examined a second fast-paced initiative which involved a principal’s mandate to integrate English Language Learners into mainstream education. We discuss the leadership approach she took to achieve successful integration in one year including her strategies, relationships with stakeholders, and the supports that made a difference. This paper examined the pressures leaders were under to make the changes happen, as well as the strategies and approaches these effective principals used to enact these fast-paced changes. Our objective in this paper is to describe successful change agency and distill the effective strategies leaders can use to enact positive change for special needs students. Our motivation is to provide support and advice to leaders and their stakeholders in making changes that can facilitate enhanced student outcomes and positive classroom environments that promote learning.
Session 10: Global Issues in Education

Nutritional Status of Primary School Pupils in Ekiti State, Nigeria
(Authors: Adegun J. A., Alebiosu E. O.)

A National Low Vision Screening by the Namibian
(Authors: Nuusiko Antsino, Frans Moolman)

Education in a Postmodern Society
(Author: Nataliya Favennec)
Nutritional Status of Primary School Pupils in Ekiti State, Nigeria

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Abstract

Inadequate nutrition for children is a major challenge in developing Countries. The study investigated the nutritional status of primary school pupils in Ekiti State. It also investigated the extent to which the location of the schools and socioeconomic status of parents influenced the nutritional status. The study employed the descriptive survey research design of the ex-post facto type. 415 pupils constituted the sample from public and private primary schools using simple and stratified random sampling techniques. Anthropometry measurement of height and weight was involved. Frequency counts, percentages, mean standard deviation, student t-test, analysis of variance and scheffee Post-Hoc analysis were used to analyse the data with 0.05 as level of significance. The study showed that the nutritional status of the pupils was lower than accepted average. There was no significant difference in the nutritional status of primary school children in the rural and urban area of Ekiti State. But there was a significant difference in the nutritional status of children in relation to the socioeconomic status of their parents. Family should ensure adequate supply of food to meet the needs of children. Food security should be promoted by government in the country in order for children to attain universally accepted good nutritional status.

1. Introduction

Food is one of the basic requirements of human beings for effective living. Adequate intake of good nutrients in infancy and childhood is very important to realization of growth potentials of children. Proper nutrition provides the needed strength, protection against various disorders and helps in quick recovery from illness. The importance of good nutrition in the life of individuals cannot be overemphasized. But [10] discovered that approximately 790 million people in the developing world subsist on diets that are deficient in energy, about 200 million children suffer from malnutrition and 2 billion people suffer from a variety of micronutrition deficiencies.

Nutritional status is a phenomenon that presents the state of health of a person based on the intake and utilization of nutrients for real biological growth. [1] observed that primary school children are exposed to high-risk of dietary deficiency’s due to ignorance, poor socioeconomic status of parents. Also it has been observed that nutritional deficiency is common among rural and urban school pupils in Ekiti State. Nutritional deficiencies can be found in rural as well as urban population in Nigeria. People’s income levels partly determine whether they eat an adequate diet or not. School pupils in rural communities might be faced with problems of eating what is available for them rather than what is adequate [6].

Nutritional status of an individual is often the result of many factors. It is influenced by the adequacy of food intake both in quality and quantity and also by physical health of the individual [9]. Nutritional status is measurable for individual, group of people as such for populations. There is a dearth of reliable data in this area of study in Ekiti State hence the determination of the nutritional status of primary school pupils in Ekiti State. This might be of immense use to primary school heads and the government in providing and promoting adequate nutrition among the pupils in the state. Therefore the study investigated the nutritional status as well as the influence of the location and the social economic status of the parents of primary school pupils in Ekiti State.

Hypotheses

1. There is no significant difference in the nutritional status of primary school children in the rural and urban area of Ekiti State.

2. There is no significant difference in the nutritional status of children from lower and upper economic classes.

2. Method
The descriptive research design of the ex-post – facto type was used in this study. 415 primary school pupils with the age range of 6-10 years drawn from primary II – primary VI, consisted the sample for the study. The selection involved simple and stratified random sampling techniques. The data Retrieval format was used to collect information on demographic variables. The equipment used was the floor type model Z-T/60 stadiometer which measured the anthropometric variables of Height and Weight for the calculation of the Body Mass Index (BMI) WHO (1996).

2.1. Anthropometric measurements

Height: The pupils stood erected with both feet placed on the drawing surface of the flat form of the stadiometer without shoes, standing upright with arms by the sides, looking straight ahead while the height was recorded to the nearest 0.5cm.

Weight: The pupils were asked to remove their shoes, heavy clothes and any other heavy items. The pupils stood upright with their arms hanging loosely at the sides and their eyes looking straight ahead. The measurements were recorded to the nearest 0.1kg.

Data Analysis

The data collected were analysed using both descriptive and inferential statistics. The frequency counts, percentages, mean and standard deviation consisted the descriptive statistics while inferential statistics employed were student t-test and analysis of variance and all the hypotheses were tested at 0.05 level of significance.

3. Results

Table 1. Descriptive statistics of Nutritional Status of Primary School Pupils in Ekiti State

<table>
<thead>
<tr>
<th>Nutritional Status</th>
<th>F</th>
<th>%</th>
<th>BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malnourished</td>
<td>205</td>
<td>49.4</td>
<td>Below 20.00</td>
</tr>
<tr>
<td>Normal</td>
<td>189</td>
<td>45.5</td>
<td>(20.00-25.00)</td>
</tr>
<tr>
<td>Overweight</td>
<td>19</td>
<td>13.7</td>
<td>25.00-30.00</td>
</tr>
<tr>
<td>Obesity</td>
<td>2</td>
<td>0.5</td>
<td>(above 30.00)</td>
</tr>
<tr>
<td>Total</td>
<td>415</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The results showed that 205 (49.4%) were malnourished, 189 (45.5%) were normal, 19 (13.7%) were overweight while 2 (0.05%) were obsessed. It then implies that the pupils are generally malnourished. They are exposed to inadequate nutrition and the nutritional status is abysmally low. The levels of overweight and obesity are still very low due to this state of under nourishment of the pupils.

Table 2. t-test comparison of nutritional status of pupils in Rural and Urban Areas

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean (BMI)</th>
<th>SD</th>
<th>Df</th>
<th>t-cal</th>
<th>T table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>110</td>
<td>15.85</td>
<td>1.77</td>
<td>414</td>
<td>0.470</td>
<td>1.930</td>
</tr>
<tr>
<td>Urban</td>
<td>305</td>
<td>16.00</td>
<td>3.24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P>0.05.

The result revealed that pupils from urban schools had higher mean score of mean (=16.00;SD3.24) compared to those in rural schools (mean = 15.85, SD = 1.77). The t cal 0.470 is less than t table 1.960. the null hypotheses one is not rejected, which means that there is no significant difference in the nutritional status of primary school pupils in the rural and those in the urban areas of Ekiti State.

Table 3. One way ANOVA summary of Nutritional status of pupils from lower, middle and upper classes

<table>
<thead>
<tr>
<th>Group</th>
<th>SS</th>
<th>Df</th>
<th>Ms</th>
<th>Fcal</th>
<th>F table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>115.068</td>
<td>2</td>
<td>57.534</td>
<td>6.921</td>
<td>3.00</td>
</tr>
<tr>
<td>Within</td>
<td>3433.286</td>
<td>413</td>
<td>8.313</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3548.354</td>
<td>415</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P>.005

The table above showed that the F calculated 6.921 is greater than the table value of 3.00. therefore, the null hypothesis is rejected. It then implies that there is statistical significant difference in the nutritional status of children from the lower, middle and upper classes of socio-economic status.

Table 4. Scheffe post-Hoc Analysis showing the difference in the nutritional status of pupils from lower, middle and upper classes of socio-economic status

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Class</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>114</td>
<td>17.71</td>
<td>Lower</td>
<td></td>
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</tr>
<tr>
<td>175</td>
<td>20.93</td>
<td>Middle</td>
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<td></td>
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<tr>
<td>126</td>
<td>22.19</td>
<td>Upper</td>
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<td>*</td>
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P<0.05

Table 4 showed that there was significant difference in the nutritional status of lower and upper classes. Similarly the mean difference between lower and middle was significant. There existed no significant difference in the nutritional status of pupils in the middle and upper classes of socioeconomic status.
4. Discussion

The study revealed that the nutritional status of primary school pupils in Ekiti State was below the normal. The result indicated that 49.4% of the school pupils are underweight. It showed that almost half of the students sampled were under-fed and their nutrients in-take were food of low nutritional value. It then implies that the nutritional status of the primary school pupils in Ekiti State is below the universally acceptable standard [11]. It is also in line with the submission of [2] that recent national and local surveys have revealed staggering prevalence of under-nourishment among school children and children under five years of age.

[4] Established in their study that underweight and thinness were most prominent in populations of school-aged children from South-East Asia and Africa, whereas in Latin America the prevalence of underweight or thinness was generally below 10%. The location of the pupils in terms of urban and rural areas was a cardinal variable manipulated. The pupils in the urban schools had higher mean value of 16.00+- 3.24kg than of the pupils in the rural areas with mean value of 15.85+- 1.77kg. But the t-test value of 0.0470 was not significant therefore. The result further showed that there was no significant difference in the nutritional status of primary school children in the rural and urban areas of the state. The result negates the findings of [5]who discovered that the pupils in urban primary schools are better fed than those in rural schools. The non-significant result could be due to the fact that Ekiti State is still evolving with no seriously pronounced urbanization. The majority of the place could still be termed to be rural in many facets of life and the level of literacy is somehow even both in the urban and rural areas. This also is not in agreement with [7] who observed that carbohydrates seem to be the choice of school pupils in the rural areas as they eat it always not minding whether they contain the necessary food nutrients needed for growth and development.

Socio-economical status of the parents was found to be a significant factor affecting nutritional status of primary school pupils. The F value 6.921 calculated was significant and the post-Hoc analysis showed significant difference of nutritional status between lower class and middle class while it also revealed a significant difference between lower class and upper class. The results agree with the findings of [3] who discovered that children from low socio-economic status parents perform poorly in schools, due to inadequate nutrition resulting in hunger and lack of concentration. He further ascertained that low socio-economic status of Parents sometime results in malnutrition which in turn makes the pupils dull, impair their concentration, learning ability and lead to marked decrease in scholastic achievements. Also [8] stated that socio-economic status of parents also affects health by influencing access to health care, quality of housing school environment, lifestyle factors such as nutrition and recreation. Children from middle and upper classes are exposed to basis needs of life. Their parents meet their nutritional needs most especially due to better purchasing power, higher level of education generally and in particular better nutritional knowledge. The children look physically better. But most of the parents in the lower economic class in Ekiti State are peasant farmers, artisans, drivers, bricklayers, petty traders with very meagre incomes which invariably affect the nurture and care of their children.

5. Conclusion

Based in the findings of this study, it will be concluded that malnutrition is an health challenge among the primary school pupils in Ekiti State. Also the location of schooling is not an health issue among the pupils and the socio-economic status of parents affects or determines the level of nutritional status of the pupils. These apparently indicate the need for healthy interventions in the nutrition of these pupils for effective living.

6. References


A National Low Vision Screening by the Namibian

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Abstract

Visual screening of rural students is of major concern to developing countries.

First phase: The completion of a simplified questionnaire on low vision was required. Ten questions regarding the criteria for low vision diagnosis and six diagrams to identify selected eye deviations were included. Twenty mainstream schools in the Northern Regions were targeted. Teachers were tasked to identify candidates with a possible eye problem and complete the questionnaires.

Original Data and Results: 242 questionnaires were returned and analysed. The results indicated that 63% of students indicated four or more criteria of visual impairment. The percentage of prevalence for each criteria most evident, was: only 50% of students had previously received medical interventions, 15.8% owned corrective classes, 50% indicated a family member with eye problems, 87% indicated problems related to acuity, 44% recorded a discharge from the eyes, 41% displayed abnormal posture when seated and 22% recorded a dysfunctional head position while seated at a desk. The second phase: The second phase was implemented during 2013 and 2014 when 24 teachers were trained in vision screening- especially in the rural areas of Namibia. This training constituted in a week long workshop where relevant theoretical work was presented in the morning which was followed by a practical session on learners from nearby schools. The aim of the visual screening was to make inclusive education more viable for learners with a vision problem, to give guidance to classroom teachers working with these learners and to register these learners on a national education data base. The results could assist the government in developing policy. This project will result in referral, and early intervention of visually impaired students. The project could potentially be extended into other countries.
Abstract

The education system is in the midst of an adaptation crisis. The traditional approach fails to meet the needs of the younger generation, which grows increasingly resistant to outdated teaching methods. Empirical scientific data and research shows there are considerable benefits in utilizing an empathic pedagogical approach. Exposing students to an empathic learning environment allows for creativity, awakens motivation and renews a taste for learning; it can even reveal previously unrecognized potential. Requiring just personal initiative, any teacher can take this approach and reap the benefits. There is no need to await comprehensive changes from the education system itself. In order to be effective, the education system must be consistent with the society of his time. While society and attitudes have changed, the institution is not regenerated. One wonders about the impact of media, new technologies and social networks on youth attitudes. These factors would guide to the superficial, immediate, and virtual and engender a reflex of "zapping". They also induce a loss of the sense of reality, questioning the boundaries between the virtual and the real. Whereas the effectiveness of the education system is inextricably linked to its ability to stimulate the student's desire to learn, it is essential to seek mechanisms generating interest and involvement of the student.

1. Introduction

This research starts from the observation of an ongoing crisis of French educational institution based on the republican model. By the 1970s, the "conflictualists" sociologists have studied and denounced the mechanisms that make the school a factor of the continuation of social inequality. Previous governments have implemented numerous educational policies often at the expense of consistency and efficiency. The challenges of dealing with a massive system and efficiency of the school. There are indications of deterioration in the school climate as well as recurrent lower academic performance of students, as shown by surveys such as Program for International Student Assessment (PISA). French schools based on modern values at odds with the social environment and loss of efficiency.

We propose to conduct an analysis of the French schools in the light of the paradigm of modernity. French educational institution operates on a system of values inherited from the modern era, characterized by rationality and verticality, (i.e. transfer of knowledge from the top down) the individual is expected to conform to a model. These values, like traditional republican institutions are obsolete and no longer work. However, the postmodern era is characterized by the emergence of a topical horizontality (i.e. learning from your peers and your teacher), a new concept of interpersonal relationships and communication with each other. There is also a resurgence of archaic and sensitive values. These are phenomena characteristic of trends in postmodern societies, influencing attitudes and representations, particularly among young people. Remaining impervious to the new social environment, the Republican school institution is in discordance with the people in which is in charge of training, and thus, becomes inadequate and "unperformant."

Pedagogical transformation began in the 20th century, thanks to the contributions of psychology, including constructivism in the sense of a better mobilization of psychological functions of the individual. From the 1960s, the evolution of pedagogy in theory relies on the work of humanist psychologists who have improved the understanding of the mechanisms of motivation and highlighted the importance of concepts such as self-esteem. These concepts have contributed to educational changes, which have supported research on "process-product" and the reflective practices of teachers. However, it clearly appears that the contributions of psychology and the results of these studies are insufficiently integrated practice in the educational process in France.

The fact remains that educational change is incomplete as the school is not attuned to the social environment. The paradigm theories of Jung applied to education, focused on the archetypal nature of the teacher-student relationship. In addition, we further stress, convergence with theories of imagination. We intend to demonstrate that the proper implementation of an "archetypal" education, leveraging the
sensitivity, intuition, empathy and the "resonance" is a powerful contributor to education. The goal is to seat the connection between student knowledge and enhancement of personal potential. The establishment of such an educational relationship is currently based on an individual approach of the teacher including their own self-analysis in order to improve the transfer of knowledge.

In conclusion, the incorporation of these concepts in the organization of the educational institution would require a thorough overhaul of the educational process, but also the recruitment and training of teachers.

2. Discrepancy between school and postmodernity

The educational world is facing a new challenge. Postmodern thought focuses on living in the moment, and understand our individual desires. This leads to a stronger value of the ephemeral, and a culture more focused on human emotions. It goes against traditional values based on reason, ideologies and hope of better future. These conditions are leading to the development of a youth culture that is diverse, tribal, progressive and based on new technologies instead of the values of older generations.

Compliance with academic standards was once a pawn of success, but now it no longer develops students to their full potential because they are neither stimulated nor motivated by it. In turn, this makes the school no longer accomplish their primary goal anymore to educate students and prepare them for life after school. Schools are no longer having as much of a role in students social life anymore because of the diversity of the current student population. As a result an education system that does not meet the needs of a younger generation.

Any innovative idea must face the natural and social reluctance and precious time elapses before its relevance is needed at all. To be effective, the education system must be consistent with the society of his time. But while society and attitudes have changed, the institution is not regenerated. Institution is no longer resonating with the society. It strives to treat a form of visible discomfort without actually identify the real causes. "Education should not be reduced to technical rationality...It is because such forms of education do not address the whole child in all of his physical, emotional, political, cultural, and ethical complexity. The result is psychic "disorientation and fragmentation" in children, which will lead with tragic inevitability to the same things in a society whose citizens and leaders those children will one day be."1

One wonders about the impact of media and new technologies: mobile phone, Internet, games, social networks, on youth attitudes. These factors would guide to the superficial, immediate, and virtual and could engender a reflex of "zapping", an inability to sustainable attention and mental effort. It also can induce a loss of the sense of reality of same adolescents, questioning the boundaries between the virtual and the real. As noted Jean-Pierre Goudailler, it is a really linguistic divide contributing to increase marginalization of youth. Dominique Baillet1, which assimilates these language forms a sort of "against-culture". Through technology, music, cyber culture, young people have built a low permeability adult world. They also reflect the identification of tribal forms as highlighted by Michel Maffesoli, who recalls that "from an ethnological point of view the tribe, stricto sensu, was a way to fight together against the multiple forms of adversity...".4 Postmodern tribalism would not be foreign to a protective instinct from our origins.

3. The need for harmony in the student-teacher relationship

Our work claims that a harmonious relationship between student and faculty is a strong motivating factor for students in the learning proses. A postmodern pedagogical approach favours teaching skills and transmission of knowledge in a fashion that allows student to choose how they interpret and apply what they are learning. Regardless of the school programs, personality of the teacher plays an important role in the process of students’ learning. Perrenoud called this ‘informal knowledge’ the "hidden curriculum"5 well known in Anglophone literature.

The personality of the teacher also determines the quality of his/her relationship with the student. A better education system would result from teachers who take this into account.

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For this purpose, we emphasize the importance of sensitivity and empathy in education, more and more noticed by psychologists and sociologists such as Carl Rogers, Boris Cyrulnik, René Barbié, Jean-Daniel Rohart and many others, but whose educational institution ignores. However, the sharing of emotions, dialogue, and exchange are necessary for the peaceful resolution of differences and the transmission of knowledge.

Whereas the effectiveness of the education system is linked to its ability to stimulate the student's desire to learn, it is essential to seek mechanisms in order to generate interest and involvement of the student in learning. It is necessary to find new ways of understanding the student, a changing relationship with the teacher, a new report on education.

Michel Maffesoli believes that true knowledge is currently in the "gaps" in the unveiling of what is happening, what is offered to us in ordinary knowledge⁶. It evokes the connection between "freedom of mind and strength of the sensible"⁷.

Indeed, the sensitivity can be leveraged to create intense moments of education, by the matching of minds. It creates correspondence, "interstitial realities", timely occasions as the ancient Greeks called kairos. Pierre Bourdieu suggests that the sophists were accustomed to say what is important in learning it is the appropriate⁸ time or kairos. These moments of symbiosis between teacher and student, these magical moments of communion are particularly conducive opportunities to the initiation and learning.

These moments of symbiosis, these favourable circumstances to learning can be leveraged, even caused, when the actors of education gain better control. These prospects are particularly promising as empirical experiments. It is important to underline that taking into account the sensitive pedagogy is able to generate positive interactions, to introduce harmony in the transmission of knowledge.

The efficiency of the education system depends on the effectiveness of each individual teacher. Everyone has the right to change its methods for creating more productive and motivating learning situations and thus helps to reveal the latent potential of students.

These educational experiences from personal initiatives of teachers remaining isolated, have only limited influence. Such an approach could, however, give its full potential by being concretely supported and coordinated by educational institution.

4. The possibility of an archetypal approach to education

We propose an archetypal approach to education. Jung describes archetypes as a psychic process of the collective unconscious which generates common representations, or primordial images in our unconscious mind.

Archetypal pedagogy could contribute to a better medium of communication to the education system. Unconscious wishes which are deeply inside each human beings have an important impact on motivation. This pedagogy could motivate students by connecting their inner desires to their education experience. The art is very important in this approach to education, which "are not taught for their own sake; they are taught because they allow a child to experience a subject on a level far deeper and richer than the intellectual, it is the archetypal level. And this can be true of any subject, even the most traditionally scientific.⁹

The search for optimal learning situations involves a process of adaptation to the ambient atmosphere in the classroom and the sensitivity of each student in order to maximize personal skills and moments conducive to receptivity. Students are volunteers for new experiences. The teacher must ensure to maintain the curiosity, must be able to listen to, to generate interest or even passion for the subject. It is also crucial in the microcosm of the class, create a climate of sharing and conviviality, more oriented toward teaching the values of sensitivity, empathy, trust and understanding of others. The pleasure of learning is consistent with the pleasure of "being together "mentioned by Maffesoli, which states that "the life of our society integrates more sensitive, more sensations in its overall structure."¹⁰

The learning process should provide the student pleasure, freedom of expression, incitement to creativity. Traditional teaching is very focused on standardized exercises. It lacks of flexibility, which is essential for everyone to express themselves according to their own way of being. We feel in each class latent wealth, inhibited by the rules and dogmas, abilities that are waiting to be revealed. There are students in an untapped potential.

This potential if not detected and recovered, contrary to risk investing in the cons - productive forms.

The freedom to think and create the desire to depart from the traditional norms sometimes can be seen as unsuitable by the traditional education system. However, it is strange to see that it is in these moments of freedom that the teacher can discover his own students and help to reveal unsuspected abilities in them. In these moments, it is found that normally shy or reserved students have the opportunity to build their self-confidence. These moments trigger the externalization of their talents. The ideas, suggestions, willingness and motivation arise then. The emotion and sensitivity are true catalysts of student motivation. It is the same for artistic activity, which is a way to assert themselves by exposing themselves to the outside eye, which causes the pupil fertile interactions and sense of self-esteem.

"Students must be allowed to "fail" in productive and supportive ways that draw upon the creative possibilities of dialectical tension in promoting deep and lasting moral and intellectual growth. ...it is important for teachers to understand transferential psychodynamics both personally and archetypally in order for their interaction with students to be most appropriate and fruitful... education must be holistic, addressing the whole child in those many historical, cultural and political contexts within which the child develops psychospiritually."11

"...the idea of transference in teacher-student relationships is the single most important issue that psychoanalysis addresses for the educationist...The psychoanalytic pedagogues have vociferously claimed that the teacher, although not a therapist, can, if armed with a basic knowledge of the fundamental principles and practices of psycholanalysis, teach in ways that are psychologically wise and sometimes even therapeutically efficacious. "12

This education process requires that the teacher himself/herself adapt to be able to tune in with their students to create moments which allow students to realize their own hidden potential, which the Greeks refer to as "kairos".

The archetypal approach allows us to provide students the support necessary to experience enriching education that goes beyond the simple transmission of knowledge and prepares the student for the world. In recent years, the education system has lost sight of this objective. A reformation of the school system requires a reform of teacher training so that teachers acquire skills of adapting their teaching style so students can experience "kairos".

5. Initiation, the other mode of socialization, revealing potential

"All primitive groups and tribes that are in any way organized have their rites of initiation, often very highly developed, which play an extraordinarily important part in their social and religious life. Through these ceremonies boys are made men and girls women. The Kavirondo stigmatize those who do not submit to circumcision and excision as "animals." This shows that the initiation ceremonies are a magical means of leading man from the animal state. They are clearly transformation mysteries of the greatest significance. Very often the initiands are subjected to excruciating treatment, and at the same time the tribal mysteries are imparted to them, the laws and hierarchy of the tribe on the one hand, and on the other the cosmogonic and mythical doctrines. Initiations have survived among all cultures. "13

Emile Durkheim saw education as an instrument of socialization. More than ever the postmodern individual is in search of personal fulfillment. Beyond culture, school should also - and most importantly - give each child a better understanding of himself and his potential. It should first of all be given the means to reveal their personal potential. Michel Maffesoli reminds us that: "When we look at human history, there are two forms of socialization..."educare" which means "pull " is demanding, requiring self-discipline (...) and it seems to me more to match the spirit of the times. And there's another way to socialize, it's initiation. I would say that it is education that is modern. The initiation was pre-modern and, perhaps, will be post-modern. The initiation, unlike education, do not assume that there is nothing in the mind of one who is in front of me, the listener. It is postulated that there is something and I 'll walk, bring out the treasure, somehow, this person is in front of me, while education considers that there is a void that I must fill (...)."14

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14 Interview with Mr. Maffesoli, interviewed by Michaela Fiserova, Sense Review, 19/02/2006, published online (URL: http://www.jeunes-
Postmodernity, as shown by Michel Maffesoli dedicated return archaisms. In "The re-enchantment of the world", he suggests "the return of the initiatory desire is an echo that of postmodernity." It seems that the concept of education as conceived by Durkheim, who belongs to the so-called modern era, no longer fits completely with our postmodern time. The ancient concept of initiation could become a leitmotiv in socialization.

6. References


vocations.catholique.fr/download/1-17331-0/entretien-avec-le-sociologue-michel-maffesoli-doc.doc)
Session 11: Pedagogy

The Crucial Role Observation of Students Plays In Designing Appropriate Instruction: What to Observe When You're Observing
(Author: Dona A. Durham)

The Relationship Between Secondary Schools' Teachers in Saudi Arabia Perceptions of Causes of Behavior Problems and Strategies they use to Deal with these Problems
(Author: Emad A. Alwan)

Investigating Teachers Knowledge of Kindergarten Instructional Strategies
(Authors: G. O. Oyinloye, Osalusi F.M.)
The Crucial Role Observation of Students Plays In Designing Appropriate Instruction: What to Observe When You’re Observing

Dona A. Durham
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Abstract

Research suggests that structured observations of student behaviors in the classroom are one of the most commonly used assessment methods by school psychologists and other school-based practitioners (Hintze, Volpe, and Shapiro, 2002; Shapiro & Heick, 2004). Borrowing from both naturalistic and systematic direct approaches to observe student behavior allows the observer to hone their observational expertise and focus, resulting in more effective learner outcomes and interventions.

The most beneficial observation is based on the absence of pre-conceived assumptions about the student and the specific classroom and teacher. Starting with the visual and physical environment of the classroom, shifting to the specific student and his/her behaviors, and widening “the frame” to include interactions with peers and adults, provides the observer with a multi-faceted impression of what is happening in the classroom which can be systematically shared with the teacher and result in appropriate interventions for the student(s).
The Relationship Between Secondary Schools' Teachers in Saudi Arabia Perceptions of Causes of Behavior Problems and Strategies they use to Deal with these Problems

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Abstract

There has not been any study that considers students’ behavior problems in Saudi Arabia schools and the ways teachers use to deal with them. This study has sought to establish such research. Secondary school teachers' responses to students' misbehavior in terms of the kinds of students' behavior that concern them, their causal attributions of these problems, the strategies they use to deal with them, and the support they accessed, were all examined.

Eighty three teachers from five different areas of Saudi Arabia participated in this study. The study findings suggested that Secondary school teachers in Saudi Arabia felt most concern about distractibility behaviors. These teachers attributed students' behavior problems mostly to family circumstances and less to teachers and teaching factors.

They also tended to use positively focused strategies that teach children how to behave, instead of punishment. Secondary school teachers also seemed to prefer school-based support such as other teachers or counselors to outside professional support.

This study concluded that there is a need to establish regulations and procedures in Saudi Arabia to help teachers to better understand behavior problems and to help students with behavior problems, specially, different causes of students’ behavior problems.
Investigating Teachers Knowledge of Kindergarten Instructional Strategies

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Ado Ekiti, Nigeria

Abstract

The study assessed the kindergarten teacher’s knowledge of kindergarten instructional strategies. The kindergarten teaching career seems to be increasing in Nigeria now that many parents are now sending their young children to school at a very tender age. The reason for this is as a result of urbanization which made many young couples to move from rural areas and settle in urban towns taking up employment. Most parents who are self employed also send their children to care givers and nursery schools where these children are cared for, or taught by kindergarten teachers. The researchers noticed that there is proliferation of nursery and primary schools in Ekiti and Ondo States in Nigeria. The government and private individuals set up such schools. It seems as if most parents are sending their children to private nursery schools more than the government schools which seem to have more qualified teachers. Therefore, this study is out to investigate the quality of teachers in the private and public schools and what they know about how to teach preschoolers. The study is a descriptive one and a survey type. The population is all the kindergarten teachers in Ekiti and Ondo States Nigeria. The sample for the study is 200 teachers selected through multistage sampling technique that is schools from urban and rural areas, state capitals and local government headquarters. The instrument is a set of questionnaire tagged “Teachers’ Knowledge of Kindergarten Instructional Strategies. TKOKIS. The questionnaire addressed specifically teachers knowledge of how to lead children to be curious, explore, discover, experiment, ask questions, discover through touching, learn through play, link new idea to their own prior knowledge, share ideas e. t. c. The validity of the questionnaire was established and the reliability tested through test and retest method. The data collected was subjected to Pearson product moment correlation and the result was a correlation coefficient of 0.67 which was good enough for the study. Four research questions and hypotheses were generated testing the teachers knowledge of teaching methods, use of instructional materials, qualification and availability of instructional materials. The questionnaire was administered to the participants and collected immediately in order not to give room for discussion. The data collected was subjected to descriptive and inferential statistics specifically t test statistics. The findings show that the teachers in the government nursery primary schools were more qualified and more knowledgeable in the kindergarten instructional strategies than the teachers in the private schools. The study revealed that the private schools have more instructional materials than the government schools. It was concluded that early childhood education is thriving well in two states. It was recommended that the government should equip the schools with more kindergarten instructional materials while the private schools should employ more qualified teachers.
Session 12: Inclusive Education

The Pedagogic Signature of Special Needs Education
(Authors: Ewald Kiel, Sabine Weiss)

The Transition Experience of Young People with Visual Impairments into Higher Education
(Author: Rachel Hewett)

Imparting Need Based Education to Children with Special Needs Through
Inclusion- Integration - Remediation Model
(Author: Sheela Rajanikanth)

Effect of Interdisciplinary Collaborative Approach on At-Risk Students’ Phonological Awareness and Reading Skills
(Authors: Shameka N. Johnson, Priti Haria)
The Pedagogic Signature of Special Needs Education

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Ludwig-Maximilians-University Munich
Germany

Abstract

The study is part of the research projects “Demand Analyses for the Teaching Profession” and “Risk-Check for Prospective Teachers” at the Ludwig-Maximilians-University Munich in Germany. One of the goals of these projects is to identify a pedagogic signature, according to Lee S. Shulman [1], for working with students who have special educational needs. Special educational needs are defined as significant limitations in personal development and learning which require particular educational measures beyond regular education. The development of a pedagogic signature should create an identity and provide guidance, particularly for teachers who are working in the context of inclusive schools with no prior knowledge or training in this regard. The study is carried out against the background of the structural uncertainty of the teaching profession, following Dewey [2], and takes into consideration existing normative, theoretical, and empirical approaches in education. Existing research regarding demands is largely theoretical, while empirical research is rudimentary. The present study used a multi-method approach (see Cohen, Manion & Morrison [3]) to identify demands for working with students with special educational needs. Experts in the areas of learning disabilities and emotional/behavioural disorders completed an instrument from the field of industrial and organizational psychology, quantifying and weighting professional demands on teachers according to their importance. The results were added and validated through group discussions, creating a demand profile of special needs education.

As a central finding the expert groups highlighted demands referring to social competencies and student interaction. In this framework of social competencies and student interaction the expert groups emphasized the particular importance of a so-called humanistic ethos. This ethos seems to be the basis of the occupation overriding the other areas of competence of the demand profile. Beyond this ethos the groups emphasized demands like having an appreciative leadership or authenticity. Subject competences played a minor role and had been identified in the group discussions as diagnostic knowledge and knowledge about social skills. Furthermore, demands relating to “health-promoting behavior”, such as stress resistance, resilience and balancing work and private life, were supposed as being essential.

By combining the results with the dimensions of a signature pedagogy, according to Shulman, it is apparent that surface structure and deep structure play a minor role in the perceptions of special needs teachers. The central importance of the implicit structure is characteristic of the pedagogic signature. Developmental tasks for the practice of teaching and the training of prospective teachers are deduced from the demand profiles. It is argued in the context of teacher training that prospective teachers should be given plenty of opportunities to investigate the motivations for dealing with special needs students and to investigate their preferred interaction styles with the students (see Ainscow, Booth & Dyson [4]). Another developmental task focuses on health-promoting behavior to deal with the workload and to balance work and private life.
The Transition Experience of Young People with Visual Impairments into Higher Education

Rachel Hewett

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1. Scope

The longitudinal study of transitions experiences of visually impaired young people is a UK-based five year project which has been following the post-14 transition experience of 80 visually impaired young people since summer 2010, tracking them as they have left compulsory education (aged 16), and pursued various pathways, such as university and employment.

This research has incorporated case study work with six of the participants who have continued on to university. As well as engaging in a more focused investigation of participants accounts of their first year at university, sixteen ‘associates’ were recruited (key people who had had an impact on the participants experience as they had made their transition into university) and semi-structured interviews conducted. Participants were also shadowed by a researcher through a typical day at university, and observations recorded.

One of the key findings has been the importance of early preparation, with a number of the participants and associates describing how vital it was to start negotiations between the student, disability support officer, and course leader several months prior to the course starting. This is to establish how the young person would access the course, and what adjustments it would be necessary for lecturers to make. Disability support officers emphasised that these negotiations proved more fruitful if the young people had good self-advocacy skills, were able to clearly explain how their visual impairment affected them and how they would prefer to work. It was also identified that it is important for the young people to be well organised, particularly in terms of taking responsibility for the coordination of their own support (e.g. requesting copies of accessible text from the library). Good mobility skills, independent living skills, as well as the confidence to ask for assistance when needed, have all been recognised as key factors in adjusting to general university life.

2. Objective and Motivation

The overall objective of the study is to identify enablers and barriers which can impact on the success of transition into employment, for a young person with a visual impairment. The employment is very low in Britain compared to the general working age population – an estimated one third of people registered as blind or partially sighted are employed [1]. Positively there is evidence that education contributes to greater employability, with the difference in employment rate between higher and lowers qualified workers being greater than that observed in the general population. For over half of the participants within our sample, their recent transition pathways have included moving on to university. As research evidence has demonstrated a benefit of achieving a degree-level education for visually impaired young people entering the labour market, a thorough investigation of their early experiences is a key component of our work. There has been some anecdotal evidence that young people with visual impairments often experience difficulties at university, both in terms of accessing the course, and in participating in university life, which may cause them to leave their course prematurely, or not achieving to their full potential.

3. References

Abstract

Inclusion is where children with special needs (CWSN) are in the mainstream class for all academics and co-curricular activities. These children are in mild to moderate disability category. Integration is one in which the children get education in a small group setup but included with their mainstream peers for all co-curricular activities. These children may fall in category of moderate to severe disability. Remediation is one in which mainstream children with very mild disability get need based remediation from a special educator in the classroom setup or in pulled out sessions. The aim of this model is to reach out to maximum number of children with various disabilities and to provide need based education. By changing the model of inclusion from Full Inclusion to Inclusion-Integration-Remediation children with special needs begin to get meaningful education in different set-ups.

1. Scope

If schools all over the world adopt this model we could impart meaningful education to children with various disabilities. In present scenarios in most of the schools CWSN in the name of inclusion are put in mainstream classes but their individual academic needs are not addressed. By adopting this model, CWSN who are academically not coping up in class room situation will get academic inputs outside the class room by a special educator in an integrated setup. By doing this we can make them self-reliant in later part of their life. Similarly the mainstream children with very mild learning disability or specific skill lag can get individualized remediation from a Special Educator without getting the SEN tag. This will help them to put an end to their struggle in class room setup and be confident and thereby become successful in their academic careers.

The CWSN who are in inclusive set up get need based input from a special educator. They can be gradually mainstreamed completely and be off SEN.

At present we are catering to children with mild to moderate disabilities. By working further on this model we could extend the support to children with severe disability too.

2. Objectives and Motivation

The main objective of this model is to provide need based education to each child. The children who have moderate learning difficulties and behavioral problems will be at loss if they are in the mainstream class during academic sessions. Hence for them individualized education will be provided in a small set-up keeping in mind their present level of performance. However they are included for all activities with their peers to provide social inclusion. Similarly mainstream children whose difficulties are very mild and skill specific get remediation from special educator without being in SEN.

The CWSN who are in inclusive set-up get academic input both from mainstream teacher and special educator. Special educator gives need based input in the class itself and do adaptations and accommodations keeping in mind their academic needs. This way we can reach out to a broad spectrum of children ranging from mild to moderate disabilities with need based education and social inclusion.

3. Content as per objective of the paper

The Shri Ram School, Vasant Vihar started Inclusion in the year 1989. The children with moderately severe difficulties were in mainstream but without any special educator’s support. However this didn’t benefit CWSN since mainstream teachers alone were not able to look into their academic and behavioral needs. Hence we changed to Learning Centre / Integrated model in 1996. To provide an equal opportunity to CWSN and to participate in all aspects of school life we went back to Full inclusion in 2007 but with special educator’s support in the class room. Warnock’s intention of inclusion to provide mainstream to the CWSN lost its glory as it has been majorly used as a cost cutting measure in education(1). However in our school when we reverted back to Full
Inclusion we retained the team of special educators, occupational therapist, speech therapist and SENCO as an integral part of the system. We started inclusion in our school in a step by step manner where children of elementary classes were moved from integrated to inclusive setup in the first year.

Later students from Grade II and III were moved to inclusive setup in year 2008. In the following year students from grade IV and V were moved to inclusive setup. Thus the Learning Centre where integrated education was happening was replaced completely by Full Inclusion in 2009.

### 4. How does it work?

The children with special needs who are in inclusive set-up get input both from general education teacher and special educator. Special Educator gives need based input in the class and does adaptations and accommodations keeping in mind of CWSN’s academic needs. All CWSN have an Individualized Education Program (IEP) based on the skills that need to be developed or strengthened. Further implementation of this program is reflected in the monthly work plan. The feedback of their performance is shared with respective parents at the end of every month in the form of a detailed review. Special Educator takes extra classes on Friday to teach various skills like auditory perceptual skills, visual perceptual skills, organizational skills and language and communication skills. The students attend these classes after the school hours. This strengthens their skills further.

#### 4.1. Challenges faced in Full Inclusion

While catering to all CWSN in an inclusive set-up we realized that some of them were not getting benefited by this kind of education. Research study has shown that the education of children with moderate learning difficulties in mainstream schools is generally favorable; however children with severe and complex difficulties and behavioral problems need to be educated in special settings (2). Hence we brought the following changes in our model.

### 4.2. Changes after inception of Full inclusion to Inclusion-Integration-Remediation model

1) **Inclusion**: Children with mild and moderate difficulties are still getting their education being in mainstream class with special educator’s support in the classroom itself.

2) **Integration**: After having full inclusion for 3 years we realized that through full inclusion we were unable to impart need based education to each student of ours. Children with mild difficulties and moderate difficulties were coping well in inclusion set up. Whereas children with highly moderate difficulties and behavioral problems were not able to cope up in the class room situation even after adapting their curriculum completely and also special educator imparting the education in class room. Though physically the student was present in the mainstream class, academically the student was not getting benefit by being in the class. Hence we carved out a small setup of integration for these students. This means they attend academic classes in a separate set-up with a special educator; however they attend all activity classes, lunch, assemblies and circle time along with their peers. Therefore the social inclusion takes place during these activities. We teach a lot through tailor made life skill program for them.

3) **Remediation**: Meanwhile we started identifying mainstream students with specific mild learning difficulties and started remediation program for them. For example if a grade II child has shown difficulties in reading and spelling then a reading program and spelling program have been framed by a special
4.3. Factors contributing to the success of the model

1) Individualized attention is given to each child by maintaining the ratio of special educator to CWSN as 1:3 to 1:5 based on the difficulties of the children.
2) Highly skilled special educators and providing time to time professional training has helped in updating their knowledge.
3) Continuous sensitization program is being conducted across the school by special educators and class teachers to build a sensitive community.
4) Rainbow Smile Meeting, a monthly meeting for the CWSN parents to put across their concerns, feedback has helped to evolve a better system of education.
5) In order to support the emotional needs of CWSN parents, 'Caring For Carers' an interactive session with a well known counselor is taking place bimonthly.

4.4. Impact of Integration and Remediation on Inclusion

1) Starting integrated setup helped the special educator in the inclusive setup to concentrate more on the CWSN in the mainstream class. Hence the performance levels of these students have improved tremendously.
2) Special educators in inclusive setup started getting more teaching time per child as compared to earlier setup.
3) Children in integrated setup are becoming more confident socially and academically as they do not feel left out during their academic classes.
4) Children in integrated setup are getting structured education through Open Basic Education system.
5) Mainstream children who are getting remediation from the special educators are performing much better. In 2 cases we have withdrawn the remediation support as their performance is at par with their peers.

5. Outcomes of Inclusion

- After following the above model we could mainstream 2 children completely. Mainstreaming a child means they are in the class without any support from special educator. The mainstreaming is done in a graded manner. Once a CWSN is performing very well he is being weaned off from special educator’s input. In duration of 2 years the child is completely mainstreamed.
- Children with special needs who are in integrated setup have grown in self-confidence.
- Mainstream children became sensitive to the needs of these children and reach out to them whenever needed.
- General Education teachers have understood their needs and support them academically as well as emotionally.
- Gen Ed teacher’s role has changed from 60% partnership to almost 100% active participation while imparting skills to CWSN in class room.
- Parent community has accepted the inclusiveness so well that when we started giving admission to children from Economically Weaker Section in inclusive setup they started need based educational program for them.

5.1. Challenges faced

- As the rate of influx of Gen. Education teachers per year is high, training them to adapt their teaching techniques to our setup is still a challenge.

Table 1. Comparative study between various models of education imparted for CWSN in The Shri Ram School

<table>
<thead>
<tr>
<th>Year</th>
<th>Inclusion</th>
<th>Integration</th>
<th>Remediation</th>
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<tbody>
<tr>
<td>1989</td>
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<td>2014</td>
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The graphical analysis of data of CWSN in various set up in the transition years and the present day situation clearly depicts
1) Reaching out to more CWSN is possible due to this model when compared to the earlier ones.
2) CWSN started getting academic inputs in different set-ups based on their academic needs.
6. Conclusion

The Inclusive Education program that The Shri Ram School started way back in 1989 has seen a lot of changes as it has reached out to a broad spectrum of children ranging from very mild to moderate disabilities. By providing need based education our ultimate goal is to make the children with special needs self-reliant in their life.

Our research study taught us that there is no single model of education which is perfect for the children with special needs. However through different models like inclusion, integration and remediation has helped children to get the right kind of education.

7. Acknowledgement

I would like to thank The Shri Ram School, Vasant Vihar, New Delhi, India for the support extended for this project.

8. References

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Effect of Interdisciplinary Collaborative Approach on At-Risk Students’ Phonological Awareness and Reading Skills

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Abstract

The Interdisciplinary Collaborative Approach: Phonological Awareness and Reading Skill Intervention (IDCO-PARSI) is a training module that allowed teachers and speech pathologists to collaborate and integrate their expertise to create data-based intervention plan that provided at-risk first graders to practice target skills across settings.

1. Introduction

Research demonstrates that when strategic training programs are combined with collaborative approaches among teachers and speech pathologists, the overall results can benefit both professionals and school-age children (Friend & Cook, 2007). In addition, these collaborative approaches have positive impact on increasing the individual’s self-confidence, content and pedagogical knowledge, and intervention/teaching skills amongst professionals (Jenkins & Sheehey, 2009). The implementation of collaborative approaches to implement technology based instruction (TBI) (i.e. Ipads) intervention targeting phonological awareness (PA) skills can contribute to successful reading abilities in school-age children (Engen & Hoiien, 2002). Thus, the purpose of this IDCO-PARSI approach is two-fold: a) to enhance pedagogical knowledge and skills of the teachers and speech pathology participants; and b) to increase PA and reading skills in at-risk school-age children.

For this project, primary participants consisted of three school teachers and three communication disorder graduates. They were randomly paired to form dyads. In addition, eight first grade students were considered as secondary participants. The study employed qualitative and quantitative data collection methods.

The investigators collected data using the following tools for teachers: pre- and post- PA and reading skill test, fidelity checklist, observation field notes, weekly feedback meeting minutes and a satisfaction questionnaire; and students: pre- interim- and post- Profile of Phonological Awareness (ProPA I-pad test) to measure students’ phonological awareness skills; administered grade-level reading probes to measure fluency. The study consisted of two phases:

2. Phase I: Participant Training

First, primary participants completed a pre- PA and reading skills knowledge test. Secondly, participants attended eight sessions over the course of two months addressing the following modules: a) Intro to interdisciplinary collaborations; b) Collaboration within classroom; c) targeting and unpacking common core content standards; d) overview of (PA) and reading skills; e) assessment and interpretation of results; f) IDCO-PARSI training approach. The training sessions were conducted by the researchers. At the completion of the module trainings, the participants completed a post PA and reading skills knowledge test. After completion of phase one, the participants independently implemented IDCO-PARSI in the school setting in their respective classroom.

3. Phase II: Implementation of IDCO-PARSI in School

The primary participants (i.e., communication disorder graduates) administered pre- and post- ProPA test to identified at-risk children. Then, the identified children received PA and reading skill intervention developed via IDCO-PARSI approach. Communication Disorders graduate students were leading 20 minutes the hands- on and Ipad articulation and PA portion of the intervention and the educators integrated the targeted skills for at-risk student during their language arts period. The classroom teachers provided purposeful and strategic opportunities to practice target skills. After every fourth intervention session, the child completed an interim ProPA test. This phase ran for six-eight weeks completing 16 intervention sessions, 4 test to skill sessions (interim test) and 24 classroom integration intervention sessions. While the primary participants were completing this phase, the researchers supervised and observed the sessions, collected and
analyzed data, and conducted weekly debriefing sessions.

The researchers are in the process of collecting the posttest data. However, the preliminary analysis of the pre- and interim- Profile of PA I-pad test indicated that within short time, the students have made substantial progress on PA skills. In addition, the teacher knowledge test scores also indicated that they gained 30% more conceptual information about beginning literacy skills and collaborative practices. In addition, during teacher interview, the teachers mentioned that not only students PA and reading skills increasing but their self-concept is improving. Children are more confident and are eager to participate in class. Preliminary findings indicated many benefits in using IDCO-PARSI approach.
Session 13: Inclusive Education

Design of a Social Skills Training Programme for Adults with Intellectual Disability: an Irish Perspective
(Authors: Maeve Daly, William Kinsella)

Relationship between Preservice Teachers' Knowledge of Emotional and Behavioral Disorders (EBDs) and Their Self-efficacy Beliefs
(Author: Keetam D. F. Alkahtani)

Grit—Key Character Trait in School Success for Underprepared Students
(Author: Carol Champlin)
Design of a Social Skills Training Programme for Adults with Intellectual Disability: an Irish Perspective.

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Abstract
This study evaluated the effectiveness of consultation as a means to developing a social skills training (SST) program accessible to adults with Intellectual Disability (ID). An SST manual of 230-pages and separate accessible workbook were developed through a consultative process with staff and clients at a service. The researcher and one consultee co-facilitated six pilot lessons from the program with a group of clients. Following intervention, results showed moderate generalization of clients’ social skills to the home-setting, although nine out of ten families acknowledged subtle gains made. Clients indicated high levels of satisfaction with SST. Service-staff reported high levels of treatment acceptability and satisfaction with the consultation-service. Staff expressed the intention to implement the program under a training module in the adult training and employment centers at the service. Results support the hypothesis that consultation represents an effective model of service-delivery when applied to a service for ID.

1. Introduction
Consultation has become one of the central roles of educational psychologists (Zins & Erchul, 2002) and is now considered an effective approach for providing psycho-educational services (Erchul & Sheridan, 2008). According to Gutkin & Curtis (1999), its indirect nature of service delivery, combined with its dual goals of remediation and prevention, make consultation an efficient service-delivery approach. The present study aims to approach the development of an SST program for adults with ID through a model of consultation, which has proven an efficient service delivery approach in school settings (Zins & Erchul, 2002).

In the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, diagnosis of ID is based on levels of adaptive functioning in three domains: social, conceptual and practical skills (APA, 2013). Participants in the present study have diagnoses of Mild or Moderate levels of ID. Many participants also present with additional needs, namely Anxiety Disorder or Autism Spectrum Disorder (ASD).

2. Social skills training
The transition to adulthood at the end of adolescence involves learning social, practical and vocational skills and promoting communication skills necessary to retain employment for young adults with ID (Carr, O’ Reilly, Noonan-Walsh, & McEvoy, 2007). Research suggests that taking advantage of social opportunities requires appropriate communication and social skills and that communication interventions to enable assumption of adult roles need to be developed and implemented for individuals with ID (Sigafoos, O’Reilly, & Green, 2007). Despite this, a dearth of standardized SST programs specifically developed for adults with disabilities is found in the literature, despite on-going communication impairments experienced by this population throughout the life-span (Kelly, 2000).

Social skills, which are central to adaptive living, are defined as specific strategies used by an individual to perform social tasks effectively and thus be judged as socially competent (Baker, 2003). SST for individuals “aims to increase [their] ability to perform key social behaviors that are important in achieving success in social situations” (Spence, 2003, p. 84). Given findings that community integration is a powerful determinant of quality of life for people with ID (Keith, 2007), research suggests communication interventions need to be developed and implemented to enhance autonomy for individuals with ID. According to Kelly (2000), clinicians have an important role to play in the planning and design of effective interventions that affect change in social skills and in the quality of life for individuals with ID. Use of inclusive instructional practices for teaching skills to a population with ID is endorsed by research (Wehmeyer & Lee, 2007). Additionally, guidelines for best-practice emphasize the importance of giving careful consideration to issues such as treatment acceptability, intervention effectiveness and use of empirically-supported approaches and resources in the design of an appropriate intervention (Zins & Erchul, 2002). This study aims to contribute to the
field of ID through the design of an SST program that applies educational psychological techniques and promotes evidence-based practice. According to Keith (2007), catering for the views of the client in the process is a crucial aspect of effective intervention, which is another key goal in the present study.

2.2. Mental health and Intellectual Disability

Research highlights links between challenging behavior, co-morbid psychopathology and social skills impairments in adults with ID. An Irish study by Kearney & Healy (2011) found that adults with ID who presented with psychiatric symptoms were found to have more severely impaired social skills than those who showed no signs of comorbid psychopathology. An outcome of their study is the recommendation that people with ID who also present with psychopathology should be targeted for early intensive social skills training in an effort to facilitate social inclusion of people with ID in the community (Matson, as cited in Kearney & Healy, 2011).

According to McGillivray and McCabe (2009), programs such as SST should be offered as both prevention and intervention components of service delivery and programs should be deliverable by staff currently ‘in situ’ at services. They employed a participatory approach to research in a study that explored the views of key stakeholders regarding symptoms and risk factors associated with depression in people with Mild ID. ‘Getting help to mix with others’ was identified by participants with ID themselves as a crucial support needed for treating depression (McGillivray & McCabe, 2009). Findings of their study lend weight to the argument that SST should be implemented as a positive support available at ID services, both as a treatment and a preventative strategy to improve the quality of life for individuals with ID.

2.3. Consultation

Every model of consultation aims to achieve both remedial and preventive goals (Gutkin & Curtis, 1999), with consultative work seen as being both a proactive and reactive service (Zins & Erchul, 2002). The problem-solving model of consultation involves leading consultees through a structured problem-solving process with a four-stage framework (Bergan & Kratochwill as cited in Gresham, 2002). The remedial and preventive aspects of consultation are particularly applicable to the educational setting for adults with ID because SST programs are recommended as both a treatment and as a preventative strategy for adults with ID who present with comorbid psychopathology (McGillivray & McCabe, 2009). Also, through increasing consultees’ skills and knowledge of SST programs and techniques, the system is empowered to deliver the program to future groups at the service after the direct support of the consultant is withdrawn (Zins & Erchul, 2002). A recent study in Ireland evaluated the efficacy of behavioral consultation as a means of improving social skills for adolescents with Asperger Syndrome (Minihan, Kinsella & Honan, 2010). Findings showed that SST led to clinically significant improvements in students’ social skills. Application of this model to a service for ID aims to enhance the effectiveness of this intervention. Therefore, the current study set out to extend these findings in Ireland and assess the efficacy of delivering SST through an adapted model of consultation at a service for ID.

Aims of the present study were: 1) To adapt SST skills sessions from published SST programmes and make lessons accessible and appropriate for adults with ID and co-morbid conditions. 2) To establish whether the remedial goal of consultation was achieved: 2a) To examine whether the pilot programme of SST improved the social skills of adults with ID and co-morbid conditions at the service. 2b) To establish whether any changes in clients’ social skills generalised to their home setting. 3) To establish whether the preventive goal of consultation was achieved: 3a) To pilot six sessions of the SST programme and take a participatory approach to research by gaining clients’ (adults with ID) views to inform the design of an SST programme. 3b) To investigate if consultees (service-staff) feel the SST programme designed through consultation meets the needs of clients and empowers staff to introduce the intervention in ongoing service-delivery at a systemic level.

3. Methodology

3.1. Setting and participants

This study was conducted at a service for ID in Dublin, Ireland. Adults with ID were clients in the study. Fourteen clients, from a sample of twenty-one adults who consented to participate, were selected for participation in the SST sessions on the basis of priority for SST as judged by training facilitators and the principal psychologist. Members of the clinical team and staff from training centers were consultees in the study. One training facilitator also volunteered to pilot the SST program with the researcher/consultant, co-delivering six pilot session plans. Just ten families from the sample selected consented to participate in the research and their data was included in the present study. A waiting list was formed for seven trainees who showed interest, but who were not initially selected for participation.
3.2. Materials and procedure

3.2.1. Administrative procedures. A pilot program of six SST sessions from the full program of sixteen sessions developed was implemented at the service over seven consecutive weeks. Consultation sessions took place at the service and involved twelve hours of consultation time with consultees. The pilot SST sessions involved twelve hours of direct contact time between the consultant, consultee and clients, which served as training with the consultees.

3.2.2. Consultation. Behavioral consultation including training (albeit an adapted version of technology training that is usually delivered in schools) was applied to the development of the SST intervention (Bergan & Kratochwill as cited in Gresham, 2002). This involved leading consultees through four phases: problem identification; problem analysis; plan implementation; and plan evaluation.

3.2.3. Problem identification. The principal psychologist was consulted on the needs of the service for improving SST-delivery to clients. Problem identification interviews were conducted with consultees (members of the clinical team and staff at training centers) to identify clients’ priority social skills needs. Consultees and family members prioritised social skills options from a menu of social skills (Kelly, 1996). Skills ranged from ‘how to greet others’ to ‘sticking up for yourself’ under assertiveness skills.

3.2.4. Problem analysis. The researcher/consultant analyzed data collected to identify content for the SST manual. A manual of sixteen lesson plans and an accompanying client workbook were compiled based on a synthesis of resources and materials from published evidence-based SST programmes for various disabilities (e.g. Baker, 2003; Cornish & Ross, 2004; Kelly, 2003; Kingsep & Nathan, 2003). Baseline data was collected through family members’ completion of the social domain of the Adaptive Behavior Assessment System, Second Edition (ABAS-II; Harrison & Oakland, 2003).

3.2.5. Plan implementation. This stage involved implementing the intervention and training. The SST program was co-directed and co-facilitated by the researcher/consultant and one consultee. A process-evaluation measure (designed by the researcher using a five-point Likert scale) was used to monitor treatment integrity of each session and to prompt collaborative self-reflection between facilitators. Semi-structured questionnaires were made accessible for persons with ID by the researcher and piloted at pre- and post- intervention stages. Client questionnaires were based on a combination of questions deemed useful from research (Spence, 2003) and from clinical interviews contained in published social skills curricula (e.g. Kelly, 1996). Aims for the group were established with clients.

3.3.6. Plan evaluation. Generalization of skills was assessed by family members’ completion of a short semi-structured questionnaire and the social domain of the ABAS-II. A semi-structured questionnaire was conducted with the co-facilitator to assess specific changes in clients’ social skills and to assess the possibilities for continuing the SST programme as part of on-going service delivery. The Intervention Rating Profile-15 (IRP-15; Martens, Witt, Elliott, & Darveaux, as cited in Gresham, 2002) was adapted for use at the service and administered with consultees. Adaptation involved changes to terminology (e.g. ‘child’ was changed to ‘client’) without modifications made to question-items (Cohen et al, 2011). The Consultant Evaluation Form (CEF; Erchul, 1987) was adapted and administered with consultees. Adaptations again included small changes to terminology only.

4. Results

4.1. Generalization (ABAS-II: Adult Form)

Results from family members’ ratings on the social domain of the ABAS-II showed an improvement in social skills for eight out of ten clients. One client remained on the same score and another client’s score was observed to decrease. The latter score was an outlier in the group, starting with the joint lowest score at pre-intervention and decreasing by 12 standard points. It is likely that this difference was influenced by interference effects. The Reliable Change Index (RCI) was used to ascertain whether or not changes observed were large enough to be attributable to the intervention rather than to measurement error (Moleiro & Beutler, 2009). A statistically reliable change was observed from pre- to post- intervention (\( p < 0.05 \)) for six clients.

Normative comparisons of ABAS-II data revealed that four out of six clients with statistically reliable change from pre- to post- intervention moved from one range to another, which indicates clinically significant changes in the social domain for four clients following consultation. Results suggest that
40% of clients with ID improved their social skills through intervention.

4.2. Semi-structured questionnaire (families)

Nine out of ten family members reported that their son/daughter enjoyed the intervention, learned a new skill and found the group helpful. Items relating to learning a specific new skill and usefulness of the group elicited responses, with six families providing short comments to describe the nature of changes observed. Daragh’s family noted that he learned ‘how to talk about his family’ and Natasha’s mother commented that ‘she learned how to speak up for herself’.

In relation to the nature of these changes, Ruth’s father noted ‘overall we have noticed an improvement’ and Monica’s father commented ‘yes, she learned something but it’s hard to say what’. This sentiment was echoed by Barry’s parents also, who stated “yes [learned a new skill] but he cannot tell about it” and “we can just see that he [Barry] is being more sociable”. Such comments may reflect the subtle nature of social skills and difficulties with capturing specific changes in skills (Spence, 2003).

4.3. Process Evaluation – Clients

Participants rated each session on a 4-point Likert scale for three simple statements about enjoyment, usefulness and difficulty. Overall, scores for Enjoyment (mean = 3.75) and Usefulness (mean = 2.95) were high across sessions, suggesting participants enjoyed SST and acquired knowledge in each session. The mean score for Difficulty was lower throughout the program (mean = 2.66), although there was a sharp increase after session two, suggesting participants felt challenged during subsequent sessions. This result prompted facilitators to run a review session for week five. The sixth session in the manual (compliments) was covered over two sessions, which appeared beneficial for clients with a reduction in the mean score for difficulty observed. Overall, progress evaluation measures served to inform appropriate pacing.

An open-ended question followed each statement (“If yes, what did you enjoy? If yes, what was hard? If yes, what did you learn?”). Responses were analyzed qualitatively. Props and activities emerged as a subtheme under Enjoyment. After sessions, four clients mentioned the ‘talking stick’ and ‘bean-bag’ as enjoyable. Facilitation of interactions between group members contributed to fun in the group. Daragh mentioned ‘talking’ under Enjoyment and Barry noted he enjoyed ‘talking about rugby and swimming’. Specific skills and activities also emerged as a subtheme of ‘Usefulness’. ‘Shaking hands’ and ‘sharing’ were comments made, suggesting clients specifically remembered these.

Similarly, many clients noted specific phrases as useful. After session seven, Jack remarked “[I will] say that’s a nice garden to someone’ and after session 2, Monica stated ‘If I met a bus-driver, I’d say Hello, how are you?’

Many comments made in later sessions reflected a subtheme of getting to know each other as an important aspect of the group for clients, suggesting that group cohesiveness formed as weeks passed. For example, Natasha highlighted ‘meeting Neil’ and ‘smiling’ as useful aspects of session five. Monica noted that ‘I learned about Natasha and her family’. No clear pattern of subthemes emerged under the item for difficulty. Interestingly, Lucy mentioned the ‘talking stick’ as difficult after session two and mentioned it under ‘Enjoyment’ after session six. This suggests that consistent repetition and review with an activity that may be daunting at first, can yield positive results for individuals with ID.

4.4. Treatment Acceptability

Responses to the Intervention Rating Profile -15 indicated a high level of acceptability of the intervention. Consultees rated the intervention with a total mean score of 84.3 with a range of 78 – 90.

4.5. Semi-structured questionnaire

The co-facilitator/consultee reported that the intervention would be ‘rolled out’ for future groups at the center ‘using the manual’. She highlighted that the program will be run ‘under the communications module…’. The questionnaire included a number of open-ended questions prompting reflection under the following themes: benefits for clients; benefits for the center; and future use of the program; which were analyzed qualitatively for subthemes.

Under the master theme of benefits for clients, greater interaction among the client group emerged as a subtheme. The co-facilitator stated ‘it [the program] has got them talking’ expanding with ‘they had some of the skills but they’re more assertive about using skills now’. She referred to the ‘buzz of conversation among clients’ she witnessed on the morning of the last session and described ‘a restaurant-type atmosphere’. In relation to benefits for the center, the co-facilitator emphasized autonomy for the center as one of the major benefits by saying ‘we [staff at the center] don’t have to depend on the clinical team, we can still look for advice but staff may not be released to help’.

When discussing future use of the program, the manual was highlighted as useful because ‘staff need the objectives to follow’ and ‘…it’s broken down into lesson plans which is very useful’. The co-facilitator emphasized her intention to follow the program stating “[the staff] will do an assessment at
the end of each section or at the end of every objective’. Qualitative data revealed benefits of the SST program to clients and the center that cannot be captured by rating scales such as the IRP.

4.6. Consultant effectiveness

Consultee responses to the Consultant Evaluation Form indicated high overall satisfaction with the consultation process. The consultant received a mean score of 52 with a range from 50 to 54 following implementation of the SST program/technology training.

5. Discussion

The present study focused on designing an SST program for adults with ID through a model of consultation. Examining the degree to which remedial and preventive goals of consultation were attained involved the collection of multiple measures in order to establish; 1) Client outcomes; 2) Consultees’ attitudes toward the consultation process; 3) Consultees’ attitudes toward the intervention and towards continuing the SST program as part of on-going service delivery at the organization. An SST manual of 230 pages, complete with session plans, materials and assessments resources, is a major outcome of the present study. A client workbook was also produced to accompany part of the program.

In relation to generalization of clients’ social skills, results indicated moderate improvements in social skills to the home setting. Results from families on the ABAS-II showed that SST led to reliably and clinically significant improvements in clients’ social skills for four out of ten clients after the first six sessions of the program, which is a similar trend to results observed in research conducted in schools by Minihan et al (2010). Of clinical relevance, however, results suggest that 40% of the group may be ready to cover higher-order skills contained in part two of the program, while at least half the group is likely to benefit from repeating introductory sessions again. Qualitative data indicated that gains were noticed by half of the families, contributing social validity to clients’ ABAS-II scores. Qualitative data from a semi-structured questionnaire completed by the co-facilitator revealed a ‘restaurant-type atmosphere’ among clients during the final session. This suggests subtle changes were observed beyond what could be captured in clients’ ABAS-II scores. Given that only six sessions were delivered from the program of sixteen sessions developed, further improvements in clients’ social skills could be expected after implementation of the complete program.

The program followed guidelines for best practice in promoting generalization of skills (Zins & Erchul, 2002). Many role-plays referred to situations in the home and community of relevance to clients’ lives, as recommended in previous research (Minihan et al., 2010). Weekly homework activities were set from the client workbook to prompt use of skills between sessions, in line with recommendations from SST literature (Gresham, 2002). A number of barriers led to clients’ inconsistent completion of homework activities such as the level of support clients required to meet a social skills buddy and to read task requirements. It was not always possible for the service to assign staff to supervise completion of homework activities. Practicing skills with a group of typical peers has led to improved social interactions in other studies (Kavale & Forness, 1999; Minihan et al., 2010). In the present study, the role-play assistant in attendance differed from week to week, constantly exposing clients to new social interactions reflective of work settings in the community. The inclusion of multiple peers without ID (i.e.: more than just one role-play assistant) may have contributed towards greater generalization effects for clients.

Process-evaluation measures served to gain clients’ views on the program after each session, taking a participatory approach to research as used in previous research for ID (McGillivray & McCabe, 2009). Clients’ views on the process were used to inform pacing of the program; e.g. a review session was incorporated into the program for session five arising from clients’ high ratings on difficulty after preceding sessions. Research suggests that people with ID tend to give responses that interviewers expect (Hayashi et al., 2011). However, the mean score for ‘Difficulty’ was moderately low throughout the program compared with scores for ‘Enjoyment’ and ‘Usefulness’, which indicates clients’ differentiation between meanings of ‘enjoy’, ‘useful’ and ‘difficult’ in expressing their views and lends a degree of validity to clients’ responses. Low ‘difficulty’ scores also suggest that a program which is appropriate for clients’ ability levels was achieved. Additionally, subthemes identified (e.g. Facilitation of interactions and getting to know each other) also suggest the intervention helped many clients achieve their common aim of learning ‘how to make friends’. Given that ‘lack of participation in activities’ and ‘impoverished social support’ are identified as significant risk factors in developing depression for individuals with ID (Kearney and Healy, 2011), the importance of an SST program in helping clients make friends becomes apparent. Furthermore, use of inclusive instructional practices (e.g. concrete materials, role-plays and cooperative-learning) endorsed by research (Wehmeyer & Lee, 2007) were reflected in clients’ responses under subthemes of props and activities and facilitation of interactions.
Taken together, these measures suggest that published SST curricula were adapted appropriately in the design of an SST program that is accessible to individuals with ID, meeting a major goal of the present study.

Research suggests that consultees must consider interventions to be acceptable, effective and easy to implement to increase the likelihood that services will be delivered to clients (Zins & Erchul, 2002). Numerous strengths in the design of the SST program may have contributed to high ratings of treatment acceptability from consultees at the service. High levels of ratings on consultant effectiveness indicate that the collaborative effort between consultant and consultee was effective in achieving the preventive goals of consultation. Qualitative data from the co-facilitator’s questionnaire endorsed the view that this program is useful to the service. These findings suggest program development through consultation with technology training can be an acceptable method of service-delivery for staff at a service for adults with ID.

5.1. Strengths and Limitations of Study

The service has been provided with an SST Programme that has been specifically designed and adapted for persons with ID that can be used as a social skills intervention with other clients in the future. Resources were selected from published evidence-based programmes of SST (Baker, 2003; Cornish & Ross, 2004; Kelly, 1996). Research suggests the design and selection of interventions should be based on empirically supportable treatments (Zins & Erchul, 2002). The SST program began with basic social skills identified by clients themselves (e.g. how to make friends) and progressed to higher-order skills (e.g. assertiveness) identified by staff and families. This is in line with findings in SST literature that skills should be covered in a hierarchical structure (Kelly, 2000; Spence, 2003). Clinical interviews from published curricula were made accessible as pre- and post-assessment questionnaires, piloted with clients and included in the SST manual. According to the SST literature (Kelly, 2000; 1996; Spence, 2003), drawing on clients’ views is vital in the identification of their needs, which is in line with findings from quality of life literature (Keith, 2007). To maximize treatment integrity of the intervention, the consultant had direct involvement with consultees and clients in co-delivering six pilot sessions from the SST programme. This aimed to empower staff for ongoing implementation of the program thereafter (Erchul & Sheridan, 2008). To adhere to treatment integrity of the programme, facilitators rated their skills after each session based on ten core principles recommended from SST literature (Kelly, 2000; Kingsep & Nathan, 2003). This checklist was included in the SST manual. Previous research recommended use of checklists in documenting facilitators’ mastery of skills (Minihan et al, 2010).

This study has a number of limitations. Factors that may influence informant-ratings were not controlled for in the present study, such as affective changes or parents’ literacy skills, which may have impacted on informants’ capacity or willingness to complete ABAS-II questionnaires. Random selection of the sample was not possible in the present study because the service prioritised clients based on SST needs. The waiting group could have been used as a control group but this was not possible due to staff limitations. Confidentiality was explained to clients and examination-type conditions were applied for the completion of process-evaluation measures. Despite this, clients may have influenced each other’s answers in the small-group setting. Researchers must be aware that clients with ID are subject to social desirability in their response-sets.

6. Conclusion

Clients’ views were taken into account in the development of this SST program, reflecting a participatory approach to research and one that is responsive to clients’ needs. Findings suggest that preventive goals of consultation were attained and that the SST manual and participant workbook may be used as a blueprint for future interventions at the service. Results showed moderate generalization of clients’ social skills to the home setting. This suggests clients may require repetition and review of pilot sessions and/or completion of the full SST program of sixteen session plans before the remedial goals of consultation can be realized.

The core outcomes of the study include an improvement to the service at a systemic-level, in relation to SST, the empowerment of consultee personnel within the service and improvement in social skills of clients who participated in the program. There is further potential to enhance their social skills and those of other clients who may access the program in the future. Results suggest that this instance of collaborative-work through consultation shifted the researcher’s role beyond one of designing and implementing an SST program for merely one group of clients. The present study contributes to the field of ID and consultation research as it supports the application of an Educational Psychologist’s skills to a service that supports adults with ID.

A number of recommendations for future research arise from this study. The SST program developed in the present study requires further research to establish its evidence-base as an adapted program. Use of more sensitive measures to capture specific changes in clients’ social skills should be considered in future research, e.g. recording.
counting and comparing the number of words a client uses during a ritual activity in the first, middle and last session. Qualitative data obtained from the semi-structured questionnaires completed by the consultee/co-facilitator is subject to informant-bias. Triangulation of data from objective sources (e.g. staff member who is not directly involved) is important for future research enhancement. Use of an objective measure of treatment integrity would also benefit future research efforts.

7. References


Relationship between Preservice Teachers' Knowledge of Emotional and Behavioral Disorders (EBDs) and Their Self-efficacy Beliefs

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Abstract

Teachers' knowledge of emotional and behavioral disorders is a key issue in identifying and serving students with EBDs. Teachers' self efficacy is important for the teacher’s willingness to work with a student with EBDs. The purpose of this study is to examine the relationship between preservice teachers' knowledge of EBDs and their self-efficacy beliefs. This is a quantitative study that utilizes survey methodology. Data were gathered from 107 participants using a three-section survey. All participants enrolled in undergraduate teacher preparation programs. The majority of participants had overall poor knowledge of EBDs. There was a significant correlation between participants' knowledge of EBDs and their self efficacy. These results suggest that increased knowledge of EBDs would increase preservice teachers' self efficacy.
Grit--Key Character Trait in School Success for Underprepared Students

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This case study focuses on one special needs student. This student, Sarah (not her real name) has no documented disability. She was never evaluated by a psychologist or psychiatrist. She was never in Special Education classes in high school. She rarely utilized any support services offered by her college. Sarah’s special needs do not appear to be genetic, chemical or organic (brain damage) in origin (though these possibilities should be investigated in future research to generate a fuller picture of Sarah). Nonetheless, Sarah has struggled with special needs all of her life.

Sarah has succeeded in graduating from high school on time; she is now completing her coursework for an Associate’s degree in Human Services and has been accepted into a Bachelor’s degree program in Human Services at a local university. Sarah was also inducted into Phi Theta Kappa, the two-year college equivalent of Phi Beta Kappa. Most recently she gave the inspirational speech at the Spring, 2014 Induction Ceremony at her college.

Sarah’s special needs appear to be primarily environmentally caused. Sarah’s childhood included beatings, abandonment, sexual molestation by a relative, living with a drug-addicted caretaker, being in the foster care system, being diagnosed as HIV positive at age—, being separated from all of her biological siblings and having to support herself from age 16 on. On the ACE Scale (Adverse Childhood Experiences –Felitti, V and Anda, R, “The Relationship of Adverse Childhood Experiences to Adult Medical Disease, Psychiatric Disorders, and Sexual Behavior: Implications for Healthcare”, 2009) Sarah scores a 7 out of 10. Overall, the higher the ACE score, the worse the adult outcome on nearly every measure from addictive behavior to early sexual behavior to chronic diseases to likelihood of attempting suicide. (Paul Tough, How Children Succeed: Grit, Curiosity and the Hidden Power of Character, pp 10-11, 2012)

Again, as noted above, even though Sarah entered college with the very poor scores in reading, writing and math on the college’s placement exams, typical of a person with a neurological learning disability, she was never tested for or diagnosed with such a disability. Characteristics that appear indicative of neurologically-based learning disabilities appear to be due to “nurture” rather than “nature” in Sarah’s case. The educator must take the time to gather sufficient information about the student in order to plan interventions that will meet that particular student’s distinct profile. One must avoid labeling on the basis of limited data—test scores alone.
The most important interventions for Sarah by the program advisor and other support staff seem to have been: 1) giving her space—space to find her own way without excessively prescriptive advice; 2) offering a genuine “open door” through which she can walk at any time to consult the advisor, counselor, faculty members and others, when an obstacle arises; and 3) providing non-judgmental interactions through which Sarah can experience increasing trust. With these “hands-off interventions” Sarah has been allowed to find her own way with safety nets available, if needed.

Sarah did take remedial courses in reading, writing and math on the basis of the placement tests. Nevertheless, she will walk in graduation ceremonies with her entering cohort. She will have to take nine credits during the summer session to complete all of the graduation requirements. Interestingly, Sarah has made very little use of tutoring and other academic supports available to her—and to all students—at her college. She has availed herself of tutoring in her college math course, but not in any other course. She has not sought tutoring help in writing her papers or studying for exams. She has never requested extended time for exams or projects. (This lack of utilization of academic supports occurred because Sarah is at the college only two days each week. She works full-time to support herself in her own apartment. She pays all of her own food, utility, transportation and other bills.)

Sarah seems to have succeeded through what Angela Duckworth calls “grit” which, along with “self-control” which her research has shown to be “the greatest determinant of a child’s success,” more than grades, tests, IQ and innate talent. (Philadelphia Inquirer, “Truly, grit is key to success” Karen Heller, October 13, 2013). “Grit” is defined by Duckworth as “perseverance and passion for long-term goals, and ‘sticking with your future, living life like a marathon, not a sprint.’” (Ibid)

Duckworth has developed a **Grit Scale** of twelve brief statements which the respondent rates along a continuum from “Very much like me” (5 points) to “Not like me at all” (1 point). The statements include “New ideas and projects sometimes distract me from previous ones”; “Setbacks don’t discourage me”; “I am a hard worker” and “I finish whatever I begin”. (Tough, pp. 74-75) When Duckworth took the Grit Scale into the field, it proved remarkably predictive of success in a wide range of settings—achieving high GPAs in college, despite low college-board scores, surviving to the late rounds in the National Spelling Bee and surviving the demands of a grueling summer training camp for freshmen cadets at West Point. (Tough, p. 75)

Sarah’s Grit Score is---and it seems strongly correlated with her high grade point average (3.5) in college despite such high ACE scores. The minimal interventions noted above have allowed Sarah to do what she does best—“grit” her way through challenging situations. She has maximized her strongest asset—grit—to fight her
way through her limited preparation in reading, writing and math. The “hands-off, but available” setting opened the way for Sarah to demonstrate her passion, to persevere and complete the marathon.
Session 14: Learning / Teaching Methodologies and Assessment

Prospective Teachers’ Use of Alternative Structures to Differentiate Reading
(Authors: Yvonne John, Stephen Joseph)

The effects of individualized and guided discovery instructional techniques on the achievements of special needs students (underachievers) in chemistry
(Author: Clementina I. Nwahunanya)

Effect of Remedial Teaching Program on Performance of Pupils with Mathematics Difficulties in Lower Primary Schools in Butere District, Kenya
(Authors: Wafula Robert Wekesa, Nyakwara Begi, Kang’ethe Rachel Kamau)
Prospective Teachers’ Use of Alternative Structures to Differentiate Reading

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Abstract

Large numbers of children, found in schools throughout Trinidad and Tobago are not developing the reading skills needed for success in school. MOE [19]. This study examined the effect of differentiating reading instruction training on prospective teachers’ ability to meet students’ needs. Prospective teachers placed in primary schools of Trinidad and Tobago (T&T) participated in a two-weeks practicum field teaching exercise focusing on reading comprehension. The study used a mixed methods research design, which triangulated a survey instrument and prospective teachers’ reflections, with their field teaching scores. Prospective teachers received intense training in differentiated instruction. We show in this study that prospective teachers’ abilities to meet students’ needs in reading greatly improved with differentiated instruction training in reading structures by both quantitative and qualitative means.

1. Introduction

Gamse [10] states that the ability to read and comprehend text well is at the heart of educational attainment and, as such, is central to all children’s primary school success. Yet, success in primary school inexplicably escapes many children.

The motivation for this study stemmed from specific weaknesses analyzed in student outcomes and observations of classroom practices during practicum sessions. Of major concern is the fact that 47.5% of our students are not able to meet benchmarks in reading comprehension, as measured by MOE National Tests [19]. Furthermore, while on field practice it has been observed during the reading block, that teachers and practicing teachers in primary schools continue to give whole group instruction with little or no differentiated instruction being given to students at their instructional level, including those students that are at-risk for failure, or those that are accelerating in reading. Overall, the statistics show that students in some primary or special schools of Trinidad and Tobago, continue to fail in basic areas of reading (vocabulary and comprehension) (MOE, [19]).

In response to the student data and the observations of methods employed by our teachers, a decision was taken to conduct a study with prospective teachers in the special needs specialization in differentiating reading using assessment data to group and match instructions to meet the needs of students in the content area of reading. Prospective teachers in the sample group attended eight weeks, six-hour classroom instruction training sessions (C), split between two scheduled courses – Reading (SPED3006) and Practicum (PRAC3002), which gave them systematic and explicit instruction in: the administration of Ekwall/Shanker Reading Inventory 6/E, (Shanker & Cockrum, [7]), unit and lesson planning using the new MOE English Language Arts integrated, thematic curriculum (MOE, [19]), and alternative structures for teaching reading – shared reading, guided reading and skills-focused lessons. This was followed by a two-week supervised field practice (FP), culminating with two weeks reflection/instruction (R/I) sessions. Alternative structures for differentiating reading were shared reading lessons for whole group instruction, and guided reading and skills-focused lessons for engagement in small groups (Table 2).

2. Purpose of the Study

The purpose of the study is to determine whether shared reading for whole group instruction and guided reading or skills-focused lessons for small group teacher-led instruction training improves the ability of prospective teachers to appropriately meet the needs of students, especially those at-risk for reading failure.

3. Literature Review
3.1 Differentiation

Differentiation is a way of teaching; it’s not a program or package of worksheets. It asks teachers to know their students well so they can provide each one with experiences and tasks that will improve learning (Robb, [20]). What Works Clearing House, [21] recommends that schools provide differentiated reading instruction for all students based on assessments of students’ current reading levels.

3.2. Differentiated Instruction

Differentiated instruction is matching instruction to meet the different needs of learners in a given classroom. The range of instructional need within one classroom is large. In order to accommodate these instructional needs, it is recommended that teachers plan for small group, differentiated instruction and ample student practice opportunities in the form of Reading Centers (Kosanovich et. al.[18]).

According to Hertberg-Davis & Brighton, [22], cited in Joseph and John, [13], studies show that many teachers experience obstacles in attempting to integrate differentiation into the classroom. These include: a general lack of administrative support, fear for lowering student test scores by deviating from prescribed curriculum; and challenge of dealing with student behavioural problems. However, differentiation when strategically and systematically done will enable all students to meet their potential. It is critical for teachers to alter small group instruction based on the instructional need of students. It is recommended that teachers increase their knowledge and proficiency using at least two types of lesson structures: guided reading and skills-focused lessons. (Kosanovich, [15]).

What Works Clearing House, [21] suggests the following steps when implementing a program to assist students at-risk for reading failure provide training: (1) for teachers on how to collect and interpret student data on reading efficiently and reliably and (2) on how to use diagnostic measures, especially measures for those students experiencing difficulty. Informal assessments can help educators make better-informed decisions.

Develop data-driven decision rules for providing differentiated instruction to students at varied reading proficiency levels for part of the day. According to the research, independent silent reading activities should be gradually increased as reading skills improve. Data on student performance (a measure of word identification fluency or fluency in reading connected text) should inform this decision. For many grade 1 students, independent silent reading time would be minimal during the first few months of the year. Student-managed activities should be introduced gradually and should focus only on skills students have mastered (What Works Clearing House, [21]).

Differentiate instruction - including varying time, content, and degree of support and scaffolding - based on students' assessed skills. Research believes that as students fall below grade expectations, more time in explicit instruction provided by the teacher in small groups is critical to bring their skills to grade level (What Works Clearing House, [21]).

This study, based on best practices, utilized a systematic, explicit approach to differentiating instruction in reading. It followed a procedural approach, which is an adjustment to (Ankrum, [3]) guidelines:

3.4. Assessment

Ankrum, [3] cited that Clay, 2002 states that the primary concern in reading instruction should be the needs of each child. Taylor, [17] reiterates that these needs can only be discovered through assessment so that teaching decisions can be made. However, teachers must also be empowered to analyze the information from screening and diagnosis to obtain a better fit to match instruction with needs.

3.5. Grouping Decisions

Once assessment data is analyzed, teachers must carefully consider the type of grouping arrangements that will enable students to maximize their potential. Ankrum, [3] further states that it is best to employ a variety of grouping arrangements throughout the instructional block – whole group, so that all children can gain the needed exposure to curriculum-based, grade-level appropriate skills and strategies. Teachers during whole group instruction can use structures as shared reading or interactive read aloud to provide explicit teaching through modeling for all students in the class. However whole group teaching structures will not meet the needs of all of the students in the class, so it is important for teachers to differentiate and engage students in other ways. Ankrum, [3] stresses that homogeneous, needs-based groups e.g. small-groups, peer groups, and one-one group which may be teacher-led to help meet the needs of all students in the classroom, should be formed based on the evidence provided by the diagnostic assessment conducted in the first step of the procedural.
3.6. Adjusting/Managing the classroom environment

One of the challenges identified in the literature is that of making adjustments to the classroom environment to enable teachers to teach small groups and at the same time, manage the independent groups in a class. Moody, [16] repeats that it is important for teachers to find methods to keep all children actively engaged in meaningful ways while meeting the needs of small groups or individual learners. There are several ways in which this can be done, however, teachers must choose the techniques to adjusting and managing the learning environment that match their teaching style.

3.7. Materials

As stated in Allington, [2] and Ankrum, [3] materials chosen for reading instruction must match the instructional reading level of the students in the small group. Teachers must use a variety of assessments for making their choices. The book selected and the instructional focus should support the development of reading skills and strategies needed by that particular group.

3.8. Guided Reading

Guided reading is small-group reading instruction designed to provide differentiated teaching that supports students in developing reading proficiency (Fountas & Pinnell, [9]). The teacher uses a tightly structured framework that allows for the incorporation of several research-based approaches into a coordinated whole. During a guided reading lesson students are engaged in reading and talking (and sometimes writing) about an interesting and engaging variety of fiction and nonfiction texts. For the teacher, guided reading means taking the opportunity for careful text selection and intentional and intensive teaching of systems of strategic activity for proficient reading. (Fountas & Pinnell, [8]).

After systematic assessment to determine student’s strengths and needs, they are grouped for efficient reading instruction. While individuals always vary, the students in the group are alike enough that they can be effectively taught in a group. Texts are selected from a collection arranged along a gradient of difficulty. The teacher selects a text that students will be able to process successfully with instruction (Fountas & Pinnell, [9]).

3.9. Skilled-Focused Lessons

Skills-Focused Lessons are teacher-planned lessons that provide the opportunity for more systematic and focused practice on a relatively small number of critical elements at a time (e.g., unknown consonant digraphs, vowel teams, r-controlled vowels, etc.). They would also provide the opportunity for sustained, systematic, and interesting “word work” in order to build fluency and confidence in the application of these skills to reading words. (Beck, [5]). These lessons could draw upon lesson formats and content from the core reading program to reinforce knowledge and skill that was only weakly learned when it was taught in the whole group format. In schools that serve a high proportion of poor and minority students, it does not seem reasonable to expect that most students will be able to master many of the skills they are taught if they are only presented and explained during whole group instruction. Many students will need explicit re-teaching of both knowledge elements and skills, as well as extended opportunities to practice the application of these skills in a variety of contexts ranging from individual words, to phrases, to sentences, to connected text. (Beck, [4]).

Skills-Focused Lessons will be successful to the extent that they are fast-paced, interactive, and targeted appropriately on critical skills for each reading group. There is not one set format that a Skills-Focused Lesson follows. Rather, these lessons could be closely aligned with results from the assessment tool used e.g. IRI Emergent Reader assessment, DIBELS® DRA2® (particularly for letter knowledge, phonemic awareness, phonemic decoding, and reading fluency) as well as other assessment data.

3.10. Shared reading Lessons

Shared reading offers rich instructional opportunities as teachers share in the workload while students access the text. Embedded in the middle of the gradual release of responsibility, shared reading has elements of a read-aloud and guided reading, but it’s most valuable for explicit demonstration opportunities with shared text.

Holdaway, [11] explains that shared reading connects students through shared feelings and shared experiences. Thus shared reading is more than a lesson; it becomes a shared event. Holdaway, [11] elaborates on the learning opportunities innate in shared learning involving common language that is meaningful to the students. Justice, [14] expand this idea, explaining that in shared reading the teacher intentionally encourages and supports the student’s engagement and participation. Meanwhile, the
student gathers meaning and constructs knowledge. While it originates with young children, shared reading has potential through middle grades and high school (Allen, [1]). Shared reading is usually instructionally dense because it is the step in the instructional continuum just before guided reading (Burkins, [6]).

This study was designed to validate the findings of the research on differentiating reading instructions using alternative structures – shared, guided and skills-focused lessons in developing countries as T & T. It shows that when teachers can match needs with instruction, students are more engaged and significant improvement in meeting benchmark goals can be attained in a short period of time given training and support.

4. Methodology

4.1. Research Site

This study was conducted in nine (9) of 537 primary schools in a school district located in the Southern Caribbean. The 537 schools are categorized as Government-led, Denominational-led and Privately owned (Table 1). Twenty-six percent (26%) are Government-led, twenty-two percent (22%) Roman Catholic, eleven percent (11%) Anglican, eight percent (8%) Hindu, three percent (3%) Muslim, thirteen percent (13%) Presbyterian, two percent (2%) Vedic, two percent (2%) Methodist, three percent (3%) Seven-Day Adventists, one percent (1%) Baptist, ten percent (10%) Private, and one percent (1%) Moravian and Kabir Panth Association (KPA) schools. The nine primary schools contained eight inclusive schools, five denominational-led, two government-led, one privately owned and one government-led special school. The site included nine (9) principals, twenty-nine (29) directing teachers, one hundred twenty-four (124) pupils in twenty-nine (29) targeted primary classes from Infants 1 to Standard 3. These schools were located in three of the eight local school areas – two in an urban area of the school district, two in suburban and five in rural areas. Four of the schools were considered to be making adequate progress (passing) with respect to the National Test benchmark assessment data, four were considered not making progress (failing) while one (the special school) did not participate in the National Testing 2013 system.

4.2. Research question

Will differentiated instruction training improve prospective teachers’ ability to meet the needs of students during their field experience?

4.3. Hypothesis

Prospective teachers will meet the needs of students in reading better, if given appropriate training and support.

4.4. Research Design

4.4.1. Mixed-method research. This study used a mixed-method design, which triangulated the qualitative data collected from surveys conducted with prospective teachers, and prospective teachers’ perceptions of their own abilities, or lack thereof to meet the needs of students in reading; with quantitative data through a pretest/posttest measuring of three standardized scores (presentations/demonstrations, ongoing preparation, and examined field practice) that intimates and measures on the students’ abilities.

4.4.2. Dependent variable(s). The dependent variable in this study is prospective teachers’ abilities to meet student needs in reading, operationalized by scores in student performance obtained from presentations/demonstrations, ongoing preparation, and examined field practice; triangulated with data from prospective teachers’ perceptions of themselves shown in surveys and reflection notes.

4.4.3. Independent variable. The independent variable is differentiated instruction training in {diagnostic reading assessment, guided reading, shared reading and skills-focused lessons}.

4.5. Population and Sample

All prospective year-3 and year-4 teachers (in-service and pre-service) completing a Bachelor of Education degree in Special Needs and Primary Education at the University of Trinidad and Tobago (UTT), assigned to the 537 Government-led, denominational board-led and privately run, primary and special school settings (Table 1). The research used a quota sampling method. The sample comprised of twenty-nine (29) year-3 prospective teachers pursuing a Bachelor of Education degree with specialization in Special Needs and primary education.

5. Intervention
Scheduled training in ‘how to’ differentiate reading instruction using:
- A diagnostic reading assessment tool (Ekwall/Shanker Reading Inventory)
- assessment data to determine students’ needs
- flexible group formats (whole group, individual groups or small groups by instructional levels for teacher-led instruction)
- matched materials and alternative lesson structures –
  - shared reading
  - guided reading and
  - skills-focused lessons

5.1. Procedure

Training schedule (Table 2) for the study included seven (7) in-house, three-hour practicum classroom sessions (PRAC3002/Practicum VI). One day was scheduled for field orientation in their assigned schools to enable prospective teachers to collect information about the school, classroom and curriculum content choices of their respective directing teachers. Subjects were encouraged to make relevant arrangements to conduct diagnostic reading assessment for the students in the class.

The schedule also incorporated ten (10) in-class three-hour reading sessions from an advanced language arts course (SPED3006/Teaching English Language Arts (ELA) to Students with mild to moderate disabilities) which provided intense training prior to and after field teaching.

Training included:
1. interactive training in a diagnostic assessment tool of choice – Ekwall/Shanker Reading Inventory (Shanker & Cockrum, [7]).
2. unit and lesson planning in shared reading, guided reading and skills-focused lessons.
3. interactive training in grouping techniques

Prospective teachers were then placed in assigned schools for two weeks field experience with the aim to deliver the planned alternative lessons structures – focusing on shared reading for whole group instruction and guided reading or skills-focused lessons for small groups.

The final stage of the study focused on in-house reflection activities, and on charting of prospective teachers’ professional growth for the way forward – Year 4 practicum sessions 2014-2015.

Table 2 shows the training schedule utilized to provide training on how to:
1. use diagnostic measures, especially measures for those students experiencing difficulty. Informal assessments can help educators make better-informed decisions.
2. use data on student performance (a measure of word identification fluency or fluency in reading connected text) should inform this decision
3. differentiate instruction — including varying time, content, and degree of support and scaffolding — based on students’ assessed skills.

<table>
<thead>
<tr>
<th>Courses</th>
<th>PRAC3002</th>
<th>SPED3006</th>
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<td>C C C F C C F F R R</td>
<td>C C C C C C F F C C</td>
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<tr>
<td>1 2 3 4 5 6 7 8 9 1 1 1</td>
<td>O P P /I /I</td>
<td>P P</td>
</tr>
</tbody>
</table>

6. Analysis

6.1. Quantitative analysis

A quantitative analysis for differentiated instruction training’s effect was analyzed using a two-tailed t test. Table 2 illustrates the results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>P value</th>
<th>Alternative hypothesis is true</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentations/lessons</td>
<td>p-value = 3.849e-08</td>
<td>Means ≠0 to 95% Confidence Interval</td>
</tr>
<tr>
<td>Planning preparation</td>
<td>p-value = 0.007964</td>
<td>Means ≠0 to 95% Confidence Interval</td>
</tr>
<tr>
<td>Examined field practice</td>
<td>p-value = 0.0002154</td>
<td>Means ≠0 to 95% Confidence Interval</td>
</tr>
</tbody>
</table>
This quantitative data analysis was triangulated with the qualitative data gathered from a survey instrument and the prospective teachers' reflections. It was evident that teachers followed the procedural guidelines given during training.

They were able to:
1. administer and use diagnostic reading assessment to determine students' needs,
2. form semi-permanent groups by homogenous instructional levels,
3. carefully selected matched instructional materials, and
4. deliver alternate lesson structures – guided reading when students can read, or skills-focus instruction when students are emergent readers.
5. use shared reading lessons to engage the whole group.

Prospective teachers perceived that they met the needs of students in growth of vocabulary, comprehension and understanding, relevant instructional material, various skills-focused development and addressing personal weaknesses illustrated in Table 4.

<table>
<thead>
<tr>
<th>Needs met</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in vocabulary</td>
<td>2</td>
</tr>
<tr>
<td>Comprehension &amp; Understanding</td>
<td>1</td>
</tr>
<tr>
<td>Relevant Instructional Material</td>
<td>1</td>
</tr>
<tr>
<td>Various Skill Development</td>
<td>2</td>
</tr>
<tr>
<td>Addressing Personal Weaknesses</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>

| Table 4: Challenges encountered during Guided Reading |
| --- | --- | --- |
| | # | % |
| Classroom Management | 11 | 61.1 |
| Pacing Lesson | 1 | 5.6 |
| Time Management | 5 | 27.8 |
| Lack of resources | 1 | 5.6 |
| Total | 18 | 100.0 |

Table 5 shows the breakdown of the categories of the various challenges in Guided Reading as identified by prospective teachers. Sixty-one percent (61%) identified Classroom Management, twenty-eight percent (28%) Time Management, six percent (6%) Pacing the Lesson and Lack of Resources.

| Table 5: Challenges encountered Shared Reading |
| --- | --- | --- |
| | # | % |
| Valid Capturing Students’ Attention | 4 | 22.2 |
| Staying on Task | 2 | 11.1 |
| Time Management | 6 | 33.3 |
| Book was too small | 1 | 5.6 |
| Managing Levels | 1 | 5.6 |
| Disruptive Students | 2 | 11.1 |
| Lack of Resources | 1 | 5.6 |
| Total | 17 | 94.4 |
| Missing System | 1 | 5.6 |
| Total | 18 | 100.0 |

6.1. Prospective Teachers comments

6.1.1 Participant 1: “Practicum 6 was an exhilarating experience! My greatest success came through a Reading breakthrough. After conducting Ekwall/Shankar’s Reading Inventory, I noticed that quite a few students were not at their instructional reading level, and were struggling within the classroom. By the time I had completed one shared and one guided reading lesson, students began to comment that they never knew Reading could be so much fun. I was able to see some growth in students, in the short period and was astonished to see that they began to make links with their Reading to other subjects.

This was very emotional for me, since having previously taught, I had noticed that children on the whole could not read and comprehend, and it was hampering their performance in other subject areas. Seeing the reaction of my students to this “new way of reading” was truly rewarding.

In my opinion, Guided Reading should be conducted in schools on a daily basis, in a block period/form. This should be a mandatory part of our Year 4 practicum, since it was evidenced that the results are positive.”

6.1.2 Participant 2: “I particularly liked guided reading because I can focus on the diverse needs of the children and also work with some of them individually.”

6.1.3 Participant 3: “Shared and Guided reading are two tools any teacher can use to differentiate his/her lesson where tangible results are noticeable.”
6.1.4. Participant 4: “Shared reading and guided reading should be done with small group instruction, that way you are able to see the exact level students are at and also who needs to be worked on.”

6.1.5 Participant 5: “I was fortunate to be placed in a class of twenty-nine well-disciplined and loving students. As a reward of using the explicit and direct differentiation method of instruction, the students were very receptive to my teaching method and positive classroom climate was established. This method of instruction allowed me to use different strategies to meet the needs and instructional level of every student in order to maximize their learning potential.”

7. Findings

7.1. Training

Training prospective teachers to use diagnostic tools in reading to facilitate small group instruction instead of teaching the whole class “one size, fit all” approach significantly improved their performance.

7.2. Grouping

Grouping students in small instructional level groups and focusing on students needs enabled prospective teachers to better meet the needs of the children they teach.

7.3. Alternative strategies

Using shared reading as a whole group approach enable prospective teachers to engage their students more as their needs were met.

7.4. Additional support

Prospective teachers reported that they needed additional support in adjusting the learning environment while conducting small group teacher-led activities.

Prospective teachers needed additional support to manage their time when differentiating reading instruction using small teacher-led groups.

8. Conclusion/Recommendations

Giving training and continuous support to prospective teachers in diagnostic assessment and analysis, grouping formats such as small groups by instructional reading levels, alternative lesson structures such as shared reading, guided reading and skills-focused lessons positively impact their performance, empowering them to better meet the needs of the students that they teach. Diagnostic assessment helped them to identify needs of children. Small-group instruction has shown to be difficult for many practicing teachers while at the same time managing the other groups in the classroom. However, using shared reading, with the new thematic integrative curriculum (MOE, [19]) and then assigning activities for independently led stations have proven to be manageable and appropriate for prospective teachers approach to meet the needs and engage all students.

Based on the results of the study the following challenges were encountered by prospective teachers in several of the schools. These challenges will be addressed in a future study.

1. Management of independent groups while the teacher conducts instructions to small groups in guided reading.
2. Time management during shared reading.

9. References


The Effects of Individualized and Guided Discovery Instructional Techniques on the Achievements of Special Needs Students (Underachievers) in Chemistry

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Abstract

The Science subjects constitute a major component of the subjects offered in most post-primary institutions in Nigeria today. These subjects are so important that the National Policy on Education, states in specific terms that “Secondary School Education shall provide trained manpower in the applied sciences and technology” (Federal Republic of Nigeria, 2004). The National Policy on Education further states that science subjects constitute part of the core subjects at both junior and senior secondary school levels. The importance attached to science by the Federal Government could be due to the general belief that science is capable of improving and changing skills, attitudes and cognition by increasing pupils’ store of knowledge about themselves, their environment and their world.

1. Introduction

The importance of Chemistry in the development of any nation cannot be underrated especially in Nigeria where the national income rests on petroleum and petrochemical industries. The performance of Chemistry students at the secondary and tertiary levels has not been encouraging over the years. Analysis of students’ performance in the sciences at Senior School Certificate (SSCE) level as noted by revealed that between 1980 and 1991, the annual average pass rate at credit level (grade 1-6) in Chemistry was 15.4% while the absolute failures rate was 61.82% [1].

Most nations develop because of the dominant role played by science. Science has been instrumental to the solution of the socio-economic problems facing nations like Nigeria such problems include hunger, unemployment and population explosion [2]. However, Nigeria has been making frantic efforts to create scientific and technological awareness in her citizenry [3].

Methodology is very vital in any teaching and learning process. The method adopted by the teacher may promote or hinder learning; hence all over the world there has been an increasing search for means of improving and promoting teaching and learning especially the teaching and learning of Chemistry and other sciences. It is believed that this search will promote better understanding of science concepts and encourage greater scientific and technological advancements. This search has led to lots of research done by science educators towards making science education better, especially in the area of teaching students with the notion of discovery, engaging in critical thinking, questioning and developing problem-solving skills. Therefore, the conclusion for science and technology should be developed to educate science-literate students to enable them inquire, discover and solve problems facing them.

Many developed and developing countries of the world have introduced many educational reforms especially in the field of science and technology. Some countries like Japan, the United States and Britain have achieved good results and have become self-reliant [4]. Unfortunately Nigeria, despite the reforms and innovations, such as the 6-3-3-4 system of education, the Universal Basic Education (UBE), Education for All (EFA), the introduction of Guidance and Counseling in schools expanded curriculum for example, the study of introductory technology, even recently entrepreneurship education, not much success has been recorded. Science education has not succeeded in producing a self-reliant nation. The conventional methods of teaching and learning of science, in particular chemistry in Nigerian schools has been criticized as often resulting in poor students’ performance. These researchers identified a number of factors as being responsible for the observed trend. It is possible that these factors act singly or in combination, affecting students achievement. Such factors as identified by the researchers include students’ poor academic background, insufficient qualified teachers, unmotivated teachers and students, inappropriate teaching and learning strategies and lack of innovative instructional strategies. The need to foster students’ achievement in chemistry has given rise to innovative approaches that provide room for
students’ active participation in the lessons. In the spirit of Education For All, nobody is supposed to be left out or left behind as an underachiever or a low achiever hence the quest for strategies of helping them achieve better or fall in line with their peers.

2. Concept of Underachievement

Underachievement is an umbrella term that denotes inadequate performance in a specific area of activity. The term usually refers to lack of good academic success indicating that a student is performing below expectations. Bernard, Hall and Scott [5] describe academic underachievement as a situation where non-disruptive, co-operative and often quiet but able students become anonymous within the classroom and under-perform in relation to their academic potential. This implies that the student is of high ability and based on that, there is an expected level of achievement from him, which he is not meeting. In line with this assertion, McCall, Evalm and Kratzer [6] acknowledged that underachievers are young persons who perform more poorly in school than one would expect on the basis of their mental abilities.

2.1 Types of Underachievers

To be able to identify and handle this problem, underachievers have been classified using a clinically based diagnostic approach in conjunction with diagnostic criteria form Diagnostic and Statistical Manual of Mental Disorder (DSM) to identify and describe five different types of underachievement as predicted by development theory, namely:

i. The overanxious disorder underachievers
ii. Conduct disorder underachievers
iii. Academic problem underachievers
iv. Identity disorder underachievers
v. The oppositional defiant disorder underachievers.

2.2 Characteristics of Underachievers

Some of the characteristics of underachievers in relation to academic achievement include [8]:

i. Poor in test performance
ii. At or below levels in basic skills
iii. Daily work not completed or poorly done
iv. Shows discrepancy between oral and written communication and
v. Has little academic initiative.
vii. Interventions in reversing underachievement fall into two categories namely:

ii. Counseling and instructional interventions

The self-selected enrichment projects as a systematic intervention for underachieving gifted students. The approach targets students’ strength and interest in order to help them reverse their underachievement problems in academics. Renzulli used 17 underachievers; allowed them each, a personal choice of any of four enrichment projects. They found five major features of the enrichment process to contribute to its success. They include relationship with the teachers, use of self regulation strategies, the opportunity to investigate topics related to their underachievement, the opportunity to work in an area of interest in a preferred learning style and the time to interact with an appropriate poor group. The results of the investigation showed some positive gains in both behaviour and achievement during the course of the school years. Eleven of the seventeen participants showed improved achievement. 13 out of the 17 students appeared to exert more effort within their classes; while 4 students showed marked improvement in their class behaviour. The results of this research showed that flexible student centered enrichment approach might help reverse underachievement in gifted students.

3. Individualized Method of Teaching

A class of students is a group of distinct and individual children, each of whom has his/her own unique characteristics such as interest, disposition and rate of learning. Individualized approach is a strategy that ensures that the individual characteristics of all learners are taken into consideration during the process of teaching and learning. Individualized method of teaching takes cognizance of the existence of individual differences in the classroom. Even though students participate in the same curriculum package, they do so at their own different rates, interests and disposition.

Ughamadu [8] explains that “it is a situation where same curriculum is presented to all the students but with the provision of different instructional methods depending on each students learning style”. This process of teaching is in line with students previously identified learning characteristics such as ability problem, entry behavior, background and aspirations. Individualized method of teaching is, therefore, planned to meet
each student’s needs, aspirations and problems. Though each student may approach his/her learning independently, each individual is expected to complete the learning task presented.

Ughamadu [8] identified two approaches often employed in individualized method of teaching as ability grouping and sub individual study. Often times, class streams are organized according to the academic ability of students. This is simply a situation where students with similar learning characteristics are put together as a class or stream. Similar curriculum is planned for them in accordance with the school syllabus.

Supervised individual study refers to the situation where the individual is guided by the teacher to continue in the learning task. The rate and interest of each individual is taken into consideration. Each individual, whether fast or slow in learning is always engaged and challenged in the additional learning material. The fast learners have additional learning activities while the slow ones have remedial programs/courses integrated into their curriculum. At each point in time, the learner is encouraged to excel.

Individualized method of teaching has its advantages and disadvantages. These among other things include that it provides remedial curriculum package for the slow learners to enable them excel and continuous challenging curriculum package for the fast learners to enable them progress without delay or setback. Its disadvantages include that it does not conform to the school timetable stipulation.

4. Discovery Method of Teaching

The act of discovery of new facts, concepts, rules, knowledge, solution, problems and skills is the thrust of this teaching method. To that effect, teachers who employ discovery method of teaching simply avail their students ample opportunities to find out, establish, investigate explore and make discoveries. Thus the students are encouraged and assisted to seek and find the solution to the problems focused upon.

Discovery method is usually employed in teaching science, mathematics, technology, and agriculture. The skills of observation, listening, measurement, application, analysis, synthesis and evaluation are employed for effective discovery and interpretation of data. Kanno [9] identifies two types of discovery method of teaching: guided and unguided discovery. Guided discovery employs either the inductive or deductive approach to learning.

Discovery is a way from the unknown to the known by the learners themselves. The active participation of the learner in the learning process is called discovery learning [10, 11, 12]. In discovery learning, students construct knowledge based on new information and data collected are used by them in an explorative learning environment [13].

Bruner [10] states that learning happens by discovery, which prioritizes reflection, thinking, experimenting and exploring. Discovery instructional approach to education is more closely aligned with constructivist concepts of exploration, discovery and invention [14]. Constructivist theory is the basis for discovery learning. Under both constructivism and discovery learning, educators subscribe to the idea that “knowledge cannot be transferred from one person to another” [15]. Instead a student needs to experience an event in order to make it truly meaningful. In a constructivist classroom, the role of the teacher is less defined. The teacher is no longer the focal point of the classroom. Instead the would-be instructor is now seen as a “facilitator, mentor, coach or consultant” [16]. Additionally, the role and expectations of the students are transformed. Under constructivist theory, the emphasis is not on the amount of content that a student manages to retain, but is on the manner in which the students learn, or construct knowledge [16].

Urevbu [17] stated that the students’ active participation in a lesson aids understanding and achievement. Jerkin and Dodds [18] confirmed that statement when they said that schools are provided with curricular that have to be learnt and which are within the limits of the learners understanding. The teacher should deliver this using the appropriate instructional strategies and relevant instructional material to enable the learner achieve optimally. Obviously, when the teacher meaningfully imparts his lesson and allows active participation on the part of the students, there is bound to be high degree of achievement and also improved performance.

The social milieu, aspirations and rewards for males and females in our society also have some effects on their respective intellectual development. The reluctance to work hard by the majority of females in our society should have some effect on their respective intellectual development. Hence, girls differ from boys in the age at which they develop logical thinking [19].

The aim of the present study was therefore, to discover which of the instructional strategies of individualized and guided discovery will result to better achievement in male and female underachievers in chemistry. There is therefore the need to determine the effect of individualized and guided discovery instructional strategies on students achievement in chemistry.

5. Purpose of the Study

The study sought to determine the effects of individualized and guided discovery instruction techniques on the academic achievement of underachievers in chemistry.
Also, the study sought to ascertain the influence of gender on the academic achievements of underachievers in chemistry.

5.1 Research Questions

The following research questions guided the study:

i. What are the differences in the mean achievement scores of underachievers taught with individualized, guided discovery and conventional instructional strategies?

ii. What is the relative mean achievement score difference between the male and female underachievers in the chemistry post-test?

5.2 Hypotheses

The following hypotheses were tested at 0.05 level of significance.

H₁: There are no significant differences among the mean achievement scores of underachievers taught with individualized guided discovery and conventional instructional strategies.

H₂: There is no significant difference between the mean achievement scores of male and female underachievers in post-treatment chemistry test.

6. Research Method

The study adopted a quasi-experimental pre-test, post-test, non-equivalent control group design involving two experimental groups and one control group. The sample comprised senior secondary class two (SS 11) Chemistry students. The underachievers were selected by administering a chemistry achievement test on all the students in the five sampled senior secondary schools in Abia State, Nigeria. Out of a population of 375 students, 90 of them scored below 50% in the test and so were tagged underachievers. These were randomly grouped into experimental group I, experimental group II and control group.

The data was collected using two instruments, the pre-achievement test in chemistry and post-achievement test in chemistry which was duly validated by three research experts. The regular trained chemistry teacher subjected the experimental groups to instructions on chemical equilibrium using individualized and guided discovery instructional strategies while the control group was taught using conventional strategy. The pre-test was administered to all groups (experimental and control groups) before the commencement of the treatment. Treatment was administered for a period of six weeks after which a post-achievement test in Chemistry was administered to the subjects. The test-retest technique was used to determine the reliability co-efficient of the instrument and a reliability coefficient of 0.71 was obtained. Data collected were analyzed using mean, standard deviation and analysis of covariance (ANCOVA). Specifically, mean and standard deviation were used to answer the research questions while ANCOVA was used to test the hypotheses at 0.05 level of significance.

7. Research Question

Question One:

What are the differences in the mean achievement scores of students taught with individualized, guided discovery and conventional instructional strategies?

Table 1: Relative Mean Scores of students taught with individualized, guided discovery and conventional instructional strategies in Chemistry post-test.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean (x̄)</th>
<th>SD</th>
<th>Cases (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualized instruction</td>
<td>14.14</td>
<td>3.98</td>
<td>30</td>
</tr>
<tr>
<td>Guided discovery instruction</td>
<td>17.51</td>
<td>4.45</td>
<td>30</td>
</tr>
<tr>
<td>Conventional instruction</td>
<td>14.29</td>
<td>3.65</td>
<td>30</td>
</tr>
<tr>
<td>Overall</td>
<td>15.31</td>
<td>4.42</td>
<td>90</td>
</tr>
</tbody>
</table>

Table 1 above shows that mean scores of students taught using individualized instructional strategy was 14.14 with standard deviation of 3.98. The table also shows that the mean score of students taught the same topics using guided discovery strategy was 17.51 with standard deviation of 4.45. Students taught with conventional or expository, strategy had a mean score of 14.29 and standard deviation of 3.65.

Generally, the results as shown in Table 1 indicate that the highest mean score was recorded by underachievers taught with guided discovery followed by that of underachievers taught with the conventional strategy. The least mean score was obtained by underachievers taught with individualized instructional strategy.

Standard deviation of underachievers’ scores in the Chemistry post-test for guided individualized, guided discovery and conventional instructional strategy are 3.98, 4.45 and 3.65 respectively. Thus there are more extreme scores in the guided discovery group (SD = 4.45) than in the
individualized group (SD = 3.98). The least standard deviation (3.65) was obtained for students taught with conventional method indicating that the students’ individual scores were more clustered around the mean than is the case with individualized and guided discovery strategies.

Research Question Two:

What is the relative mean achievement score difference between male and female underachievers in the Chemistry post-test?

Table 2: Achievement scores of male and female underachievers on the Chemistry post–test.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Mean</th>
<th>SD</th>
<th>Cases (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>13.51</td>
<td>4.00</td>
<td>55</td>
</tr>
<tr>
<td>Female</td>
<td>17.11</td>
<td>4.82</td>
<td>35</td>
</tr>
</tbody>
</table>

Table 2 shows difference in mean score of male and female underachievers in Chemistry post-test. Male underachievers’ score was 13.51 while that of their female counterparts was 17.11. This shows that female underachievers generally achieved higher than the male underachievers in the post-test. However the standard deviation for male and female underachieves are 4.00 and 4.82 respectively, indicating that the individual scores of male under achievers are more clustered around the mean than those of their female counterparts.

Hypotheses

H₁: There are no significant differences among the mean achievement scores of underachievers taught with individualized guided discovery and conventional instructional strategies in the Chemistry achievement test.

Table 3: Analysis of covariance of underachievers Mean Achievement scores in Chemistry Achievement test.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean square</th>
<th>F-cal</th>
<th>Fcint</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>3262.459</td>
<td>6</td>
<td>543.743</td>
<td>35.062</td>
<td>3.84</td>
<td>Sig</td>
</tr>
<tr>
<td>Covariate</td>
<td>307.420</td>
<td>1</td>
<td>307.420</td>
<td>19.823</td>
<td>3.84</td>
<td>Sig</td>
</tr>
<tr>
<td>Treatment</td>
<td>924.293</td>
<td>2</td>
<td>462.147</td>
<td>28.401</td>
<td>3.84</td>
<td>Sig</td>
</tr>
<tr>
<td>Gender</td>
<td>1076.647</td>
<td>1</td>
<td>1076.647</td>
<td>70.685</td>
<td>3.84</td>
<td>Sig</td>
</tr>
<tr>
<td>Treatment Gender</td>
<td>602.601</td>
<td>2</td>
<td>301.301</td>
<td>19.429</td>
<td>3.84</td>
<td>Sig</td>
</tr>
<tr>
<td>(2 way interaction)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>6746.002</td>
<td>435</td>
<td>15.508</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>112542.00</td>
<td>422</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This value (70.685) is greater than the critical f-value of 3.84 at 0.05 level of significance, the null hypothesis is rejected. This means that a significant difference exists in the mean achievement scores of male and female underachievers in the post test. The difference as shown in table 2 is in favour of female underachievers.

8. Discussion

Results of data analysis (Table 1 and 3) have shown that underachievers taught with individualized and guided discovery instructional strategies performed significantly better on the achievement test than their counterparts who were taught using the convention/expository strategy. This result is established the relative efficacy of individualized and guided discovery instructional strategies in fostering students achievement in school subjects relative to
the conventional method. Underachievers taught using individualized strategy achieved higher than those taught with guided discovery instructional strategy (Table 1) which may well be indicative of the demand each of the methods make of underachievers’ learning processes. While the guided discovery instructional strategy suggests that the learner is not provided with the target information or conceptual understanding and must find it independently and only with the provided materials, individualized instruction strategy avails underachievers of the opportunity to select and design problems that demand from the learner acquisition of critical knowledge, problem solving proficiency, self directed learning strategies and team participation skills.

As indicated in Table 2, the mean achievement scores of female students/underachievers was found to be significantly greater than that of their male counterparts, irrespective of the strategy or method employed in teaching them the same Chemistry topics. It was however, found out that female underachievers in the guided individualized group achieved significantly higher than those in the other two groups (discovery and conventional groups). The observed female superiority in achievement established the fact that females are superior to their male counterparts especially in linguistic and verbal studies. It however differs from the results of studies, which found that male students achieved significantly higher than female students in science and mathematics.

The findings of this study deviated from the already established pattern of male superiority in Chemistry achievement. This may be linked to the fact that none of the earlier works cited employed individualized on guided discovery strategies in the teaching of Chemistry and other science subjects. For example Anyafuluode [4] used problem based and discovery based. Given by the revelation by Sternberg and Berstein [20] that no innate difference exists between boys and girls in their intellectual abilities it may not be surprising to observe, in this study, that female underachievers out-performed their male counterparts in the achievement tests.

9. Conclusion

The findings of this study show that underachievers taught with individualized instruction strategy performed significantly better on the Chemistry achievement post test than both guided discovery and the control groups. Also, the mean achievement score of female underachievers was found to be significantly greater than that of their male counterparts irrespective of the instructional strategies used in teaching them.

10. Recommendations

The professional associations and government agencies whose responsibility it is to design and revise the curriculum for secondary schools should incorporate and emphasize the use of individualized instructional strategy in the teaching of senior secondary school Chemistry.

All science teachers (especially Chemistry teachers) should be encouraged to use individualized instructional strategy in teaching senior secondary school chemistry. The use of individualized instruction strategy should not be limited to chemistry as a subject, but should be incorporated in other science subjects.

11. References


Effect of Remedial Teaching Program on Performance of Pupils with Mathematics Difficulties in Lower Primary Schools n Butere District, Kenya

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Abstract

Mathematics skills are not only a basic requirement for every member of any society to productively engage in everyday activities but also a universal language that finds meaning in all cultures. It is not only a vital tool for the understanding and application of science and technology but also a great determinant of the kind of courses children take at different levels of learning. However, poor mathematics performance in national examinations has been of great concern. This paper presents results from a study that was conducted in Butere District in Kenya to investigate the effect of remedial teaching programme on performance of pupils with mathematics difficulties.

1. Introduction

Learning in the twenty first century does not only require to equip children with basic education in numeracy but also advanced complex mathematical skills for living and that can serve as a foundation for a successful future career in life (24). This is because mathematics is a universal language that has meaning in all cultures. Every culture, social class and ethnic group thinks about, record and communicate ideas through quantity (16). Consequently, mathematics is widely regarded as one of the most important subjects in the school curriculum.

According to (5) it would be very difficult perhaps impossible to live a normal life without making use of mathematical skills. This is because mathematics is used as a filter or hurdle for entry into not only to a good secondary school but is also in the selection of courses at the university and other institutions of higher learning (13). It is therefore, important that all students should have an opportunity and support to learn mathematics with depth and understanding. However, mathematics performance has consistently been very poor in national examinations in Kenya. The failure has consistently been above 50% and the case seems to worsen with time. For instance, the failure rate in mathematics at KCSE in 1999 was at 79% as reported by KNEC in (19). Explanation for this poor performance in mathematics in Kenya and other countries is attributed to a number of factors such as high teacher-pupil ratio, and poor teaching methods. The influence of mathematics difficulties may not have been considered yet it greatly impairs children’s performance in mathematics. Mathematics difficulties are widespread and occur in all cultures, nations and language groups (4). For instance, research studies done in the U.S by (13) and (22) revealed that 6-10% of children in the regular classrooms experience some form of Mathematics Difficulties. Other studies done by (12) and (14) indicated that five to eight percent of school age children in Israel and Europe respectively exhibit some form of Mathematics Difficulties (MD) and associated long term problems (10) & (11). A research study conducted by Behrangi (1997 cited in (2) on the prevalence of Mathematics Difficulties in primary schools (classes 1-5) in Tehran Iran and established that 5.2% of the children exhibited symptoms of Mathematics Difficulties. In India, a study conducted by (3) on educating children with mathematics difficulties had revealed that 4-15% of all children receiving primary education experienced some form of MD (9) & (21).
Mathematics Difficulties are persistent and may make the learners never to catch up with their normally achieving peers unless remedial teaching is done (13). Therefore, if no early intervention is given, children may go to school and come out unprepared for a career in life which in the long run may become a terrible waste and may become an impediment to children from meeting their career needs or rights in life. Hence the need for this study on whether there is remedial teaching for pupils with MD and how the remedial teaching was impacting on the mathematics performance of pupils with MD in Butete District.

A national survey conducted by (25) to assess the literacy and numeracy levels among Kenyan children age 6-16. They found out that almost half of class three pupils in Kenya could not compute class two sums. Also, about seven out of every ten pupils in lower primary schools lacked the necessary mathematics
skills to move to the next level. Consequently, many pupils were graduating from primary schools without the necessary mathematical skills to succeed in their future career pursuits. This state was attributed to the excessive use of teacher centered methodology, overcrowding in most classes and lack of adequate learning resources. In Butere, the study found out that about 22% of learners in the primary schools were experiencing Mathematics Difficulties.

The Kenya National Examination Council (15) conducted a national survey on the learning of sciences and mathematics which revealed that effective learning in lower primary schools was impeded by factors such as overcrowding in our public primary schools one class was holding as many as sixty children under one teacher. Secondly, most teachers in the regular classes lacked the necessary competencies to identify learners with special needs and provide early and effective remedial programmes for Mathematics Difficulties.

The consequences of Mathematics Difficulties are dire as revealed in a study conducted by (23). Mathematics difficulties cause low mathematics achievement which is not only serious for the learners’ everyday functioning but also affects their educational attainment. Mathematics difficulties make the learners develop fear for mathematics, limits their academic and career possibilities besides hampering their daily life for example; management of finances. An evidence based argument for early identification and intervention indicates that early intervention of mathematics Difficulties leads to approximately 18% percent recovery of the children at risk (17). Another study carried out by (1) on speech development and intervention techniques in children with down syndrome and cerebral palsy in Maria Magdalena special school Thika to investigate speech development and intervention techniques of children with down syndrome and cerebral palsy. The study revealed that intervention awakened children’s speech perception skills and that the use of concrete materials promoted understanding of concepts in children. Thus there was need to find out if there was remedial teaching for pupils with mathematics difficulties and to establish the impact of the remedial programme on performance of pupils with mathematics difficulties.

2. Methodology

This study was designed and conducted to find out if there was early identification of Mathematics Difficulties in lower primary schools in Butere District. The study also investigated the effect of remedial teaching program on performance of pupils with mathematics difficulties. This study used descriptive survey and quasi- experimental design. The dependent variable was performance in mathematics of pupils with mathematics difficulties. The independent variables were; effect of the remedial teaching programme, type of school, and pupils’ gender. The study was done in Butere district, Kakamega County, Kenya. The population of the study was all class three pupils and teachers in 75 public and seven private primary schools in Butere district. The target population was standard three teachers and pupils having mathematical difficulties in both public and private primary schools. Butere district was purposively sampled because it had the necessary information the researcher needed following the previous studies done in the area. Stratified random sampling method was used to select 10% of the schools to be involved in the study. Ten bottom last pupils with mathematics difficulties were selected from all the eight schools forming a pupils’ population sample of eighty (80) pupils. (Forty formed the experimental and forty the control group). Eight (8) class three teachers were sampled to assist in administering the remedial teaching programme. The data was collected using methodological triangulation method. Questionnaire and Screening Tool for children with Mathematics Difficulties were used to collect data.

3. Results and Discussions

To establish if there was early identification of children with Mathematics Difficulties in Butere District, teachers were required to indicate whether they identified pupils with mathematics difficulties. All the teachers had reported that they identified pupils with MD. The main methods used by teachers to identify pupils with MD were direct observation; and parents’ concerns. The results were similar to those established in other studies. In India, teachers used differential diagnosis, direct observation and recognizing students strengths (3) while in USA according to (16) teachers used a cluster of strengths, assessment and direct observation to identify learners with MD.
4. Common Forms of Mathematics Difficulties

The common forms of mathematics difficulties that pupils experienced were established and Table 1 presents the Table 1 indicates that most learners with MD experienced difficulties in addition with carrying over (20%), borrowing in subtraction (20%) and general mathematical difficulties. Others included incorrect alignment of mathematics digits, time, fractions, word problems, subtraction, division and number value. The findings of this study corroborates those of (16) who had established that children experiencing mathematics difficulties either experienced computational problems which included operations and oral word drills or reasoning which entailed poor discrimination of shapes and quantities or mastery of mathematics concepts. A study done by (7) established that children with MD experienced difficulties which included finding difficulties in mathematics performance or rightly applying mathematics rules (9).

5. Remedial Teaching Programme for Pupils with MD

Class three teachers were asked to indicate whether they had remedial teaching programme for pupils with MD. Results from data analysis had revealed that all teachers in both private and public primary schools had remedial teaching programmes for children with MD.

The type of remedial teaching used for children with MD was also investigated and the results are presented in Table 2.

Table 2 indicates that most teachers in both private and public schools conducted paid tuition as a way of helping children with mathematics difficulties. They also used multi sensory approach, and ability groupings. This means that most schools used paid tuition. However, paid tuition was not necessitated by the need for early intervention of MD but a heavy emphasis on exams which forced pupils and parents’ demand for it. The private tuition was not even well designed to help learners with MD but merely covered the normal syllabus (18).

Teachers taught children in their schools and at times in other venues outside the school compound. The tuition was paid on hourly or session basis (ranging from Kshs. 1000-1500 and in some cases higher than that). The subjects taught mostly in tuition were those considered important like mathematics, language and sciences. Further research by (26) revealed that besides the private tuition was being done over the weekends; it could also be done after formal classes in the evening when children were already tired or during school holidays. This therefore, raises the question of effectiveness in helping children with MD.

The time class three teachers conducted remedial teaching was also established and the results are presented in Table 3.
Table 2. Remedial Programme Used for MD by Type of School

<table>
<thead>
<tr>
<th>School Type</th>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>Paid private tuition</td>
<td>03</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Multi sensory approach</td>
<td>01</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td><strong>04</strong></td>
<td><strong>50</strong></td>
</tr>
<tr>
<td>Public</td>
<td>Paid private tuition</td>
<td>02</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Teaching in ability groups</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multi sensory approach-many l/aids</td>
<td>01</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td><strong>04</strong></td>
<td><strong>50</strong></td>
</tr>
<tr>
<td>Overall Totals</td>
<td></td>
<td><strong>08</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 3. Time of remedial teaching

<table>
<thead>
<tr>
<th>Time of Day</th>
<th>Frequency</th>
<th>Percent</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the afternoon</td>
<td>67</td>
<td>77.0</td>
<td>77.0</td>
</tr>
<tr>
<td>During vocations and Saturdays</td>
<td>6</td>
<td>6.9</td>
<td>6.9</td>
</tr>
<tr>
<td>Morning before formal lessons</td>
<td>14</td>
<td>16.1</td>
<td>16.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>87</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 3 reveals that most teachers conducted remedial classes for children with MD in the afternoons (77%) or in the morning before formal class lessons (16%). The remaining group of teachers conducted tuition over the weekends or during the school holidays. The findings of the study concurs with that found by (26) which revealed that the time for the tuition was usually over the weekends, after formal classes in the evening when children were already tired or during school holidays.

6. Effect of Remedial Teaching Programme on Mathematics Performance of Pupils with MD

The effect of remedial teaching programme on mathematics performance of pupils with MD in the experimental and control groups was investigated. Table 4 presents the results.

Table 4 indicates that the mean of the experimental group improved from 53.487 to 53.923 whereas the mean of the control group dropped from 39.291 to 33.035. The results further show that there was a slight increase in the Standard Deviation of the experimental group from 21.936 to 22.306 meaning there was increase in lower marks towards the mean which led to an improvement in the overall mean. The standard deviation of the control group increased greatly from 14.685 to 21.956 meaning that a number of learners dropped in their average marks leading to a decrease in the overall mean of the control group. Hence the remedial teaching had a positive impact on the learners’ score in mathematics.

Further statistical tests were done to establish the difference between the performance of children with MD who received remedial teaching and those who did not. To this end, the following hypothesis was formulated and tested: There is no significant difference in mathematics performance between pupils with mathematics learning difficulties who receive remedial teaching and those who do not.

The t test for independent samples was used to test whether the difference was significant and the results are presented in Table 5 below:
Table 4. Impact of Remedial Teaching on the Control and Experimental Group

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest</td>
<td>Experimental</td>
<td>40</td>
<td>53.9231</td>
<td>22.30693</td>
<td>3.57197</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>40</td>
<td>33.0352</td>
<td>21.95656</td>
<td>3.16916</td>
</tr>
<tr>
<td>Pretest</td>
<td>Experimental</td>
<td>40</td>
<td>53.4872</td>
<td>21.93636</td>
<td>3.51263</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>40</td>
<td>39.2917</td>
<td>14.68529</td>
<td>2.11964</td>
</tr>
</tbody>
</table>

Table 5. Independent Samples t Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>T</td>
</tr>
<tr>
<td>POST TEST</td>
<td>Equal variances assumed</td>
<td>.53</td>
<td>.47</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>4.4</td>
<td>80.7</td>
</tr>
<tr>
<td>PRETEST</td>
<td>Equal variances assumed</td>
<td>10.4</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>3.5</td>
<td>63.9</td>
</tr>
</tbody>
</table>

Table 5 shows that the \((t=4.4, \text{df}=85 \text{ at a } P \text{ value } < 0.000)\) was highly significant. The lower P value than 0.005 indicates that there is a significant difference between the performance of the experimental and control groups during the post test. Therefore, the null hypothesis stating that there is no significant difference in mathematics performance between pupils with mathematics learning difficulties who receive remedial teaching and those who do not was rejected. This implies that the remedial teaching programme enabled children with MD to perform better.

7. Influence of Gender on the Performance of Pupils with MD

The influence of gender on the performance of pupils with MD was determined and Table 1.6 presents the results.

Table 6 shows that boys improved in their mean score from \((44 \sim 47\%)\) in the pre-test and post-test respectively. On the other hand, there was a slight drop among girls from \((60-59\%)\) in the pre-test and post-
tests. Nonetheless, the changes did not bring about a significant difference in performance between boys and girls with mathematics difficulties who received remedial teaching in the post-test results while a significant difference was observed during the pretest examinations.

Further statistical analysis was done to establish the difference between the performance of children with MD who received remedial teaching and those who did not. To this end, the following hypothesis was formulated and tested: There is no significant difference in performance between boys and girls with mathematics difficulties who receive remedial teaching.

### Table 6. Gender Influence on Mathematics Performance of Children with MD

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>POST TEST Male</td>
<td>22</td>
<td>47.2353</td>
<td>21.33521</td>
<td>5.17455</td>
</tr>
<tr>
<td>Female</td>
<td>17</td>
<td>59.0909</td>
<td>22.12284</td>
<td>4.71660</td>
</tr>
<tr>
<td>PRE TEST Male</td>
<td>22</td>
<td>44.3529</td>
<td>23.19736</td>
<td>5.62619</td>
</tr>
<tr>
<td>Female</td>
<td>17</td>
<td>60.5455</td>
<td>18.46677</td>
<td>3.93713</td>
</tr>
</tbody>
</table>

### Table 7. Independent Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>T</td>
</tr>
<tr>
<td>POST TEST</td>
<td>Equal variances assumed</td>
<td>.16</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>-1.7</td>
<td>35.2</td>
</tr>
<tr>
<td>PRETEST</td>
<td>Equal variances assumed</td>
<td>1.5</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>-2.4</td>
<td>30.0</td>
</tr>
</tbody>
</table>
Table 7 reveals that the ($t=0.69$, df= 35 at a $P < 0.99$) is more than a $P$ value of 0.005. The higher $P$ value indicates that the difference was significant during the pre-test but an insignificant difference in the post test ($t=1.69$, df= 37 at $P <0.001$). This led to the null hypothesis being accepted. Therefore, the performance of girls and boys with MD who received Remedial Teaching had no significant difference. This implied that gender did not influence performance of pupils with MD who received Remedial Teaching.

These findings however, seemed to contradict other research which indicated that gender influenced student’s academic achievement. For in instance, research studies by (15) have found out that there was a significant difference in male and female achievement in numeracy in western province in favor of boys. In science, a meta-analysis of 77 studies was conducted between 1980-1995 among middle high school students in the U.S by (6) established that science favored male performance. In another study by (20) it was found out that boys outperform girls in sciences.

### 8. Influence of Type of School on Remedial Teaching

An equal number of pupils was selected from the public and private primary school and grouped into control and experimental groups. A pre and post-test exam was administered to establish the influence of the type of school on effect of remedial teaching for pupils with MD. Table 8 presents the findings of the study by type of school the teachers taught.

Table 8 reveals that there was a slight drop in the mean of the pupils with MD in the public schools from 49.894 (in pre-test) to 47.947 (in post-test) and a slight improvement in mathematics performance of pupils with MD in the private schools from 56.900 to 59. 6. The Standard deviation of the public schools dropped from 15.895 in pre-test to 13.962 in post-test and 26.417 to 27.219 in post-test. The slight changes in the performance of the two groups indicated there was no significant difference in mathematics performance between pupils with mathematics difficulties in public and private primary schools who receive remedial teaching.  The average score of the children who received remedial teaching improved from 53.5 - 53.9. However, the influence of the type of school and gender on the mathematics performance of pupils with MD was not significant.

### 9. Findings of the Study

There was early identification of children with Mathematics Difficulties (MD) and there were more pupils with MD in the public primary schools than in the private ones. The most common forms of MD identified were; addition and subtraction with carrying over.

All the teachers who participated in the study indicated that they conducted remedial teaching for pupils with MD. The most common forms of remedial teaching was paid tuition, multi-sensory approach and use of ability groupings. Most teachers conducted the remedial teaching in the evenings after formal classes.

Pupils with MD who received remedial teaching performed better than those who did not receive remedial teaching. The average score of the children who received remedial teaching improved from 53.5 - 53.9. However, the influence of the type of school and gender on the mathematics performance of pupils with MD was not significant.

### 11. Recommendations

The Ministry of Education Science and Technology should enforce the ban on private paid tuition to allow children to play and rest. This allows them to be children and also to grow in all facets for holistic development.
Table 8: Impact of Remedial According to the Type of School

<table>
<thead>
<tr>
<th></th>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSTTEST</td>
<td>Public</td>
<td>19</td>
<td>47.9474</td>
<td>13.96215</td>
<td>3.20314</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>20</td>
<td>59.6000</td>
<td>27.21919</td>
<td>6.08640</td>
</tr>
<tr>
<td>PRETEST</td>
<td>Public</td>
<td>19</td>
<td>49.8947</td>
<td>15.89512</td>
<td>3.64659</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>20</td>
<td>56.9000</td>
<td>26.41750</td>
<td>5.90713</td>
</tr>
</tbody>
</table>

Table 9. Independent Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>POSTTEST</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>24.8</td>
<td>.000</td>
<td>-1.7</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
<td>-1.7</td>
</tr>
<tr>
<td>PRETEST</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>12.8</td>
<td>.001</td>
<td>-.98</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
<td>1.01</td>
</tr>
</tbody>
</table>

Teachers Service Commission should ensure that better staffing of school is done to reduce the workload and lower the high teacher-pupil ratio which causes overcrowding in classes impeding effective teacher-pupil interaction. The study revealed that many teachers handled as many as sixty children which were more than the recommended number of forty children per teacher.

Kenya Institute of Curriculum Development should develop standardized assessment tools for early identification of pupils with MD. The study revealed that teachers were not well equipped to effectively identify pupils with MD.
Teacher Training Colleges (TTCs) should equip teacher-trainees with relevant pedagogical skills and knowledge to identify mathematics difficulties and offer effective early intervention of mathematics difficulties. The results of study revealed that most teachers were not trained in SNE and hence lacked the competencies to not only identify MD but also to offer effective early intervention.

Policy Makers should formulate policies that promote effective early identification and intervention of MD and also enhance stable parent-teacher collaborations in early identification and intervention of mathematics difficulties. The study revealed that there were no clear policy directives on early identification and intervention of MD from the Ministry of Education though there was a policy for person with Disabilities.

Universities should play a leading role in training teachers on how to identify and give remedial teaching to pupils with MD. They should further develop remedial teaching programmes and provide in-service training to teachers to equip them with the necessary pedagogical skills for effective early intervention of MD.

References


Session 15: Curriculum, Research and Development

Writing: A Way of Righting the Poor Reading Habit of In-School Adolescents in Nigeria
(Author: Eziaku K. Ukoha)

Using a Blended Curricular Model of Professional Development to Increase Educator Repertoires for Instructing Students with Autism Spectrum Disorders
(Author: Lisa Dille)

The Effects of Inquiry and Expository Instructional Strategies on Achievement in Chemistry among Concrete and Formal Operational Secondary School Students in Kaduna State, Nigeria
(Authors: J. S. Mari, Sarah Dauda, Usman Garba Ladan)
Writing: A Way of Righting the Poor Reading Habit of In-School Adolescents in Nigeria

Eziaku K. Ukoha
Faculty of Education, Abia State University, Uturu, Nigeria

Abstract

The performance of Nigerian adolescents in a external and internal examinations have deteriorated over the years. This has been traced to poor reading habits. Hence, this study on “Writing: A way of righting the poor reading habits of in-school adolescents in Nigeria”. The purpose of the study is to determine the extent to which writing exercises can improve the reading competence of adolescents. The population of the study is 400 in-school adolescents. It is an experimental study carried out on two groups of 26 adolescents each: drawn from 52 Junior Secondary School two (JSS 2) students. The experiment lasted for two weeks. Four research questions were posed to guide the study. The instruments were a verbal aptitude test and comprehension passages from their prescribed English Text Book. The Pairwise Correlation Coefficient, simple regression analysis and simple t-test were used to analyze the data. The findings include that sex age and writing have positive effects on reading. The paper concludes that the reading ability of most in-school adolescents is was below expected standard. The recommendations include involving parents to encourage reading at home, creating conducive environments, training special and English teachers, establishing and equipping school and public libraries.

1. Introduction

Reading came with the invention of writing, and one serves the purpose of the other. We read what has been written, and we write so that we may read (1). It is a tool discipline and a child’s ability to read is the centre of the education process. Reading is a key to progress in learning. The inability to read well can make a child fall behind other members of the class (2). Reading is defined by some, to mean running one’s eyes across printed material. Others see it as being concerned with the recognition of words. In reality reading involves much more than that. (3) asserts that reading is more concerned with reasoning, meaningful interpretation of words, phrases and sentences, requires all types of thinking, such as critical, analytical, creative, imaginative evaluation, judgemental and problem solving. This involves the acquisition of the intended meaning of the writer, as well as ones interpretation, evaluations, and reflections about these meanings. This implies that the person who is reading should be thinking, predicting, defining and redefining what is being read.

Comprehension is at the centre of reading. (4) describe reading as a process that requires the use of complex thought processes to interpret printed symbols as meaningful units, and comprehend them as a thought unit, in order to understand a printed message. Through reading humans have the tool to transmit knowledge to each succeeding generation, and it allows one to listen to the wisdom and people of the ages (5). The Apostle Paul admonishes Timothy to “study to show yourself approved unto God” (6).

Every child must become competent in reading to succeed in school and discharge responsibilities as a citizen of a society (7). Reading is closely related to vocational efficiency. Students and employees in every field must read to keep abreast of what is happening in their fields. (8) asserts that reading is the only entertainment that is also an essential life skill. It must be nurtured from a child’s earliest years. It is an indispensable tool of learning. Every course of study is accomplished partly through reading. Academic success at every level is likely a multidimensional phenomenon, that includes language proficiency, learning, study strategies and certain personal characteristics. In order to achieve in their academics, all students must read and pass their courses. Success in any academic endeavour demands knowledge of facts and understanding of ideas, much of which is through the written word. Knowledge is power and most knowledge is acquired through reading.

Adolescence is a period of multiple transitions involving education, training, employment and unemployment, as well as transition from one living circumstance to another. The period is usually accompanied by an increased independence allowed by the parents or legal guardians and less supervision as compared with preadolescence. Cognitive advances encompass both increases in knowledge and in ability to think abstractly and to reason more effectively. There are marked improvements in both the working and long term memories. Adolescents think more quickly than children. Studies since 2005
indicate that the brain is not fully formed until the early twenties.

As a result of cognitive development adolescents, experience a significant shift from the simple concrete and global self descriptions typical of young children. At this point they are expected to be able to read with understanding. During this period, due to their increased physical development, adolescents are full of excess energy and activities. Relationship with peers becomes so important that adolescents willing to do whatever will enable them retain relationship with peers and friends. This could involve their giving up important or necessary activities or responsibilities and getting involved to gain the approval of in risky behaviour their friends and peers. Research shows that relationships have the largest affect over the social development of an individual (9). Peer relationships can be positively harnessed to develop and promote the reading habits of adolescent.

Reading as a habitual activity is normally confined to a relatively small segment of adolescents. This habit does not appear to be a prominent feature in the lives of many adolescents, who come from different backgrounds and have different life experiences, which have great impacts on their ability to read. A small group of adolescents, though, are curious about many things, and are aware of their own need for information. These groups of students are often the brighter ones, and are eager to read.

2. Importance of Good Reading Habits

Reading is one of the most fundamental skills a child needs to learn to succeed in life. Good reading habits is vital to a child’s future, both academically and in everyday life.

Reading is a process which provides humans with the tools to transmit knowledge to succeeding generations. It allows one to listen to the wisdom and people of the ages.

Reading develops vocabulary. The more a child reads, the more new words find their way into his vocabulary. Reading allows for exposure to words and phrases that one might not use as part of normal speech.

Reading increases the attention span of adolescents. Good reading habits should be encouraged at an early age, so as to develop their attention span, which allow them to focus better and for longer periods of time. It combats the poor attention span in today’s children.

Early development of reading habits prepares children for school. Children who spend a lot of time reading before attending school will have an easier time adapting to the reading focused learning environment, in the future classrooms.

The development of reading habit early, leads to a lifelong love of books. Children who start reading regularly from an early age are more likely to enjoy reading later in life. This serves them well in their education and beyond.

Reading encourages a thirst for knowledge. Children with good reading habits learn more about the world around them, and develop interest in other cultures. Reading leads to asking questions, and seeking answers, thus, enabling children to learn more, every day. It provides adolescents and indeed everyone with other people’s views of life, and broadens ones horizon.

3. Poor Reading Culture

The decline in reading among children and adolescents is seen by some as an offshoot of technological advancements that have brought about overall changes in family, social, and economic conditions. Poor reading habits occur in children and adolescents because reading is not considered a relevant leisure activity, as it does not form part of children’s social interaction. It is considered as a solitary pursuit, which is not attractive when compared with interactive activities on the internet. There seems to be an overriding desire among young people to spend more time with their friends, than to remain at home to read. Adults and children alike may enjoy television and films as a way of enjoying their leisure instead of reading. Besides, there is an unprecedented rise in the price of books in recent times, while DVDs are becoming more affordable.

The way of life of a nation is influenced by the percentage of its citizens who are literate. Cuba, for example, is adjacent to the US and has the highest literacy level in the world (10). This is one of the reasons why Cuba has a vibrant economy, despite conflicts with the strongest nation in the world-USA. Despite the fact that Nigeria was a British colony, she is nowhere near the 99% literacy level of Britain. The following factors are held responsible for this state of affairs:

Poverty: The effect of poverty is deeply felt in Sub-Saharan African. Only a few people live above the poverty level. The per capita income of the average citizen in Nigeria is two dollars. This greatly affects the reading habits of many Nigerians, especially, those who lack the money to send their children to school, pay fees or buy books.

Corruption: This has a profound effect on Nigeria. Corruption is felt in every facet of life in Nigeria. For example, many students would prefer to indulge in immoral acts, than face their studies, diligently. Situations like trading sex for grades, sale of ungraded text books to students at exorbitant prices, using money to buy examination grades and cheating
in examinations, abound. Those who are involved in these infamous acts consider reading a waste of time. Noise Culture: A reading environment requires places for quiet study. Many schools are in densely populated neighbourhoods, where distractions prevent the smooth flow of learning. Due to illiteracy, most people perceive noise as an integral part of the culture.

Undue Importance Attached to Wealth: Many Nigerians celebrate mediocrity at the expense of intellectuals. This is seen in the rush for material things. Some people abandon their educational careers in pursuit of quick money, which they believe is more easily got in business and politics. In Nigerian, the young generation sees the leaders pocket a lot of money and this makes them feel that there is always a short cut to making money.

Lack of Reading Language: In many homes, the language of reading English is introduced late. For some children the point of first work is the school. Dearth of Libraries: Libraries play an important role in the promotion of reading habits. In many places libraries are non-existent or are very poorly equipped. Libraries are not sited where they are needed, while the few existing ones are not properly funded or equipped. Libraries are not available to a greater proportion of the population at large, or in the schools. Where they exist, many of their materials are outdated.

Some education stakeholders attribute the drop in the reading culture in Nigerians to the lack of adequate awareness of its importance inadequate library facilities, poor access to books and other reading materials. Added to these are the distractive and wrong applications of information and communication technology devices. As good as ICT may be, observers believe that internet obsession has caused many kids to waste valuable time surfing anti-moral and socially inclined websites. Also, the introduction of the General System of Mobil Communication (GSM) in Nigeria has com domestically and socially, the African does not live the reserved life in which a book plays the part of a happy companion, and a hobby. His fundamental social structure is that of a communal life, which has not changed, fundamentally. Generally, his housing and living conditions today still leave much to be desired. The struggle for existence for most people, both at home and in the community, makes life so exacting that reading becomes a luxury that many average Africans can ill afford.

Natural causes are yet another source of deterrent to reading. The weather, which is generally hot and sticky, makes outdoor life more attractive than the warm stuffy atmosphere of a congested room. At night insects, attracted by bright light, become a big nuisance.

There has been no readership survey to find out what readers would like to read (11). Very few, if any, really know the reading habit of the community they serve.

Societal factors have a lot to do with the general attitude of the Nigerian society towards reading as an activity such factors include the non availability of human and material resources for the teaching of reading such facto and the general literacy level of the society. Like many other African nations, Nigeria still has a prevalence of oral-tradition mentality. A popular adage says that – “If you want to hide something from an African, put it in a book.” This illustrates that the oral tradition that governed life in the pre-historic societies still reigns in Nigeria. This can be seen in habit of utter disregard for data and facts for rumours, and in the utter disregard for record keeping (1). Nigeria would need to take a giant mental leap from oral to written culture, as a necessary first step to attuning our minds to reading. There is no provision for reading as a taught subject in Nigerian schools, either at the primary or secondary school level. The only visible effort made towards recognizing reading as an important part of learning is the existence and activities of the Reading Association of Nigeria (RAN). This is an organization for tertiary personnel and is far removed from the participation of the average Nigerian and adolescents. There are no reading laboratories in any secondary school in Nigeria, except for a few that are in the State Education Boards. There are no facilities, to train reading specialists. Trained reading teachers are nonexistent in most schools. Most Nigerian schools do not have functional libraries.

Home factors that influence a child’s reading attitude and interest have a lot to do with the socio-economic status of the family. Parents’ level of education plays a important role in influencing a child to read or not. Availability of reading materials in the home and parental encouragement and motivation towards reading, are other important factors (2).

The effort to arouse children’s interest in reading should start in the home and in the first years of schooling, illiterate parents can do very little or nothing in that direction. Most adolescents tend to read solely to pass examinations (Emenyonyu, 1982). The materials students read often consist only of lecture notes and text books. Many have not developed the interest to read for pleasure. Lawal (1987) found that the reading problems in adolescents included difficult words and slow reading. Emenyonu (12) found that 60% of responding students admitted that they read two or three novels a year, for pleasure. He contends that there are definite skills, attitudes and habits that should be taught, if children are to learn to read with efficiency, understanding and for pleasure, to assure life-long reading. These skills are hardly taught in
Nigerian secondary schools, especially in the public schools. This scholar believes that good reading habits are formed with the regular application of good reading skills and attitudes, which must be introduced early in life.

In this age of advancement in the development of communication technology (ICQs), with the proliferation of television, video-players and the internet, it is now uncommon to see children and adolescents carrying books to read. Technology has slowly but steadily taken over the control of children’s and adolescents’ lives and the cultivation of good reading habits have been lost. Adolescents have gradually abandoned book reading to pursue interests in movie watching and recently, surfing and chatting on the net. Diverse ways of improving the reading habits of adolescents have been found to include such programmes as reading clubs, mobile reading tents, book talks, and story hours. Studies on how school study on how and public libraries can play leading roles in improving the reading habits of adolescents. Studies have been carried out to find out what can motivate adolescents to read.

In recent times the performance of in-school adolescents in external examinations and the interest in education have deteriorated. This situation is depicted in their performance in JAMB examinations (See Table 1). Even though the numbers seem higher, this is low in relation to the population of adolescents.

Table 1: Yearly Application for Admission/Number Admitted

<table>
<thead>
<tr>
<th>Year</th>
<th># Applicants</th>
<th># Admitted</th>
<th>% Admitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009/10</td>
<td>1,182,381</td>
<td>148,000</td>
<td>12.5</td>
</tr>
<tr>
<td>2010/11</td>
<td>1,375,652</td>
<td>360,000</td>
<td>26.2</td>
</tr>
<tr>
<td>2011/12</td>
<td>1,493,604</td>
<td>400,000</td>
<td>26.8</td>
</tr>
<tr>
<td>2012/13</td>
<td>1,503,889</td>
<td>500,000</td>
<td>33.3</td>
</tr>
<tr>
<td>2013/14</td>
<td>1,670,833</td>
<td>520,000</td>
<td>31.1</td>
</tr>
</tbody>
</table>

JAMB – Joint Admissions and Matriculation Board

Some scholars have noted the poor performance of adolescents in public examinations to the poor reading habits of adolescents. The study by National Assessment of Education and Progress (NAEP) in 1994 revealed a positive correlation between reading habit and academic achievement. Scholars have found that the teaching practice that is most effective in encouraging students to read must draw upon the motivational impact of social processes for cultivating relationships, and that the strategies that can be employed to improve the reading habits of adolescents include reading every day, testing one’s comprehension, and learning to stop reading aloud. Akabuike (13) asserts that a number of study findings confirm that an adolescent can improve both his rate and comprehension by conscious practice of the art. Hence, this study on “Writing: A way of righting the poor reading habits of in-school adolescents in Nigeria”.

4. Methodology

The study used a quasi experiment design. The area of study is Abia State, Nigeria. The population of the study is all in-school adolescents in Abia State. Specifically, 400 in-school adolescents of a private school in Umuahia Municipal, Abia State formed the population. The exiting Junior Secondary School two (JSS II) of the school was used as the sample giving, a sample size of 52 JSS II pupils. The random sampling technique was used to assign the children into two groups of Experimental (E) and control (C) groups, with twenty-six (26) in each group, made up of 14 males and 12 females in each group. Sex and age were used as moderator variables.

Four Research questions formulated to guide the study. They are:
1. Does writing have a positive effect on the reading ability of in-school adolescents?
2. Does aptitude have a positive effect on the reading ability of in-school adolescents?
3. Does age affect the reading ability of in-school adolescents?
4. Does sex have effect of the reading ability of in-school adolescents?

Before the treatment session the two groups E and C, were given a verbal aptitude test consisting of 25 items. The experimental period was two weeks. While the experimental group was exposed to two weeks of treatment (writing) and reading, the Control group was only drilled in reading.

The treatment consisted of comprehension exercises from their English text books, and writing short essays on topics like “how I will spend my holidays, what I like or hate most about my school”. After the treatment which lasted for thirty minutes during each treatment session, each student was given opportunity to read comprehension passages from their English text books. The reading of each group was graded using the following criteria – pronunciation, fluency of reading, reading with confidence, reading with meaning and understanding. After each writing exercise, they read comprehension passages from their English text books. Each pupils reading was assessed and L scored. Their scores on the verbal attitude test was computed and analyzed.

The Control Group (C) was only drilled in reading the same comprehension passages from their English Text book that the Experimental Group read. Each subjects reading was assessed using the same
The study is a quasi experimental study involving a two by two factorial design. It involved a test of the aptitude of the whole group. This was followed by a treatment of one of the two randomized group – experimental group E and the Control group C. The experimental group was exposed to treatment – answering questions based on comprehension from their English text books and writing short essays on their school and their favourite teachers. Each of these exercises was followed by reading comprehension passages from their English text books. Their reading of individuals was assessed based on the following criteria – pronunciation, fluency, reading with confidence, reading with meaning and understanding.

The control group was not exposed to any treatment that in writing exercises. Their reading was assessed based on the same criteria and assessment as above.

5. Data Analysis and Discussion of Findings

The result of the pairwise correlation coefficient shows that aptitude has a positive effect on reading. That is there is a positive relationship between aptitude and performance in reading. This is in line with the finding of (3).

The pairwise correlation coefficient shows that writing has a positive effect on the reading of in-school adolescents. This implies that reading and writing move in the same direction, reading ability increases as their writing ability increase. It is in agreement with the finding of Obanya (1).

Research Question 1: Does writing have a positive effect on the reading of in-school adolescents?

The result of the analysis showed that writing has a positive effect on the reading of in-school adolescents. This means that writing and reading moves in the same direction. The implication of the result is that reading by in-school adolescents increases as their writing ability increases.

Result of the analysis of research question 1.

Table 2: Pairwise Correlation Coefficient Between Writing and Reading

<table>
<thead>
<tr>
<th></th>
<th>Writing</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>0.1014</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Research Question 2: Does aptitude have a positive effect on the reading ability of in-school adolescents?

The result of the pairwise correlation coefficient shows that aptitude has a positive effect on the reading performance of adolescents. This implies that as aptitude of the adolescent increases, his reading performance or ability increases also.

Table 3: Result of the analysis of research question 2

<table>
<thead>
<tr>
<th></th>
<th>Aptitude</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aptitude</strong></td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td><strong>Reading</strong></td>
<td>0.2684</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Research Question 3: Does age affect the reading ability of in-school adolescents?

Simple linear regression was used to analyze data on research question 3. The result of the analysis showed that the coefficient of age was significant at 10 percent level of probability and negatively related to reading the ability of the adolescents. The result implies that reading ability of the adolescent increases as he gets older, all things being equal. This is in line with findings of the effort to arouse children’s interest on reading should start in the home in the first years of life.

Result of the analysis of research question 3

Table 4: Simple Regression Analysis on Reading and Age

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coef.</th>
<th>Std. Err.</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.4487952</td>
<td>0.2754488</td>
<td>1.63</td>
</tr>
<tr>
<td>Cons</td>
<td>13.40663</td>
<td>6.086487</td>
<td>2.20</td>
</tr>
<tr>
<td>Adj R-squared</td>
<td>0.2373</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj R-squared</td>
<td>0.1246</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-ratio</td>
<td>1.898&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Research Question 4: Does sex have effect of the reading ability of in-school adolescents?

Simple linear regression was used to analyze data on research question 4. The result of the analysis showed that the coefficient of sex was not significant. However, it was negatively related reading ability which implies that female adolescents has more reading ability compared to their male counterpart.

Result of the analysis of research Question 5
Table 5: Simple Regression Analysis of Reading and Sex

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coef</th>
<th>Std. Err.</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>-0.044156</td>
<td>0.0216</td>
<td>-0.46</td>
</tr>
<tr>
<td>Const</td>
<td>7.727273</td>
<td>0.2373</td>
<td>3.25</td>
</tr>
</tbody>
</table>

6. Test of Significance

A test of significance was carried out to determine if there is a significant difference between the experimental values and the control values. The result is presented in the table below. The result showed that there was no significance difference between the mean values of the variable for the various defined items – age, writing, reading, and aptitude. In other words there was no significant advantage for either the experimental or control variables.

Test of significant difference between the experimental values and the control

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>12.76</td>
<td>0.21</td>
<td>0.82</td>
<td>0.98</td>
</tr>
<tr>
<td>Experiment Control Writing</td>
<td>12.48</td>
<td>0.16</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Experiment Control Reading</td>
<td>7.72</td>
<td>0.38</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Experiment Control Reading</td>
<td>7.16</td>
<td>0.17</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Experiment Control Aptitude</td>
<td>7.72</td>
<td>0.52</td>
<td>2.54</td>
<td></td>
</tr>
<tr>
<td>Experiment Control Aptitude</td>
<td>7.16</td>
<td>0.15</td>
<td>2.54</td>
<td></td>
</tr>
<tr>
<td>Experiment Control</td>
<td>19.48</td>
<td>0.85</td>
<td>4.25</td>
<td></td>
</tr>
<tr>
<td>Experiment Control</td>
<td>19.72</td>
<td>0.48</td>
<td>2.39</td>
<td></td>
</tr>
</tbody>
</table>

7. Recommendations

The paper recommends the following:

- Students should be given time during school day to read. This could be by giving them a period on the time table specifically for reading.
- Professional development programmes should be provided for English teachers to have professional development over a sustained period of time.
- Adequate funds and facilities should be provided for the development of libraries in the school and the community.
- Holiday reading should be encouraged.
- Access to books and other reading materials should be provided to youths. Books clubs should be established to focus on the reading interests of adolescents.

There is a need to partners with parents to promote and encourage leisure reading. Studies have shown that parents play a significant role in developing and sustaining the leisure reading habits of children and adolescents (15).

Parents should make sure their children see them read. This will encourage them to read. Parents should stimulate to reading, keep reading materials throughout the house. This will increase the child’s access to books and printed materials. Both the young and old should all be encouraged to read for leisure, and not just for examinations.

The programme Education for All should be given more emphasis, as this will encourage more people to read.

8. Conclusion

The paper concludes that the reading habits of in-school adolescents are generally poor. Many of them could not pronounce words properly or read fluently. Some were even reluctant to read during the treatment period. A lot needs to be done to improve the situation. Prevalent factors like poverty, influence of the present pre-historic and oral culture of the African, and the environmental factors have to be addressed. The present campaign of the Nigerian President, Goodluck Jonathan “Bring back the Book”, to improve the reading culture of Nigerians is a step in the right direction. More still needs to be done, in funding and equipping libraries, making libraries accessible to more people and training more oral English teachers.

9. References


Using a Blended Curricular Model of Professional Development to Increase Educator Repertoires for Instructing Students with Autism Spectrum Disorders

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Georgian Court University

Abstract

This study investigated the effectiveness of a use of a blended curricular model of professional development to increase educator repertoires for instructing students with Autism Spectrum Disorders (ASD). Specific focus was on the use of a blended model of professional development in regard to increasing educator knowledge, educator self efficacy, educator self report of use of instructional methods, strategies, and learning supports with students with autism and educator application of instructional methods, strategies, and learning supports with students with ASD. The findings suggest that when the goals of professional development are to specifically increase educator repertoires in knowledge of autism and educational treatments, self efficacy and frequency of use for applying instructional methods, strategies, and learning supports to students with ASD, the blended curricular model of professional development for teaching students with autism may be effective.

1. Introduction

The diagnostic characteristics of autism are exhibited disparately across individuals with autism and are therefore representative of the disorder being a spectrum disorder. As a spectrum disorder, autism is considered a heterogeneous disorder in which disparity occurs as variability of characteristics, symptoms, and behaviors in elevated patterns of occurrence, co-occurrence, and severity (ASA, [2]) and therefore termed Autism Spectrum Disorder (ASD). Children and adolescents with ASD require specialized treatment and support from their schools and educators due to the distinct and heterogeneous learning needs. Due to the nature of the learning needs of students with ASD it is necessary that educators receive autism-specific preparation and professional development. Furthermore, preparation and professional development that addresses the learning needs of students with ASD as they age and transition into adolescence and adulthood is also needed.

Due to the increase in prevalence of autism, the heterogeneity of the disorder, and the limitations of educator preparation, it is important to investigate whether providing instruction in blend of various research-based methods and strategies in which to utilize in teaching students with ASD. This study aimed to address this need by providing educators a comprehensive curricular model of instruction and determine whether this model can be used to increase educator repertoires in instructing students with ASD. Specific focus is on use of a this blended model of professional development in regard to increasing knowledge of autism, self efficacy of use of instructional methods, strategies and supports, self report of use of instructional methods, strategies and supports, and application of instructional methods, strategies and supports with students with ASD. Specific research questions were:

1. Do participants pretest measures scores differ significantly from posttest measures scores of a) educator knowledge, b) educator self efficacy , c) educator self report of use of instructional methods and strategies and learning supports, d) educator application of instructional methods, strategies, and supports to hypothetical cases of students with ASD?
2. Does application of instructional methods, strategies and supports to hypothetical cases by educators differ significantly for students with mild/moderate and severe levels of ASD?
3. Are there significant correlations between a) educator knowledge, b) educator self efficacy , c) educator self report of use of instructional methods and strategies and learning supports, d) educator application of instructional methods, strategies, and supports of students with ASD?

2. Method

Recruitment of educators was conducted by advertising with local school districts, educational agencies, and universities and included educators who taught in various settings including school-based specialized classes and programs, inclusion programs, preschool integrated school settings, center-based early intervention programs, and home-based programs. A screening questionnaire was administered to determine demographic variables for each participant. The demographic characteristics measures were coded to form nine categorical variables.
Of the 159 participants registered for the training, 98 participants completed the screening questionnaire, the pretesting, the training and the post testing. In regard to level of education, 12 participants held a Bachelors degree in special education, 9 participants were enrolled in a Masters degree program in special education, 4 participants were enrolled in a Masters degree program other than special education, 9 participants had completed a Master’s degree in special education, 42 participants held a Masters degree in fields other than special education, 9 participants held a doctorate degree and 13 participants held a high school diploma.

In regard to years of experience teaching in special education, 24 participants had 1-5 years teaching experience, 13 participants had 6-11 years of teaching experience, 19 participants had 12 or more years of teaching experience, 18 participants had teaching experience in a discipline other than special education, 24 participants did not have teaching experience. In regard to specialized training previously received in working with individuals with autism, 16 participants had completed training in workshops in TEACCH, 17 participants had completed extensive training in TEACCH, 48 participants had completed training in workshops in Applied Behavior Analysis (ABA), and 17 participants had completed extensive specialized training in ABA. In regard to teaching and professional certification status, 22 participants did not have a teaching certification, 3 participants had applied for initial certification in special education, 3 participants had an initial certification in special education, 19 participants had a permanent certification in special education, 34 participants had other teaching certifications and/or professional licenses in the field of education, and 17 participants did not have a teaching certification and/or professional license.

In regard to type of disability and previous experience and or knowledge of, 7 participants identified learning disability, 2 participants identified physical or mobility disability, 3 participants identified intellectual disability, 2 participants identified autism or PDD, 7 participants identified other disabilities and 77 participants identified themselves and not having previous experience or knowledge of a disability. In regard to having a family member with a disability, 50 participants did not have a family member with a disability and 48 participants did have a family member with a disability. In regard to the age range of the 98 participants, 19 participants were 21-26 years old, 8 participants were 27-32 years old, 11 participants were 33-40 years old, 60 participants were 41+ years old. In regard to gender, 94 participants were female and 4 were male. In regard to geographical location, 21 participants lived in an urban setting, 75 participants lived in a suburb setting, and 2 participants lived in a rural setting.

Participants completed the pre-assessment prior to beginning the training sessions and a post assessment which was the same as the preassessment upon completion of the training sessions. Participants of this training were provided with twelve sequential training sessions. The first six sessions were held one Saturday per month during the academic year, with the six additional sessions held on weekdays during the summer months. The professional development included presentations and workshops by top professionals in the field of autism and leading researchers and experts on various subjects related to education and intervention of individuals with ASD. Participants also received various instructional materials including textbooks and DVDs related to each session topic at the completion of each training session. Training sessions were held in a lecture hall on campus of the principal investigator’s university. The time of each session was 8:30am -3:30 pm. Lunch was provided to each participant. The specific schedule was as follows:

Session 1: Nature and Needs of Individuals with ASD
Session 2: Assessment and Programming Planning for Autism Spectrum Disorders
Session 3: Understanding and Intervening of the Social Communication Needs of Children and Adolescents with ASD
Sessions 4 and 5: Applied Behavior Analysis (ABA) and Verbal Behavior Interventions for Children and Adolescents with ASD
Session 6: Integrating Academic and Life Skills into the Daily Curriculum for Children and Adolescents with ASD
Session 7: Transition Planning for Adolescents with ASD
Session 8: Asperger’s Syndrome
Session 9-12: Putting Research into Practice: Educating Adolescents with Autism Spectrum Disorders

Assessment instruments (Educator Knowledge of Autism and Educational Treatment of Autism Questionnaire, Educator Self-Efficacy of Use of Instructional Methods, Strategies, and Supports for Students with Autism, Educator Self-Report of Use of Instructional Methods, Strategies and Supports for Students with Autism, and Performance Assessment of Application of Instructional Methods, Strategies, and Supports to Teach Students with Autism) were initially developed by the researcher based on literature about each treatment approach. To test for face validity all four
assessments were presented to thirteen reviewers including teachers, clinicians, and experts experienced in both behavioral and socio-emotional approaches of instructing students with autism. Reviewers shared and aided in the revision of each item of all four assessments. Revisions made each item and assessment more specific to each dependent variable of the study. To determine validity and reliability for testing measures a split-half reliability and coefficient alpha was computed.

To measure educator knowledge, the Educator Knowledge of Autism and Educational Treatment of Autism Questionnaire was used. The questionnaire consists of 30 multiple-choice questions. Each question was answered with either a correct response or an incorrect response and a dichotomous scale (1 = correct response and 0 = incorrect response) was used to score responses. The maximum score for this assessment was 30 points. In summary for Teacher Knowledge the split-half reliability was .77, and coefficient alpha was .846.

To measure educator self-efficacy, the Educator Self-Efficacy of Use of Instructional Methods, Strategies, and Supports for Students with Autism, was administered. This instrument is a 31-item checklist in which each item was answered and rated using a Likert scale. Scoring is as follows: 3=I feel I have the knowledge and skills needed, 2=I feel I have some knowledge and skills needed in this area, 1=I feel knowledgeable in this area but I do not feel I have the skills needed, 0=I do not feel knowledgeable or skilled in this. The maximum score for this assessment was 93 points. In summary on use of instructional methods and strategies and learning supports as measured by the self-efficacy instrument, the split-half reliability was .94, and coefficient alpha was .97.

To measure educator self-report of use of instructional methods, strategies, and supports the Educator Self-Report of Use of Instructional Methods, Strategies and Supports for Students with Autism was administered. This instrument was a 30-item checklist in which each item was answered and rated using a Likert scale. Scoring was as follows: 4=Always, 3=Most of the time, 2=Sometimes, 1=Rarely, 0=Never. The maximum score for this assessment was 120 points. In summary on use of instructional methods and strategies and learning supports as measured by the self-report instrument, the split-half reliability was .94, and coefficient alpha was .97.

To measure educator application of instructional methods, strategies, and supports with students with mild autism versus use with students with severe autism the Performance Assessment of Application of Instructional Methods, Strategies, and Supports to Teach Students with Autism was administered. This instrument measured application of instructional methods, strategies, and supports to teach students identified as having autism in the mild to moderate range versus the moderate to severe range. This instrument consisted of four case studies in which two depict hypothetical students with mild to moderate autism and two case studies depict students in the moderate to severe range. A consistent set of six questions across all four case studies which were designed to measure the capacity to apply instructional methods, strategies, and supports with students with autism were presented. Responses were categorized as follows: 0= Response indicates insufficient understanding, no appropriate answers, and/or major errors. 1= Response indicates limited understanding, is incomplete, and/or contains major errors. 2=Response indicates substantial and appropriate understanding but may have minor errors. 3= Response is correct and the underlying reasoning process is appropriate and clearly communicated. Response may contain minor errors if any. The four case studies and their corresponding questions were grouped into two categories: mild and severe. Each category received a categorical score. The maximum score for each category was 36 points. Both scores were totaled yielding one composite score for a grand total. The maximum score for this assessment was 72 points. In summary the Performance Assessment of Application of Use of Instructional Methods, Strategies, and Supports the split-half reliability was .88, and the coefficient alpha was .95.

3. Results

The data on the effects of the training indicates that participants’ knowledge post-test mean scores increased significantly. The mean score for all participants on the knowledge pre-test was \( (M=17.64) \), with a minimum score on the pre-test of 0 and a maximum score on the pre-test of 30. After the intervention the mean score for all participants on the knowledge post-test was \( (M=25.62) \), with a minimum score on the post-test of 15 and a maximum score on the post-test of 30. Results are displayed in Table 1.
According to these results after participants received the introductory and foundational knowledge of ASD and educational interventions used to treat autism there was an overall mean score increase of 8 points from the knowledge pre-test to post-test.

The data on the effects of the training indicates that participants’ self-efficacy post-test mean scores increased significantly. The mean score for all participants on the self-report pre-test was (\(M=36.97\)), with a minimum score on the pre-test of 0 and a maximum score on the pre-test of 100. After the intervention the mean score for all participants on the self-report post-test was (\(M=78.95\)), with a minimum score on the post-test of 3 and a maximum score on the post-test of 93. After the participants completed the training the self-report of the use of instructional methods, strategies, and learning supports mean score increased to 45.86. Results are displayed in Table 1.

The data on the effects of the training indicates that participants’ application post-test mean scores increased significantly. The mean score for all participants on the application pre-test was (\(M=85.45\)), with a minimum score on the pre-test of 0 and a maximum score on the pre-test of 216. After the intervention the mean score for all participants on the application post-test was (\(M=163.66\)), with a minimum score on the post-test of 4 and a maximum score on the post-test of 236. After participants completed the training the application of instructional methods, strategies, and supports for students with ASD mean score increased to 78.21. Results are displayed in Table 1.

In regard to correlations between knowledge, self-efficacy, self-report of use of instructional methods, strategies and supports, and application of instructional methods and strategies and learning supports to hypothetical cases, a correlation matrix was calculated to determine if there were any significant relationships between the independent and dependent variables. The correlation coefficient between the variables post-knowledge and post-efficacy (\(r= .045\)) suggest a low positive relationship. An \(r\) value of .045 indicates that there is a chance that as knowledge increased, self-efficacy tended to increase. The correlation coefficient between the variables, post-knowledge and post-application (\(r=.050\)) suggest a low positive relationship. An \(r\) value of .050 indicates that there is a chance that as knowledge increased application of instructional methods, strategies, and supports for students with ASD tended to

Table 1. Means and Standard Deviations (SD) for Pre & Post Test

<table>
<thead>
<tr>
<th>Pre &amp; Post Test</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test Educator Knowledge</td>
<td>17.64</td>
<td>4.80</td>
</tr>
<tr>
<td>Post-test Educator Knowledge</td>
<td>25.62</td>
<td>3.53</td>
</tr>
<tr>
<td>Pre-test Self Efficacy</td>
<td>37.02</td>
<td>26.77</td>
</tr>
<tr>
<td>Post-test Self Efficacy</td>
<td>82.88</td>
<td>15.60</td>
</tr>
<tr>
<td>Pre-test Self Report</td>
<td>36.97</td>
<td>33.56</td>
</tr>
<tr>
<td>Post-test Self Report</td>
<td>78.95</td>
<td>20.60</td>
</tr>
<tr>
<td>Pre-test Educator Application</td>
<td>85.45</td>
<td>65.99</td>
</tr>
<tr>
<td>Post-test Educator Application</td>
<td>163.66</td>
<td>51.37</td>
</tr>
</tbody>
</table>
increase. The correlation coefficient between the variables post-knowledge and post-report ($r = -.007$) suggest a low negative relationship. An $r$ value of .050 indicates that there is a chance that as knowledge increased, self-report of the use of instructional methods, strategies, and learning supports tended to decrease. The correlation coefficient between the variables post-efficacy and post-application ($r = .204$) suggest a low positive relationship. An $r$ value of .204 indicates that there is 4% chance that as self-efficacy increased, application of instructional methods, strategies, and supports for students with ASD tended to increase. Results are displayed in Table 2.

The correlation coefficient between the variables, post-application and post-report ($r = .197$) suggest a low positive relationship. An $r$ value of .197 indicates that there is 4% chance that as application of instructional methods, strategies, and supports for students with ASD increase, self-report of the use of instructional methods, strategies, and learning supports tended to increase. The correlation coefficient between the variables post-efficacy and post-report was significant at the 0.01 level (2-tailed). What this signifies is that 99 times out of a hundred the relationship found between the variables post-efficacy and post-report will exist. The correlation coefficient between the variables post-efficacy and post-report ($r = .498$) suggest a moderate positive relationship. An $r$ value of .498 indicates that there is a 24% chance that as participants’ self-efficacy increased, participants self-report of the use of instructional methods and strategies and learning supports tended to increase. Results are displayed in Table 2.

In regard to application, there was no significance difference between application of instructional methods, strategies, and learning supports when applied to students with mild to moderate range versus the moderate to severe range.

Table 2. Correlation Matrix of Independent and Dependent Variables

<table>
<thead>
<tr>
<th>Scale</th>
<th>Post-Knowledge</th>
<th>Post-Self Efficacy</th>
<th>Post-Application</th>
<th>Post-Self Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Knowledge</td>
<td>1</td>
<td>.045</td>
<td>.050</td>
<td>.007</td>
</tr>
<tr>
<td>Post-Efficacy</td>
<td></td>
<td></td>
<td>.204</td>
<td>.498</td>
</tr>
<tr>
<td>Post-Performance</td>
<td></td>
<td></td>
<td></td>
<td>.197</td>
</tr>
<tr>
<td>Post-Report</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

4. Discussion

Implementation of any instructional method or intervention requires that educators be trained in its effective application to meet the needs of students with ASD. Although some educators may receive training in a specific singular method they are often not required to have specific training in evidence-based practices specifically designed for individuals with autism (National Research Council, [4]). The teaching certifications required for instructing students with autism vary according to each state’s specific requirements.

Although some states have added certification requirements which require specific university coursework to be completed in autism others have minimized special education requirements. In many states, special education certifications are no longer a standalone certificate and teachers need to hold a general education certificate with an endorsement appropriate to the subject or grade level to be taught. This trend has further limited the qualifications of educators for teaching students with ASD. Therefore, educators may not have the teaching repertoire needed to address the heterogeneous learning needs of students with ASD.

The results of this study supported the hypothesis that educators who received training with a blended curricular model of professional development increased their repertoires for instructing students with ASD. Specifically they increased their knowledge of autism and educational treatment of autism, their self-efficacy of use of instructional methods, strategies, and supports for students with ASD, and the frequency of self-reported use of instructional methods, strategies and supports for students with ASD. Interestingly, although the application of instructional methods, strategies, and supports for students with autism did increase there was not a difference in application to students with mild autism versus use with students with severe autism. This finding indicated that participants applied the instructional methods, strategies, and learning supports for students with ASD to both students identified as having autism in the mild to moderate range and students identified as having autism in the moderate to severe range.

In regard to correlational findings between the variables of knowledge, self-efficacy, self report of use of instructional methods, strategies and supports, and application of instructional methods and strategies and learning supports several relationships were suggested by the findings. The correlation findings between post-
knowledge and post-efficacy suggested a positive relationship indicating that there is a chance that as participant knowledge increased, participant self-efficacy tended to increase. This finding seems self-explanatory as it would seem that as the participants’ knowledge increased their efficacy of use of instructional methods, strategies, and supports for students with ASD increased. The correlation findings between post-knowledge and post-application also suggested a positive relationship. This finding suggested that there is a chance that as knowledge of autism and educational treatments increased actually applying the instructional methods, strategies, and supports for students with ASD tended to increase. This would suggest that participants were actually implementing the instructional methods, strategies, and supports for students with ASD in which they were trained in and included in the professional development sessions.

The correlation findings between post-knowledge and post-report were interesting as they suggested a negative relationship. This finding may indicate that as knowledge increased, self-report of the use of instructional methods, strategies, and learning supports tended to decrease. This may be attributed to the increase in the knowledge and understanding of the accuracy and correctness of instructional methods, strategies, and learning supports for students with ASD. This may be attributed to a decrease in self-reporting of use instructional methods, strategies, and learning supports for students with ASD because participants did not report they were using a particular instructional methods, strategies, and learning supports if they had not applied it correctly.

The correlation findings between post-efficacy and post-application suggested a positive relationship. This finding indicates that as self-efficacy increased, application of instructional methods, strategies, and supports for students with ASD tended to increase. This could be contributed to that as the participant’s belief and confidence in the instructional methods, strategies, and supports for students with ASD increased the more they applied them with their students with ASD. The correlation findings between post-application and post-report suggested a positive relationship. This indicated that as application of instructional methods, strategies, and supports for students with ASD increased, self-report of the use of instructional methods, strategies, and learning supports tended to increase. This would indicate that as participants increased their ability to apply instructional methods, strategies, and supports for students with ASD, they then increased their use of applying these instructional methods, strategies, and supports. The correlation findings between post-efficacy and post-report was significant and suggested that a positive relationship existed. This finding was most significant and suggested that as participants self-efficacy increased they reported that they used the instructional methods and strategies and learning supports more.

Overall, the findings of this study indicated that educators can increase their knowledge of autism and educational treatment of autism, their self-efficacy of use of instructional methods, strategies, and supports for students with ASD, the frequency of self-reported use of instructional methods, strategies and supports for students with ASD and the application of instructional methods, strategies and supports to all students with ASD through use of a blended curricular model of professional development. Limitations of this study were in the areas of funding and methodology. This study’s funding was limited to implementing one treatment to a relatively large group. Future research should focus on implementing a blended curricular model of professional development to increase educator repertoires for instructing students with autism spectrum disorders using a pre/post group comparison design and possibly have both a control and comparison groups in which to implement a curricular model of professional development for increasing educators’ repertoires in instructing students with ASD.

5. References


The Effects of Inquiry and Expository Instructional Strategies on Achievement in Chemistry among Concrete and Formal Operational Secondary School Students in Kaduna State, Nigeria

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Abstract

The study compared the effectiveness of inquiry and expository instructional strategies on achievement in chemistry among concrete and formal operational reasoners. A sample of 166 students in four intact classes, two intact classes from each of the two secondary schools randomly selected for the study were exposed to inquiry instructional method while the other two intact classes from the second school were exposed to lecture method for six weeks. Each of the classes had two contact treatments of 1hr 20minute per each contact. The subjects in both schools were pretested using Chemistry Achievement Test (CAT) with reliability coefficient of 0.82 to determine their equivalence in ability. Their pretest score in GALT with a reliability coefficient of 0.88 was used to classify the subjects in each school to concrete and formal operational in reasoning ability. CAT was administered at the end of the treatment and data obtained were analyzed and the hypotheses stated were tested using t-test statistics at 0.05 level of significance. The study showed that the formal operation learners performed significantly better than the concrete operational learners under each of the instructional strategy. As formal operational learners benefited better in each of the instructional methods, it was recommended that teachers should use inquiry methods or any other methods that promotes cognitive functioning of learners to help them develop cognitive structures that enhance learning.

1. Introduction

Science educators have continued to lay emphasis that science concepts can only be learnt meaningfully when they are presented to match the reasoning ability of learners [22]. Learning material is said to match the ability of learners when they have capacity to comprehend the ideas to the level they can analyze them, compare them with old ideas to establish relationships, integrate new ideas with old ones to formulate complex ideas that have more embracing schema for processing and explaining subsequent encounters. Thus individuals become more competent reasoners by constantly adapting and evolving more complex schemas that have more interpretive power and enhance links with new encounters or ideas. Children at this level are inventive, intuitive, imaginative and find it very easy to interpret encounters as while as solve complex puzzles. They have different ways to combine information to formulate new and alternative combinations from old ideas and also put to test the effectiveness of such ideas they create. Piaget [21] described interpretive schema the “structure of the mind” which he defined as the source of our understanding of the world.

He suggested that our interpretive schemes or structure of the mind evolve as a result of successively more complex interactions with the world. Piaget theory is developmental in orientation, suggesting we begin by developing operations to act in our world and eventually, by the stage of formal operations, we have acquired abstract, logical-mathematical reasoning capacities that allow us to detach ourselves from the object world so that we can reason about it purely in logical terms. He described knowing as dialectical balance between the processes of accommodation and assimilation. He described assimilation as the integration of external elements into evolving or completed structures of an organization. He further stressed that elements are grafted into existing structures and new ideas are understood in terms of existing understanding. When integration is not possible due to dissonance or cognitive conflicts, the subject accommodates meaning as the cognitive structure or schema adapts as far as possible to make the learning material assimilable, or to make it easier to comprehend it. Organism constantly thrives toward the reduction of cognitive conflict in order to gain equilibrium.
Equilibrium is established through the dialectical interplay of assimilation and accommodation. The end result of this process of adaptation is an increasing ability to come to view knowledge objectively, a process Piaget described as decentering. Piaget [21] observed that it is the gradually emerging equilibration between assimilation and accommodation which make it possible for the subject to take the point of view of other subjects. He further stressed that a systematic decenteration process is a necessary condition for objectivity in learning.

There are findings that support Piaget theory that individuals ability to construct knowledge depends to an extent on their reasoning ability. Lawson [18] affirmed that the more skilled a learner is at hypothetico-deductive reasoning the better the student will be at constructing or learning new knowledge especially procedural knowledge. Several studies also show high correlationship between reasoning ability and academic achievement in science (Lawson [15]; Clark et al [5]; Mari [23]). Zohr and Nemlet [28] observed that this is because strong reasoning skills aid individuals in making connections between concepts which leads to greater conceptual understandings.

Piaget [20] pointed out that students actively construct their own knowledge, though social interaction is essential for cognitive development, but it is not enough as students’ developmental level determines how well a given task or interaction will promote cognitive development. Knowledge is not acquired by simple external pressure as an individual is not a simple tabula rasa on which social constraint imprints ready-made knowledge. For if the social milieu is really to influence individual brains, they have to be in a state of readiness to assimilate its contribution [9]. Cerebral development, though, necessary for interchange or acquisition of knowledge, is not sufficient to guarantee meaningful knowledge construction. This is because, students quite often do not recognize the gap or contradictions in their knowledge; or even if they recognize them, they may choose not to act upon them. This therefore calls for instruction or any form of interaction that will help them see contradictions in their thinking and also provide necessary stimulations for their resolution. This also points to the fact that the mode of instruction matters as not every instructional mode will provide relevant contractions and ways of resolving them.

Johnson [10] observed that the instructional strategy used determines the learning outcome and any strategy used should at the end help the learner as much as possible to apply what he learns. Robinson et.al [25] had also noted in his report that the amount of learning that takes place in a classroom is related to the instructional strategies employed. Several theories of educational and instructional practice have been proposed; however, most of the theory point to the fact that the learner is central to the success of every mode of instruction adopted as his/her cognitive structure and experience count a lot in instruction. Ormrod [19] buttressed this fact by pointing out that developmental level determines how well a given task or interaction will promote cognitive development. Also, according to Ausubel [2] learners acquire a hierarchically organized framework of specific concepts each of which permits them to make sense of new experience. By this, they tend to suggest that once learners have acquired an organized framework for making sense of new experience, they can learn new materials meaningfully even if they are presented verbally or by traditional instruction method. Piaget [21] seems to suggest that children or individuals at formal operational level of reasoning ability have acquired a stable cognitive structure that allows them process abstract concepts without reference to concrete materials. Thus, it seems reasonable that the expository strategy could be used to effectively enhance meaningful learning of concepts among formal than concrete reasoners who require concrete exemplars to comprehend formal or abstract concepts.

However, Votgotsky (1978) in his own theory believes that development is product of interaction with adult or more experienced peers. As children interact with adults they acquire cues which they internalize to create a mental structure that could enhance their ability to comprehend and internalize other cues in future interactions. He stressed that children could perform above their current level of development when they collaborate or receive help from people of higher ability. He coined a term “zone of proximal development” which he defined as the zone beyond students ability that they can only learn or solve problems with assistance by more capable individuals. In this zone, adult or more experience peers provide scaffolding for less matured individuals. Scaffolding according to him is provision of guidance to less experience individuals which they can incorporate into their cognitive structures. Zone of proximal development according to him has more impact in intellectual development than the child’s actual level of development. Other proponents believe knowledge is acquired as it is assimilated into pre-existing cognitive structures in long term memory. Thus, meaningful learning is possible if the adult or teacher directing it facilitate connections between learning material and previous experiences. Learning requires a strengthening of synapse by an
increase neurotransmitter release rate. This makes information more accessible as the connection is stronger and the signal transmit more easily [18]. Thus, if means of enhancing connections are sought and applied, learning can take place irrespective of the learners’ level of cognitive development. This may tend to support thesis that both formal and concrete operational learners irrespective of the difference in their level of cognitive development which seems to favor the formal operational reasoners, can equally benefit from lecture method provided meaningful connections are made between the learning material and the pre-existing knowledge.

On the other hand, literature has shown that inquiry strategy of teaching can enhance students’ achievement in science at the Senior Secondary School level (Shymansky [26], Forehand [6]; Geary [7]). The inquiry approach according to these researchers, can improve students’ performance in science subjects. Abdullahi defined inquiry method as the instructional strategy that involves an unstructured explanation in the laboratory in which students through their mental processes such as observations, experimentation, measuring etc. can draw general conclusion from the data which they have gathered [1]. Although, a few scholars (Cheng et. al [4], Shayer and Adey, 1993) argue to the contrary, the overwhelming evidence in literature is that the inquiry strategy is one of the most effective strategies of teaching science.

The question that can be asked concerning the inquiry strategy is whether or not it can improve the academic performance of students of varying reasoning abilities. This study investigated and compared the effect of inquiry and expository strategies on the achievement of concrete and formal reasoners, male and female students in the senior secondary school.

Additional studies by Bhattacharya and Han [3], Howe and Durr, (1982), Schneider and Renner, [24] suggested that the planned sequence, often referred to as “concrete instruction”, the inquiry instruction is particularly effective in promoting gains in both achievement and cognitive development for learners who are functioning at the level of concrete operations. On the other hand, expository instruction which focuses primarily on facts and concepts is effective for learners functioning at the level of formal operations.

Lawson [14] on the other hand proposed that reasoning ability may be a better predictor in inquiry classes because reasoning patterns are presumably required for use to inquire into phenomena, generate and test hypotheses and construct meanings from potentially confusing and disequilibrating inquiry experiences. On the other hand, Cantu and Herron, (1978) observed that once concrete materials are used in instruction as often done in inquiry learning, concrete level can be exposed to concepts no matter how abstract minded concrete props which model abstract concepts are used. This tends to suggest that both concrete and formal reasoners can benefit from inquiry instructional strategy. However, Clark classified theories into two categories: i) descriptive in which causal agents can be directly observed, sensed, and measured ii) theoretical concepts in which the causal agents are not observable and can only be learnt or acted upon by learners that have acquired formal reasoning [5]. This tend to show that even in inquiry learning where concrete examplars are used in instruction, formal reasoners may be more effective learners than concrete learners. This study was aimed at comparing the efficacy of lecture and inquiry strategies on the performance of formal and concrete operational learners.

2. Methodology

The pretest- posttest experimental design was used for the purpose of this study. Subjects of equivalent ability exposed to inquiry instructional strategy were compared with those exposed to expository instructional strategy. Four intact classes of senior secondary two (SS11) were randomly selected for the study. The two intact classes from each of the two secondary schools randomly selected for the study were tested with Group Assessment of Logical Thinking (GALT) developed by Roadrangka et.al (1982) with re-established reliability coefficient of 0.88 to classify them into concrete and formal reasoners. Subjects in the two intact classes in one of the schools were exposed to inquiry instructional strategy while those from the other school were exposed to expository instructional strategy. Chemistry Achievement Test (CAT) was administered to both groups as pretest before treatment to determine their equivalence in ability. After six weeks of treatment, a posttest was administered to determine the effect of the treatment or otherwise. The learning cycle inquiry mode used by Lawson [14] was adopted. It has three phases: Exploration, Term introduction, and concept application. In the concept application phase, initial physical or mental tasks which students are not accustomed to and are incapable of using their reasoning patterns to tackle them are introduced to create initial difficulties or cognitive dissonance. Students engaged in active physical activities create ideas and debate them. Questions were also raised that are not in laboratory manuals for students to answer, the questions were also meant to promote inquiry. In concept introduction phase the teacher
names and explains concepts identified by student in the exploration phase using a variety of methods based on their experiences in phase one. The students report their findings and are encouraged to formulate statements on the concepts or main ideas. In the concept application phase, the teacher provide activities or experiences for students to apply the concepts they have acquired or constructed or extend their reasoning. The phase also allows students relate the concepts with other concepts or ideas.

3. Presentation of Result

The results obtained are presented in Tables 4.1 – 4.7.

### Table 4.1 Distribution of scores on the Logical thinking test among the SSII science students.

<table>
<thead>
<tr>
<th>REASONING ABILITY GROUP</th>
<th>M</th>
<th>F</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Level Scores (0-5)</td>
<td>70</td>
<td>38</td>
<td>108 (65.1%)</td>
</tr>
<tr>
<td>Formal Level Scores (6-12)</td>
<td>32</td>
<td>26</td>
<td>58 (34.9%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>102</td>
<td>64</td>
<td>166</td>
</tr>
</tbody>
</table>

Applying Mari [22] mode of classification, the results show that only 34.9% of the subjects were functioning at formal operational level as measured by Group Assessment of Logical Thinking Test, and 65.1% were at concrete operational level.

### Table 4.2 t-test Statistics of Formal and Concrete Students Exposed to Inquiry Instructional Strategy

<table>
<thead>
<tr>
<th>Inquiry groups</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>S.D</th>
<th>S.E</th>
<th>df</th>
<th>t calc</th>
<th>t crit</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>formal students Score</td>
<td>48</td>
<td>91.56</td>
<td>7.6517</td>
<td>1.1044</td>
<td>164</td>
<td>23.38</td>
<td>1.96</td>
<td>0.00</td>
<td>S</td>
</tr>
<tr>
<td>Concrete students</td>
<td>118</td>
<td>55.94</td>
<td>9.3528</td>
<td>.8610</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at \( P \leq 0.05 \)

From Table 4.2, the result revealed that \( t \)-calculated is 23.38 at degree of freedom of 164 which is higher than the critical value of 1.96 and \( p \)-value of 0.00 observed is less than the level of significance set at \( P \leq 0.05 \). This indicates that there is significant difference between the academic performance of Concrete students and Formal students exposed to inquiry instructional strategy in favor of formal operational reasoners. Thus, the null hypothesis which states that there is no significant difference in achievement between concrete and formal students exposed to inquiry instructional strategy was rejected.

### Table 4.3. t-test Statistics of Formal and Concrete Operational Students exposed to Expository Instructional Strategy

<table>
<thead>
<tr>
<th>Expository groups</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>S.D</th>
<th>S.E</th>
<th>df</th>
<th>t calc</th>
<th>t crit</th>
<th>P</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal reasoners Score</td>
<td>48</td>
<td>67.75</td>
<td>8.0265</td>
<td>1.2100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>Concrete reasoners</td>
<td>118</td>
<td>42.15</td>
<td>8.5088</td>
<td>.7800</td>
<td>164</td>
<td>17.33</td>
<td>1.96</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

Significant at \( P \leq 0.05 \)

A careful study of the result from Table 4.3 revealed that \( t \)-calculated is 17.33 at degree of freedom of 164 was greater than the critical value(1.96). The \( p \)-value of 0.00 observed is less than the level of significance set at \( P \leq 0.05 \), which is an indication that there is significant difference in academic performance of concrete and formal students exposed to expository instructional strategy in favor of formal operational reasoners. Therefore the null hypothesis which states that there is no significant difference between the achievement of
formal and concrete operational students exposed to expository instructional strategy was rejected.

4. Discussion of the Findings

The result presented in Table 4.2 shows that significant difference exists between the performances of formal and concrete students’ exposed to inquiry instructional strategy in favor of the formal operational learners. The finding agrees with Saunders & Sheppardson (1997) who observed that Formal operational learners because of their higher cognitive functioning performed better than Concrete learners. Formal operational learners tend to be better than concrete learners in inquiry learning because they have acquired capacity to state plausible hypotheses, collect relevant data to test them and make valid conclusions and generalizations. They also find it easier to engage in inquiry learning as they have the capability to consider multiple alternative explanations for phenomena and to generate hypotheses to test such alternative explanations. These skills are also important to the process of conceptual change whereby students first must differentiate existing concepts then exchange old concepts into appropriate context. As these skills are relevant for engagement in meaningful inquiry, formal operational learners tend to do better. The fact that Formal learners performed better than Concrete learners is an indication that, though the use of concrete materials and activities enhance learning among Concrete learners but certain tasks no matter the mode of instruction or collaboration can only be learnt by Formal operational students, Thus, Formal students seem to be superior in learning compared to Concrete learners in both instructional methods.

The result presented in Table 4.3 shows that significant difference exists between the performances of formal and concrete students’ exposed to expository instructional strategy as the formal students performed better. Expository strategy focuses primarily on facts and concepts and according to Piaget (1958), learners at the formal operational stage have acquired schemes for abstraction deductive reasoning and think in abstract and also comprehend materials presented in abstract. These support findings by Johnson [10] who discovered a significant difference in academic performance of formal and concrete students exposed to expository strategy in favor of formal reasoners. Strong reasoning skills aid individuals in making connections between concepts. Zohr and Nemet [28] reported that individuals with advanced reasoning skills demonstrate greater conceptual understanding. Lawson [18] also affirmed that the more skilled a student is at hypothetico-deductive reasoning, the better the student will be at constructing knowledge. Individuals with high reasoning skills are expected to see contradictions in their opinions compared with others and should be able to think of ways of logically resolving them than those at low level of cognitive reasoning ability.

5. Conclusion/ Recommendation

The study established that formal operational learners tend to learn better than concrete operational learners in both lecture and inquiry instructional methods. This tends to support piaget theory more than more than Vygotsky. Piaget proposed that certain tasks were out of child’ ability if they require reasoning ability beyond his/her present cognitive stage of development. The thesis by Vygotsky that individuals performed any task provided they collaborate with someone of higher ability may not be completely correct as despite the use of concrete materials and good collaboration with both teachers and other students who were higher in ability, the concrete learners could still not learn certain tasks as efficient as formal operational reasoners. Lawson [17] and Clark et al. [5] observation that certain concepts called theoretical concepts can only be learnt by learners that have acquired formal reasoning ability seems reasonable. The fact that only 34.9% of the senior secondary have attained formal reasoning could be the major reason for low performance and high rate of misconceptions of chemistry concepts among learners in secondary schools., this study tend to show that unless efforts are made to promote cognitive functioning among learners in secondary school, low achievement and high level of misconceptions will continue to persist as learners that have not acquired formal reasoning cannot maximally benefit from instruction even if very effective methods like inquiry method is used. It was established that formal operational learners performed better than concrete learners in both instructional strategies. If the learning of chemistry would be promoted, efforts must be made to adopt instructional strategies that could promote cognitive gains i.e. acquisition of formal reasoning among learners such as using inquiry strategy or process skills instruction.. Teachers should also be encouraged to adopt inquiry method of teaching for concrete students to improve their performance in chemistry.

6. References


Session 16: Pedagogy

Meeting the Challenge of Diversity in Inclusive Classrooms: Voices of Pre-service General Education Teachers
(Authors: Sumaya Saqr, Lilly Tennant, Mariam Al Hammadi)

Culturally Responsive Pedagogy: Preparing Teachers to Educate from an Indigenous Perspective
(Author: Pamela Louderback)

Inclusion of Learners in a Culturally Alien School Environment: Cases of Cultural Resilience in a South African School Context
(Author: T.M. Makoelle)
Meeting the Challenge of Diversity in Inclusive Classrooms: Voices of Pre-service General Education Teachers

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1. Scope

Equity and quality in education has a high priority in the United Arab Emirates (UAE) education policy agenda. As teachers play a key role in contributing to this goal, Abu Dhabi Education Council aims to develop learning support teams to promote the inclusion of students with special educational needs. The classroom teacher is part of the Learning Support Team in each school. Therefore, it is expected that this teacher needs to make curricular accommodations for students with varying abilities in the inclusive classroom. Inclusion promotes quality education for all, including those who might be potentially marginalized due to disability, emotional / behavioral problems, giftedness, hearing or visual impairment, and language delay. Although this is a big challenge for all, it is an opportunity to advance the school as a change factor promoting dialogue and participation, making possible well-being through an education of quality for all without exception, and for the commitment of the community.

In this context, this exploratory study has addressed the quality of mainstream general education teachers needed for a 21st century school. The major focus area is on how senior pre-service teachers at a Bachelor of Education program deal with diverse learners in their own inclusive classrooms during internship. The research investigates how these teachers are prepared to work in inclusive settings. This is a qualitative research drawing on voices of these pre-service teachers as well as reviewing internship portfolios.

The presentation will discuss recommendations specifically to support further development of teacher education for inclusion. It sets out the research methodology and background context for teacher education for inclusion in UAE and includes information about the structure and content of teacher education programs, including teaching practice, the role and development of teacher educators and the competencies considered necessary to be an effective, inclusive teacher supporting diversity.

2. Objective and Motivation

Pre-service teacher education plays a major role in developing successful inclusive educational practices. The participants in this research project are prepared for a role involving a collaboration-consultation form of collaboration in which they, as general education teachers, request services of special education teachers to help generate ideas to address ongoing situations. Given that teachers have a great impact on their students, it is important to consider how prospective teachers position themselves regarding meeting the needs of gifted and other academically diverse learners in schools through differentiating instruction, and engaging with others in the school community.

The overall objectives of the study were to determine the level of preparation of pre-service teachers in meeting the needs of diverse learners, assist these teachers in their career development and planning, their transition to employment, further education and training, and in developing a disposition to lifelong learning. Furthermore, it not only contributes to the development of teachers equipped with the competencies needed for inclusive education, but also provides some suggestions about how teacher educators might upgrade their skills and expertise in teacher education for inclusion.
Culturally Responsive Pedagogy: Preparing Teachers to Educate from an Indigenous Perspective

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Abstract

After receiving an Institute for Museum and Library Services (IMLS) grant, one institution provided distributed, community-based instruction to rural areas and fostered a community of practice to support pre-service school library students. This article presents approaches and assessments based on the program that incorporated a culturally responsive pedagogy in its specialized curriculum and create information literacy resources to improve student success in racially diverse and economically disadvantaged northeast Oklahoma schools and communities. The article further reviews factors that influenced learning and teaching in this program. This unique program also provided the profession with targeted K-12 curriculum, resources, and information literacy tools to sustain the efforts of all school librarians who serve in similar communities across the nation. Lesson plans and learning resources created during and after the program continue to provide opportunities for cross-cultural dialogue between Indigenous and Non-Indigenous educators in shared study, mentoring, and faculty/teacher training.

1. Scope

Northeastern State University's (NSU) Project I'M READY in cooperation with the Cherokee Nation, the Oklahoma Department of Libraries, the Oklahoma State Regents for Higher Education, and targeted Oklahoma school districts provided an innovative program that educated nineteen school librarians to serve in high poverty rural areas of Oklahoma, and to develop culturally sensitive curriculum resources for schools serving Native American students. This unique program has influenced and enhanced the teaching and learning of their institution through using a key approach of integrating culturally sensitive evidence-based learning projects to build more practical experience into classroom instruction.

Project I'M READY’s story is relevant to researchers and educators because it focuses on the pedagogy of indigenous education by exploring the learning and experiences needed to shift our national mindset toward understanding and appreciation. It does so by specifically creating curriculum initiatives that bridge the knowledge gap and foster inclusiveness with a special focus on the roles and opportunities for education.

NSU continues to develop and disseminate culturally sensitive, digital curriculum and information literacy learning resources for use in school library instruction programs. This program provides the profession with targeted K-12 curriculum, resources, and information literacy tools that can be used to supplement and reinforce existing instruction efforts as well as to sustain the efforts of all school librarians who serve in similar communities across the nation to create cultural connections.

2. Objective and Motivation

Culturally relevant teaching was made popular by Dr. Gloria Ladson-Billings in the early 1990s, the term she created was defined as one "that empowers students to maintain cultural integrity, while succeeding academically. (Ladson-Billings, 1995). Cultural difference theorists concerned about the disparities in academic achievement between mainstream student and students who are marginalized within the schools and the larger society include Kathryn H. Au (1993), Gloria Ladson-Billings (1994), Lisa Delpit (1995), Jacqueline Jordan Irvine (2003), Luis Moll (Moll & Gonzalez, 2004), and Sonia Niero (2010) who have constructed a theory of culturally responsive teaching also termed culturally sensitive pedagogy. By applying these theories, educators may help to improve academic achievement of students from diverse racial, ethnic, cultural, linguistic, and social-class groups. It is further postulated that academic achievement of these students will increase if schools and teachers reflect and draw on their cultural and language strengths. One key educational researcher who has contributed significantly to the progression of culturally relevant teaching is Geneva Gay. In her
landmark book, *Culturally Responsive Teaching: Theory, Research, and Practice* (2010), the author expanded the traditional view of culture beyond race and ethnicity. She wrote, "Even without being consciously aware of it, culture determines how we think, believe, and behave". The teacher who practices culturally relevant teaching recognizes that culture manifests in a range of adaptations that demonstrate how students prefer to learn. A culturally responsive teacher uses differentiated instruction to tailor learning for every aspect of a student’s culture. Many of these researchers and educators support the constructivist theories of education because such perspectives recognize the value of multiple cultural viewpoints (Kea, Campbell-Whatley, & Richards, 2006).

Despite the steadily increasing numbers of culturally and linguistically diverse student populations in schools, not all teacher education programs readily embrace multicultural education or culturally responsive teacher education pedagogy. Some schools of education have acknowledged the need for developing culturally competent teachers, but others are not convinced of the academic merits of culturally responsive programming. A major part of the resistance comes from teacher educators’ discomfort, if not fear of, addressing issues such as race and racism in their courses, or even on their campuses (Cochran-Smith, 2004). If this practice is allowed to continue, children from ethnically and linguistically diverse backgrounds will go unserved and there will be a paucity of culturally competent properly prepared teachers in the classroom and an administration that possess a willingness to truly value and celebrate diversity in programming and practices. It is from this perspective that our institution created a distributed, community-based culturally responsive instruction that fostered a community of practice that supported the cohort of pre-service school library students in this program.

Gay (2010) defines culturally responsive teaching as using the cultural knowledge, prior experiences, and performance styles of diverse students to make learning more appropriate and effective for them; it teaches to and through the strengths of these students.

Gay (2010) also describes culturally responsive teaching as having these characteristics:

- It uses a wide variety of instructional strategies that are connected to different learning styles.
- It teaches students to know and praise their own and each other’s cultural heritages.
- It incorporates multicultural information, resources, and materials in all the subjects and skills routinely taught in schools (p. 29).

This article provides an introduction and overview of the Project I’M READY program that incorporates these characteristics in: develop a curriculum to address the unique needs of school librarians that provide kindergarten through twelfth grade (K-12) library services in rural communities with a high percentage of Native American citizens, including communities with high poverty levels; providing annual regional conferences and seminars that promote and disseminate research, best practices, resources, and pedagogy for educational improvement of the targeted populations; and researching, developing, creating, and disseminating online information literacy instruction modules that address information literacy standards for K-12 instruction and focus on the needs of racially diverse populations.

A specific challenge in areas of the United States exists in the students’ ability to physically access institutions of higher education (Luna & Medina, 2007). Most universities are located in urban and suburban regions, and students who live in rural communities often have difficulty driving long distances to attend classes in person on a university campus. Students who are able to attend evening courses often leave work early to drive several hours to campus, attend class, and then drive hours back to their home communities. Online education mitigates those challenges of traveling for students in rural areas of the country. However, rural areas often lack dependable Internet service, few households are able to access high-speed services commonly available in urban and suburban areas. Students who may wish to participate in online learning experiences often must contend with unreliable Internet access. This scenario represents the experiences of many of our institutions’ students. While there are students in the larger suburban and urban areas surrounding the main and branch campuses who have easy access to the university and its resources, students in rural communities often struggle to attend class or to participate in activities on campus (Kymes & Ray, 2011).

In order to address the needs of those students who wish to pursue an advanced degree, but who are place-bound (living in rural areas distant from the university community), our institution applied for a grant from the Institute of Museum and Library
Services (IMLS). By providing an online education program, our institution would be better able to prepare these place bound students to serve as school librarians in their rural school communities. The grant provided local hub-site instructional locations, distance education equipment, and technology and curricular resources and materials for the graduate students in this specialized cohort. Students were provided with a laptop computer with an integrated webcam, specialized educational software, a video camera, and e-reader devices. All books, tuition, fees, professional development opportunities and workshops are paid by the IMLS grant.

As candidates were identified for participation in the project, the selection of geographically convenient hubs became a necessary component of the overall plan. Additionally, areas with high percentages of Native K-12 student populations were selected. Because of the rural nature of the communities and the lack of widespread Internet access in some areas, public school sites served as remote instructional sites. District administrators and building principals were contacted to discuss the possibility of obtaining space in a remote classroom, utilizing the school space after-hours, and equipping the facility with the distance education equipment. Five hub sites were eventually selected and were strategically placed in these rural communities. Many of our candidates lived and taught in these areas, and had the opportunity to utilize the equipment at other times during their work day. Each of the remote sites were equipped with computers, Smart Boards, video cameras and microphones. At the end of the grant period, each of the schools were able retain the equipment and set up areas dedicated to distance education allowing schools to continue to provide education opportunities, higher educational courses and programs, and professional development programming to the five sites.

By creating local instructional sites, the schools benefitted by receiving additional distance education equipment, and the candidates were able to meet together in small groups and develop supportive networks and communities of practice. Wenger (1998) defines a community of practice as a group of individuals who meet together for the purpose of learning from one another, to share experiences, solutions to common or shared problems, and to find areas for coordination and cooperation. The small groups allowed students to have peer face-to-face communication and avoid prolonged isolation of the individual members. Students in the cohort were comprised of practicing, experienced classroom teachers, current librarians (working on provisional credential certificates), and some who were not currently employed within the education sector. This mixture of individuals gives each a valuable perspective on the readings, course work, field experiences, and whole group discussions to contribute to a larger and more complete understanding of the issues that face the rural communities in which they live and work, as well as the larger field of school librarianship. Yukawa (2010) notes that within the context of a community of practice, “learning is not merely knowledge acquisition but more fundamentally a process of identity formation and empowerment through participation” (p.55). Luna and Medina (2007) stress that adult learners seek practical, pertinent learning experiences within a supportive environment. By sharing individual experiences, stories from classrooms, struggles in schools, understandings of best teaching practices, and knowledge of students each member was able to contribute their part to a larger whole of understanding and deepen the learning experience of the small group that met together. Small and Palling (cited in Dow, 2008) stress the evidence from their longitudinal research indicating students enrolled in distance education courses found greater satisfaction in the social learning aspect of their studies when there were opportunities to develop interpersonal relationships. These opportunities are central to the delivery of courses and the rationale behind the establishment of these hub site locations.

This type of learning community that is built on shared experience and group knowledge development is a classic example of a constructivist learning community. Constructivist theory advances that students’ existing knowledge and life experiences are the components used to construct new knowledge structures as new information is provided. The students are active participants in the learning experience, and the teacher serves as a facilitator of the knowledge construction process (Leonard, 2002). Further, constructivist classrooms are beneficial to adult learners as they value the students’ lived experience. Their contribution of those experiences and knowledge are essential to the group and the classroom dynamic (Ruey, 2010). Many researchers and educators who embrace culturally responsive teaching also support the constructivist theories of education because such perspectives recognize the value of multiple cultural viewpoints (Kea, Campbell-Whatley, & Richards, 2006).

Because the learning sites were situated throughout the northeast and southeast regions of our state, learning opportunities and learning materials developed as a part of the courses were created to support the needs of the local schools and students. The program faculty members acknowledged constructing “area specific” projects, assignments, and new learning experiences that would be beneficial in positively affecting local schools in the candidates’ communities. Following Kazmer’s (2005) model of community embedded learning, the courses were designed to facilitate community-based
instructional change, and students were encouraged to use local school curricula as a basis for inquiry projects and bridge the cultures of home, school, and university. Most (2011) found that the majority of students in her study were able to make strong connections from the course content and learning objectives to their local workplace.

Graduate level school library media courses in this unique program utilized a curriculum that was designed to provide supplemental material that addresses social, economic, and educational improvement issues in rural communities with high poverty rates and high percentages of Native American students. Existing courses in the Library Media and Information Technology program were revised to address these social, economic, and educational improvement issues through modified courses that allowed for the instructors to include specialized readings, texts, and activities while remaining consistent with the NCATE/AL/AASL approved course sequence and major assessments and the guidelines of the institution. Gay’s (2010) *Culturally Responsive Teaching: Theory, Research, and Practice*, 2nd ed., was used as a supplemental text for candidates to become familiar with the practices of culturally responsive teaching and reflective self-assessment as they participate in the directed activities and experiences related to the IMLS grant. After reading this text, the candidates assessed their current teaching practices through reflective journaling and discussion board posts.

Courses were modified slightly to address the objectives of the grant. Students reflected on the grant objectives through the use of the ABC-CLIO database *The American Indian Experience* and multicultural videos available through NBC Learn via Blackboard. Selected collections of books by and about Native peoples were researched, vetted, and included for candidates to review and discuss; this allowed the candidates to immerse themselves in readings on the topic of multiculturalism. In the resource selection courses, candidates evaluated materials based upon issues of multicultural awareness. Students used evidence from articles, their own experiences, and professional thoughts to reinforce their responses by composing reflective journal entries throughout the program. In addition to these resources and curriculum provided to the cohort candidates, candidates were given assignments where they created a number of resources that could be used and enjoyed by K-12 students. One example included bibliographies of selected materials to be shared with tribal partners that might assist in the development of area tribal school libraries. In qualitative research classes, candidates conducted action research in the targeted communities to help broaden the professions’ understanding of the factors that impact student success in the targeted communities. Two courses (Advanced Materials for Young Adults, and Early and Emergent Literacy), provided the IMLS cohort candidates with additional literacy and reading terms, habits and tools needed to assess children’s literature and library materials for a multicultural student population. Candidates used a variety of strategies to promote leisure reading. They also modeled their personal enjoyment of reading in order to promote the habits of creative expression and lifelong reading through a teen culture project.

Candidates used young adult books representing Native cultures as their books for book discussions with K-12 students. Students located at the hub site areas were utilized for participants in the book discussions. As well, Native students from Sequoyah High School and Oaks Indian School participated in book discussions. Representative titles used for book discussion events included: Sacajawea by Joseph Bruchac, Rain is Not My Indian Name by Cynthia Leitich-Smith, Counting Coup: Becoming a Crow Chief on the Reservation and Beyond by Joseph Medicine Crow, Code Talker by Joseph Bruchac, Who Will Tell My Brother? by Marlene Carvell, Jim Thorpe by Joseph Bruchac, Cherokee Dragon by Robert J. Conley, and the Devil’s Paintbox by Victoria McKerman. Another course assignment involved reading a poetry chapter that highlighted Native American poetry books. Titles used for the poetry assignment included: Spirit Voices of Bones, Rising Voices, The Book of Medicines, and No Borders. All candidates read the following titles: Absolutely True Diary of a Part-Time Indian by Sherman Alexie for contemporary fiction and censorship; Pipestone, My Life in an Indian Boarding School by Adam Fortunate Eagle (Kindle version), for non-fiction, and Sitting Bull by Kate Petty for the graphic novel format. Journal articles and critical essays examined included: “Humor Is My Green Card”: A Conversation with Sherman Alexie; Alexie-Vision: Getting the Picture by Susan Bernardin; Absolutely True Tales of Censorship; and “I knew how to be moderate. And I knew how to obey”: The commonality of American Indian boarding school experiences, 1750s-1920s by Margaret Connell Szasz.

To illustrate a growing understanding of cultural responsiveness, following are several examples of comments provided by candidate regarding the Native American graphic novel Sitting Bull: The Life of a Lakota Sioux Chief:

“I came to the point that I felt like it was history that needs to be portrayed accurately. We cannot keep throwing a “shawl” over our Native American History because it’s not pretty. It isn’t all pretty, but it is true and we need to provide our students with accurate information.”

“I found Sitting Bull: The Life of a Lakota Sioux Chief to be the most informative piece of children’s literature that I have ever read. This graphic novel
held my attention throughout and I felt sad for the bloodshed that occurred throughout history between the Native Americans and whites.”

“History is important and sharing the history of all peoples, especially Native Americans, is important as teachers.”

In another course, one candidate reflected on the process of a reading ladder assignment with the following:

“This project paper is a reflection of how a reading ladder worked with one student. My student is an 11 year old girl who we will call Katnip. A nickname she took from a book read during this project. Katnip and I created a reading ladder based on a theme and changed it a few times along the way. The flexibility of the ladders makes them a valuable tool for the education and literacy tool box. The purpose of a ladder is to move a student’s skill level higher. Katnip started with a book that had a lexile of 670 and gracefully rose to a lexile of 1000. The ability to meet student interest in the present is a great motivational asset and through the progression expands their horizons in a very gentle way. This project has convinced me that this tool should be used in every classroom and library.”

In the Early and Emergent Literacy course, cohort candidates read and posted reflections on articles from the Oral Histories/ Culture/ Community section; from the Native American Literature/ Curriculum section; and from the Teaching Native American Students section concerning Native American students and success in school. Additional activities included case study reflections, textbook chapter presentations/ strategy demonstration reflections, annotated bibliographies, parental involvement pamphlets, and a mini inquiry on literacy. Resource bibliographies of recommended titles for use in school communities serving Native American students were also developed for practicing school librarians.

However, there are both strengths and weaknesses inherent in the use of the community embedded learning model. While the student is able to “bring back” ideas, lessons, theories, and values gained from the university to the local community, there is often resistance to an “outsider” viewpoint (Kazmer, 2005). Other teachers, administrators, and community members may be resistant to changes suggested by the library candidates. Similarly, over-reliance on the local, individual school setting can prevent the student from recognizing and valuing the differences that occur in communities other than the familiar. In order to balance this, the student candidates to look beyond their immediate responses to situations and beyond easy answers to issues of diversity within classrooms. This component helped offer a broader world-view for the students, and recognize the powerful role that culture plays in classrooms, schools, and communities.

The program faculty members, both of whom have extensive experience as practicing school librarians at all grade levels in public schools, recognize the need to serve as mentors to their preservice students. While the once-a-semester meetings allowed for face-to-face contact, the dynamic of the teacher-student relationship situated in the classroom experience did little to allow a mentoring relationship to develop. In order to provide additional time together in other settings, candidates are frequently given opportunities to attend professional conferences and workshops alongside the program faculty. New discussions and spaces for conversations were opened outside of the traditional, or even online, classroom.

Conferences and workshops allowed the candidates to network with other students, practicing librarians, and a number of other professionals from across the state. Throughout the grant, three Library Media Workshop (Author/Illustrator speaker series) author workshop experiences were provided where candidates were introduced to Native authors and storytellers such as Mr. Joseph Bruchac, Ms. Cynthia Leitisch Smith, and Mr. Sherman Alexie. These venues were available to grant cohort candidates and the community at large. In the author’s speaker series, cohort candidates were provided with an opportunity to broaden their understanding of the writing process and foster an appreciation for Native literature as they listened to the author and read the author’s works. Candidate’s written reflections demonstrated how the author’s works supported the curriculum. After attending the presentations given by the author/Illustrator students wrote a reflection paper on the author visit and books. The reflection papers included a summary of the presentation and what the student learned as it relates to how the stories, songs, etc. might be applied to the curriculum in a culturally responsive manner. Reflective journaling included comments on the question, how did the presentation deepen your understanding of Native American culture? What did you learn about Native American culture that can be taken back to your classroom? Responses included such comments as:

“Hearing Joseph Bruchac play the drum and flute and his use of chants or songs showed me how the Native American culture used these instruments and their music as a form of communication. He said, ‘Singing is a great way to learn things.’ Native
Americans used singing as a way of teaching and passing their heritage down to their children. I never knew how many different Native American tribes, cultures, and languages there are in North America. I also was not aware of how many stories there are in Native American cultures or other cultures throughout the world.”

In response to the question “What did you learn about Native American culture that can be taken back to your classroom?” candidates considered:

“The thing that I am most excited about taking back to my class is the opportunity for them to learn about the different Native American tribes. Every year our school hosts a “Cultural Day” in which Native Americans from the Cherokee tribe come and tell stories and share things from their culture (games, dress, dances, music, crafts, etc.). I want to share with students some of the stories that I have heard and allow them to research some other Native American tribes. One thing that I took away from this presentation that I thought was neat, was that we all have roots (ancestors, family, places, and personal experiences). This is a simple concept but I really liked how it was presented”.

The cohort candidates took part in intergenerational singing and storytelling programs – programs that bring skipped generations together to create learning and interactional opportunities through singing (Heydon, 2012). Such programs clearly illustrates participants’ learning, communication, and relationship-building. Recounting of this observation can have a productive effect on listeners, opening them up to the potentialities of children and elders or at the very least, inviting them to ask questions and wondering about their own assumptions concerning education. The intergenerational classes are beautiful examples of curriculum and pedagogy that have created opportunities for people to communicate and learn together within the context of relationship. It can provide educators with insights into how the curricula in such programs might expand participants’ communication and identity options while helping to foster and support intergenerational relationships as well as cultural understanding.

Intercultural communication workshops and storytelling workshops with Gayle Ross - Cherokee Nation storyteller and descendant of chief John Ross, the principal chief of the Cherokee Nation during the infamous Trail of Tears, and with Gene Tagaban - an internationally renowned Tlingit Native American performance artist, musician and global educator provided venues for Indigenous and non-Indigenous to share Native wisdom and talent via dance, native flute and storytelling. As the Project I’M READY candidates began their own professional careers, the knowledge gained at these conferences and workshops strengthened their practice. Engaging in group discussion and reflection on topics and sessions allowed the faculty and students to develop deeper professional relationships with one another. Outside of the confines of the classroom environment, apart from the structure of assignments and grades, students were willing to ask deeper questions, reveal personalities and preferences, and engage with faculty in a more natural and relaxed manner.

Additionally, culturally sensitive K-12 curriculum resources that focused on literacy were developed during the grant program. True multicultural education promotes understanding and cooperation through the use of authentic literature. Educational materials provided in libraries and used in classrooms should be as authentic and accurate as possible. Guiding students toward asking questions and finding their own answers is vital. One helpful technique in this process is to expose students of a variety of ethnic groups and ages to authentic works of native literature. Learning from authentic literature means not learning or perpetuating stereotypes. Literacy through themes that native students understand can provide positive opportunities for increased educational success. Instructional resources created for the IMLS website included literacy lesson plans and accompanying interactive Smartboard activities based on: graphic novels of trickster stories; the history of the Trail of Tears; storytelling and how to create your own stories; and the use of a variety of poems as an expression of thought or feeling (metaphor, simile, rhyme, personification). Examples of literacy lesson plans and accompanying interactive material may be found at www.nsuok.edu/imready. YouTube videos on a variety of topics were created to support and supplement learning resources and lesson plans. Some examples include: Indian Territory Days at the Cherokee Heritage Cultural Center; bow making by Cherokee National Treasure, Noel Grayson; Danny McCarter, Cherokee blowgun maker; Gayle Ross, Cherokee storyteller; and the Chickasaw Nation story of the three sisters Examples of these videos and others may be found at: http://www.youtube.com/user/projectimready

The objective of the grant was to provide an example of a work in progress that used culturally responsive pedagogy. It provided a forum for scholars/practitioners in the field that focuses on fostering interdisciplinary and participatory dialogue and linking theory, empirical study, policy, activism, and practice. It also provided an opportunity to incorporate intercultural rhetoric and Indigenous research methodologies that flow from tribal knowledge while being allied with Western qualitative approaches such as ways of knowing, story as method, cultural protocol, meaning-making, and ethical responsibility. Further, it offers a “success story” to key administrators who may wish
to create courses and whole degree programs that link Native and Western ways of knowing, and that blend ancient wisdom with modern curriculum. As Sonia Nieto (in Hobel & Chapman, 2010) notes, without an awareness of the issues of power, privilege, identity, and diversity in education, teachers are doomed to approach their instruction, and their students, in simplistic and uncritical ways that will do little to prepare them for the complex and heterogeneous world in which we live. The Project I’M READY program offers opportunities to share practical suggestions on knowledge transfer/techniques that deepen both faculty and student understanding from a cultural context. Through theoretical discussions, practical applications, and culturally responsive lesson plans and activities, this program will help provide a template for all K-12 teachers to bridge the gap between their own reality and that of their students.

References


Inclusion of Learners in a Culturally Alien School Environment: Cases of Cultural Resilience in a South African School Context

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Abstract

South Africa is a multicultural society. Since the advent of the new educational dispensation in 1994, schools are accommodating learners from different cultures in response to the policy of equity, inclusion and non-discrimination enshrined in the new Constitution of the country. The cultural composition of schools has therefore changed. The qualitative study on which this article is based used structuration theory to analyze how learners accommodated in culturally alien school environments cope and often thrive despite their belonging to a cultural minority. The notions of agent, agency and structure were used to elucidate the research process which gathered data from the narratives of three purposefully selected learners who were accommodated in a culturally alien school environment. To triangulate the data from the narratives of the three learners, focus-group interviews were conducted with five teachers and five learners from the dominant culture at the school where the minority learners were accommodated. An inductive framework was used to analyze the narratives. The findings indicated among other things that a culturally alien school environment could have a negative effect on the learning of cultural minorities in schools; however, if the learners are culturally resilient, the effect of cultural domination can be significantly reduced. Therefore, to enhance the inclusion of cultural minorities, it is recommended that schools develop cultural resilience programmes.

1. Introduction

In terms of the South African Constitution (Republic of South Africa [RSA], 1996a), all learners have the right to education. The South African Schools Act of 1996 (RSA, 1996b) makes provision for the admission of learners to the school of their choice where it is reasonably practicable. Education White Paper 6 issued by the Department of Education (DoE) in 2001 is a guiding policy framework that determines the inclusivity of schools regardless of the learners’ cultural backgrounds. Since the implementation of inclusive education as a result of reforms by the South African government to create an all-inclusive education system, schools have accommodated learners from different cultural backgrounds [14]. As a result of the policy of separate development for different racial and ethnic groups (apartheid) by the previous government, schools were also established along racial and ethnic lines. The Group Areas Act of 1950 (RSA 1950c) separated and forced blacks, coloureds, whites and Indians to live in different residential areas and attend different schools segregated along racial lines. Despite the advent of the new political dispensation, schools still mirror these divisions of the old order whereby certain cultures are still dominant in schools. For instance, the ex-model C schools, which were exclusively for whites, are still dominated by both white learners and teachers. These schools have admitted few black, coloured and Indian learners and the culture in these school often discriminates against learners from a so-called ‘non-white’ cultural background. My observation is that learners in culturally alien school environments have two options: to resist enculturation or risk not being well accommodated in the prevailing cultural context. Consequently, they make little academic progress. This study therefore analyses cases of inclusion among learners in a culturally alien selected ex-model C school in South Africa. The following research questions were posed:

- Which factors contribute to learner inclusion or exclusion and in a culturally alien school environment?
- How can learners be included in a culturally alien school environment?

2. Theoretical Framework

The theory of structuration was used as a lens to conceptualize the notion of cultural inclusion and resilience. According to Giddens [7], [8], there is a relationship between agents, agency and structure. While agents are role players within the structure, agency is the ability of agents to operate within the structure and determines how effectively or ineffectively they will function within the structure. Giddens postulates that agency has the potential to
influence the nature of the structure, and vice versa. Consequently, this relationship of mutual influence constitutes a duality of structure and agency - that is, a constant interplay between structure and agency, each of which could influence the nature of the other. This principle becomes significant and explains how the school’s cultural milieu could constrain the agency of learners, particularly when the culture is foreign to the learner. It is also pivotal in analyzing how learner agency can overcome the constraining effect of the alien culture. It follows that the inclusion of learners in an alien culture poses a challenge to learner agency and resilience in a culture that is different from their own. In order to understand the notion of cultural resilience in an inclusive environment, where the learners belong to a minority group within a culturally dominant alien environment, it is important to understand the role of agency and resilience, as well as how well agency through resilience can impact on the nature of structure (the alien school culture). The cultural milieu constrains learner agency. In the study on which this article is based, the ability of the learners to overcome the constraints of their culturally alien environment required a heightened sense of agency and consequently a high level of cultural resilience. Because of the significance of the concepts of inclusion, culture and resilience, the subsequent section provides a brief discussion of these key terms to build a conceptual framework on which the arguments in this study are based.

3. Conceptualizing the Constructs Inclusion, Culture and Resilience

Inclusive education became the focus of education in South Africa and other parts of the world following international declarations, statements and treaties such as the Salamanca Statement [12]. In line with international developments, South Africa implemented inclusive education which was promulgated in White Paper 6 (RSA, 2001). This paper became the blueprint for implementing inclusive education. This new approach has been widely researched but is often misconstrued to mean that disabled learners are included in the mainstream of education [10]. In this paper, inclusive education is conceptualized as a kind of education that accommodates all learners, regardless of their background and factors such as disability, gender and culture. The paper focuses on the aspect of culture and how it relates to inclusion and resilience. Inclusive education is premised on the assumption that schools and their classrooms should embrace all learners from different cultural backgrounds [1]. In terms of the South African Constitution (RSA, 1996a) and since the advent of the new educational dispensation, all learners, regardless of their background, can now be accommodated in all schools [15]. The South African Schools Act (RSA, 1996b) makes provision for the admission of all learners to all schools. Schools are categorized into mainstream schools, accommodating learners with mild learning barriers; full service schools, which provide a wider range of support to all learners; and special resource centres, which cater for learners with more severe barriers to learning while providing support to the aforementioned categories of schools [13]. It is important to discuss cultural inclusion within South African schools since schools predominantly serve the cultural groups in the communities where they are based. Mostly these communities are divided according to race, which pre-determines the kind of culture that will predominate in a particular school.

Nieto conceptualizes culture as “the ever-changing values, traditions, social and political relationships and worldview created, shared and transformed by a group of people bound together by a combination of factors that can include a common history, geographic location, language, social class and religion” [11]. The definition indicates that culture should not be limited to race or ethnicity as often happens. Nieto provides an insightful account of culture by disentangling its characteristics. For instance, culture is regarded as dynamic (non-static), metabolic and ever-changing. It is also thought to be multifaceted, heterogeneous, and diversified. Nieto further contends that culture is embedded in specific contexts and thus unique in terms of time and space. The significance of the social, economic and political factors shaping culture cannot be ignored, nor can culture be divorced from the notion of power. The notion of Bourdieu’s social capital becomes significant in determining the social standing of the individual in relation to power. Culture is a social construction and therefore changes with human actions. It is discursively produced and thus subject to reconstruction from time to time. Nieto postulates that culture is learned through interaction with those in the immediate environment. It is dialectical in the sense that it speaks to people’s consciousness and provides space for accepting or rejecting its influence. In the study on which this article is based, culture was viewed in terms of the racial and linguistic dimensions that had characterized the South African population for many years before.

Culture and education are regarded as inseparable entities. According to UNESCO [23], education is a vehicle through which cultural values are transmitted from generation to generation. Bruner [21], posits that:

"culture shapes [the] mind … It provides us with the tool kit by which we construct not only our worlds but our very conceptions of ourselves and our powers … You cannot understand mental activity unless you take into account the cultural setting and
its resources, the very things that give mind its shape and scope. Learning, remembering, talking, and imagining - all of them are made possible by participating in culture.

This quotation stresses the significance of culture in education in that it shapes people’s thinking and therefore how they learn and acquire new knowledge. Culture seems to be rooted in epistemological conceptions and beliefs. Demmert discusses culturally-based education (CBE), which presupposes the use of indigenous languages, a culturally relevant pedagogy, leadership, decision-making and assessment [4]. This implies that education is culturally sensitive if it takes into account the cultural needs of learners. This view is echoed by Banks [3], who advocates multiculturalism in education which embraces cultural differences. Banks identifies five dimensions of multiculturalism in education:

- Content integration, which integrates cultural context into content;
- Knowledge construction, which is knowing how knowledge is constructed in order to be critical of assumptions about diverse forms of epistemology;
- Equity pedagogy, which means being able to respond in an equitable manner to the cultural needs of all learners in the classroom, thus inculcating a positive attitude towards cultural difference;
- Prejudice reduction, which means demystifying myths and stereotypes about different cultural groupings; and
- Multicultural education, which suggests an avoidance of non-empowering practices that seek to perpetuate cultural dominance and prejudice.

However, according to Obanya, culture and education in Africa have not been well served by colonization as, in most instances [17]; the school culture is based on western forms of schooling which are largely alien to the culture of African families and communities. While education should seek to transmit cultural heritage, this was disrupted as colonization brought alien cultural practices that led to an identity crisis on part of the African child. For a period from 1950 to 1994 South African schools were divided according to race, ethnicity and class, therefore Obanya’s argument remains relevant and appropriate in describing the state of affairs in South African schools [17].

In the light of Obanya’s arguments, it is important to determine why some learners manage to thrive in culturally foreign school environments despite being culturally colonised. The notion of cultural resilience is central to describing this learner adaptation to a culturally different school environment. In terms of the ecological perspective, resilience denotes the individual’s capacity to achieve positive outcomes in the face of adversity, to continue to function effectively in adverse circumstances, or recover after significant trauma [16]. According to this view, resilience is the result of ordinary adaptive coping systems residing in the individual as well as in institutions that support well-being, for example families, schools and community resources and services. These systems should be protected and kept in good working order for development to persist robustly despite the severe adversity experienced by an individual.

Resilience is no longer regarded as an individual attribute that one may or may not have. Rather, it is noted when one demonstrates the capacity to navigate and negotiate one’s pathways towards resilience-promoting resources which communities must be able to provide in culturally meaningful ways [25]. This means that, according to the social ecology perspective of resilience, resilience is a bi-directional phenomenon that relies on what is found within individuals and in their social and physical ecologies [24]; [22]. In this regard, a child combines personal strengths and resilience resources that caring and supportive parents, peers, teachers and communities provide for him or her to be resilient. Donald, Lazarus and Lolwana [6] therefore define resilience as the ability to maintain “a balance between the stressors and developmental risks to which learners are exposed on the one hand, and the protective factors that might be operating for them on the other”. The protective factors that enhance resilience are divided into, firstly, internal attributes such as intellectual, communication, decision-making and problem-solving skills; positive self-concept, feelings of self-worth and confidence; a strong sense of autonomy, identity, purposefulness and positive values and beliefs; and a strong internal locus of control. Secondly, there are the external resources from the immediate environment which include a stable and consistent relationship with the care-giver; a family that encourages competence; a family that is supportive, a network of peers, supportive significant others, and a supportive neighbourhood. For the purposes of the study on which this article is based, resilience in the cultural context was conceptualised as the ability of the individual to adapt to an environment which is culturally foreign and to continue to thrive and operate effectively in that culture.

4. Methodology

The study was conducted qualitatively. Three learners and a focus group of five teachers from a selected secondary school participated in the study. The learners were purposefully selected from the school in which their culture was a minority. The learners came from a poor predominantly black community and were accommodated in a mainly
affluent white school (which was previously white-only and only started accommodating black learners since the new education dispensation post-1994). The school had 90% white Afrikaans-speaking learners and 10% black learners (predominantly from the Sotho ethnic group). The teachers were all white Afrikaans-speakers, except for the Sesotho and Life Orientation teacher. The media of instruction at the school were Afrikaans and English.

Learner 1: Dan (pseudonym), a Grade 11 black male learner was from a black township. He had been raised by a single mother who was a domestic worker. He spoke Sesotho fluently, English fairly well, and struggled with Afrikaans.

Learner 2: Mary (pseudonym), a Grade 12 black female learner, was from a black township. She had been raised by her unemployed mother who relied on the state grant of her younger sibling. She spoke Sesotho and struggled with English and Afrikaans.

Learner 3: Emily (pseudonym) was a Grade 11 black female learner from a black township. She lived with her uncle who worked at the local municipality as a cleaner. She spoke Sesotho fluently but struggled with English and Afrikaans.

Narratives were obtained from the three learners, the focus group interview of teachers (three Afrikaans- and two Sotho-speaking teachers), and from a focus group of learners belonging to the dominant culture. The interview data were voice-recorded, transcribed and analysed. The following questions were posed to the three learners to solicit narrative responses:

- Can you briefly narrate what makes you feel either culturally and linguistically included or excluded at this school?
- What would you want teachers to do for you to be feel more included (or part) of this school?

Five teachers were conveniently selected from those who taught the three learners who participated in the study. Except for the Sesotho and Life Orientation teachers, who were employed during the new education dispensation, the teachers were all permanently employed at the school and had taught at there before and after 1994. The teachers were asked the following question: What do you think makes or would make learners who are a cultural and linguistic minority at your school feel more included or excluded? The focus group of learners from the dominant culture were asked this question: What do you think makes learners who are a cultural and linguistic minority feel more included or excluded at this school? A process of inductive analysis was followed to examine the data within the framework of the structuration principle of duality between the agent (the learner), agency (the learner’s ability to learn within the culturally alien environment) and structure (the culturally alien environment). The following questions were asked to guide the analysis:

- How does learner agency relate to cultural resilience and thus to inclusion?
- How do learners use agency to overcome the constraining effect of their alien cultural conditions?
- What are the structural mechanisms that enhance cultural resilience and thus the inclusion of learners?

The three questions were asked continuously to analyse the role of agency and the constraining effect of the structure and how the two play out in the narratives of the three learners and the responses of the teachers and learners from the dominant culture. The following steps were followed in the analysis of the narratives and focus-group interview transcripts (see Laws, Harper & Marcus, 2003, p. 395):

Step 1: Reading and re-reading of all the collected data: The purpose of reading the data closely was to ensure that we were fully conversant with the facts, thus making the process of analysis more manageable.

Step 2: Compiling a preliminary list of themes arising from the data and then expanding the list to make the process more manageable.

Step 3: Re-reading the data again several times to confirm the themes and to verify that the interpretations were correct.

Step 4: Linking the themes to quotations and notes: we jotted down themes alongside the quotations and notes as we went through the data.

Step 5: Perusing the categories of themes to interpret the data and answer the research questions.

Step 6: Designing a tool to assist the researchers in discerning patterns in the data. In order to triangulate and determine the patterns during the data analysis, a spreadsheet was used to give a summary of the themes. For example, the spreadsheet recorded the title of the theme and quotations from the different sets of data.

Step 7: Interpreting the data and deriving meaning: During this stage, we re-read the quotations and derived the meanings in relation to each of them. This resulted in my interpretations, which we presented according to each theme.

5. Findings

In the course of analyzing data, the following themes emerged:
Theme 1: Culture, power, leadership and decision-making

The data indicated that cultural dominance was associated with power, authority and control. Learners and teachers from the dominant culture expressed the view that the school was essentially theirs and they therefore believed that they held legitimate powers of leadership, decision-making and authority. For instance, one of the teachers remarked: “This school has a history with us; therefore it is only logical that most of the things will be done the way it has always been.” This statement shows that power and decision-making still reflected the ethos of the school prior to the advent of the new dispensation and the accommodation of minority learners. The statement also suggests that the cultural ethos of the school had not been transformed sufficiently to include those who were not from the dominant culture. Learners from the dominant culture seemed to think that it was fair that none of the minority learners should have an equal chance of being represented in the student leadership body (Learner Representative Council) because they did not have enough votes to be represented. Consequently, the student leadership body continued to be under the control of the dominant culture. For instance, one of the learners from the dominant culture posited: “I think our Sotho learners came to our school knowing that it was predominantly Afrikaans; unfortunately, if they are not happy, they must go to schools in the township.” This statement implies that the process of decision-making will always be centered on the dominant culture and that those from the minority group will have to toe the line. Learners from the minority group expressed the view that they were not necessarily content with the fact that the school had not employed black teachers which, they felt, could impact on the balance of power and decision-making. For example, one of them stated: “I think we are here but at this school they are expecting us to behave as if we are not black, everything is done according to what they (meaning those from dominant culture) want.” The quotation suggests that learners from the minority cultural group are powerless and unable to influence the ethos of the school for them to be included. This view was supported by the only teacher from the minority group who remarked:

I sometimes feel that more has to be done to make sure that black learners are heard, as of now they have less influence and thus decide not to participate in some of the activities because they feel left out … this is not deliberate but some stuff have been done even before they could be accommodated in this school, so not much has really changed.

Theme 2: Teaching and learning

The findings of the study suggest that, at the time of the research, teaching and learning had not actually been transformed into a culturally responsive approach. For instance, learners from the minority group expressed the wish that some of their teachers could have learned their mother-tongue so that they could interpret for them if they did not understand. One of the learners stated:

Because we are taught in English, sometimes we do not understand but the teacher will choose to explain in Afrikaans which is still not our language. I guess if they could speak Sesotho, we could then interact easier.

The findings suggest that the language issue influenced epistemology and knowledge construction in that the subject content was mostly taught using references from the dominant culture; therefore, little reference was made to cultural artifacts which could otherwise strengthen knowledge construction by learners from the cultural minority. For example, this view was echoed by the black Life Orientation teacher who remarked: “I think some [of] the stuff they teach us could be better understood if they relate to the situation of black learners; I can see that when I teach Life Orientation.”

Learners from the minority cultural group felt that sometimes they were being discriminated against because of prejudice based on stereotypes. For instance, they alluded to the fact that they did not regard the marking of tests as fair because only learners from the dominant cultural group obtained high grades. One of the learners complained: “ It is surprising that in most subjects and classes only they get highest marks and even during the prize-giving most of them get more certificates and trophies; how can that be, or does it mean we are stupid?” This statement implies that perhaps there could be cultural bias to assessment and that stereotypes have not been done away with in relation to the scholastic performances of minority learners. This opinion was supported by the following statement by the Life Orientation teacher who happened to be from the minority cultural group: “Mostly black learners score high marks in our subjects; that is, Sesotho and Life Orientation.”

Theme 3: Empowering practices

The findings indicate that there are empowering and disempowering practices within cultural domination, which can be expressed in the form of the following sub-themes:

Gratitude and appreciation

Appreciation of minorities emerged as one of the empowering aspects and enhanced the extent to
which learners felt part of the school, although their culture was not valorized; for instance, one of the three learners stated: “I think when teachers and learners appreciate and acknowledge that we are different, it will make us feel accepted as part of the school.” This view was supported by one of the teachers from the dominant culture who said: “Well, I see that when I appreciate the Sotho learners - for example [when] I talk about their culture - they show much appreciation.”

Unconditional acceptance

The study suggests that learners are more inclined to feel part of the school if they are unconditionally accepted by teachers despite their cultural differences. In this regard, one of the three learners said:

Teachers usually focus on the other learners, even when they greet us and talk to us outside the classroom, they would greet in Afrikaans even when you are there. They expect you to greet back in Afrikaans or English, only Mr X (pseudonym) is trying to greet in Sesotho.

Transparency and reward system

The study showed that a lack of transparency in relation to reward systems is disempowering. For example, one of the three learners remarked on this state of affairs as follows: “Usually, the choice of best performing learner in different subjects is done unfairly, how can it be that in certain subjects none of us do well?” The statement suggests that learners from the minority culture are unclear about how some reward systems function and suspect that they are based on a culturally biased subjective process. It was evident, for example, that in extra-curricular activities such as sport the choice of team captains was done in an unfair manner. One of the three learners lamented: “Even if you are good, they always find it hard to select you as captain because usually it is expected that the captain will come from one of them.”

Theme 4: Cultural resilience

The resilience framework of Donald et al. for classifying the protective factors within cultural domination was used to generate the main themes from which the following sub-themes emerged [6]:

Internal protective aspects

This theme addressed the innate aspects of the learners that enhanced their cultural resilience. Analysis of the narratives revealed that culturally resilient learners are able to communicate and talk about their plight clearly to others, thus providing a platform to share ideas about how best to deal with their current state of affairs. For instance, one of the three said: “Well, we talk to one another about the situation; we console one another if we feel down or rejected”

The analysis also indicated that for learners to be culturally resilient, they had to have a positive image of themselves, be aware of their abilities and confident that they could succeed despite the conditions they found themselves in. For example, one of the three learners remarked: “Even when you are sometimes thought to be inferior, you just have to work hard against all odds.”

The analysis showed that the culturally resilient learners were essentially independent in their quest for success and demonstrated the ability to be self-reliant. One of the three learners postulated: “Because they [referring to teachers and learners from the dominant culture] here think we are lazy and perhaps not bright enough, it is important to be self-directing and work hard yourself.”

External resources

This sub-theme addressed the external resources of learners that enhanced their cultural resilience. The findings showed that the resilient learners had a stable relationship with their parents, families and that this relationship encouraged them to work harder despite their adverse circumstances, as one of the three learners indicated: “Myself and my mom talk about the situation and [she] will often tell me that I am here to work and not worry about other people.”

The findings further reveal that the culturally resilient learners had around them a circle of supportive peers which provided aid during trying times. For instance, speaking about his peers, one of the three learners stated: “While it is sometimes difficult, but we get courage with the fact that we can do things as Sotho speaking [Sotho-speakers] the way we want when we are on our own.”

It follows that the three Sotho-speaking learners derived courage from and regarded their Sotho teachers as role models. In this regard, one of the three learners had this to say: “I think the support we get from the two black teachers is significant for our well-being: they always motivate and encourage us to do well despite everything.” This quoted statement attests to the fact that learners from a minority culture suffer from low expectations on the part of teachers from the dominant cultural group, but to motivate themselves they derive support from the black teachers at the school. It seems that the black
teachers at the school were regarded as symbolic role models.

6. Discussion of Findings

The study has found that cultural domination structurally has a constraining effect on the agency of learners for inclusion. However, the study has also shown that learners have a profound influence on the extent to which they are restricted and constrained by an alien cultural context. Cultural resilience has been found to be instrumental in assisting learners to overcome cultural constraints [7], [8].

The findings further indicate that cultural resilience is significant for adaptation to a challenging environment [24] and therefore for cultural inclusion within schools that are still divided along ethnic, linguistic and racial lines.

The study has furthermore confirmed that resilience is significant for adaptation to a challenging environment [24] and therefore for cultural resilience. For instance, the innate characteristics include the ability to communicate well with others, to have a positive self-image, and to be self-reliant [6].

The study has revealed that, for learners to be culturally resilient, they need the moral support of their parents and families, and that they should at least have peers from the same cultural background as a support group [6]. It is also evident that teachers from a minority culture can have a positive impact on minority-group learners by acting as role models and providing guidance to them.

7. Conclusion and Recommendations

The study reported on in this article has provided valuable input into the notion of culturally based education and contributed fundamental insights into how South African schools could avoid cultural exclusion and promote cultural inclusion. Based on the findings of the study, it is logical to recommend the following:

- Schools should develop mechanisms to enhance cultural integration by ensuring that their cultural ethos reflects the cultural dynamics of their student population.
- School should be sensitive to making their teaching and learning responsive to the needs of learners regardless of their cultural background [3].
- The staff and learners from a dominant culture should shift their beliefs and conceptions about cultural minorities towards expressing more gratitude and appreciation for other cultures, showing transparency in reward systems, and expressing unconditional acceptance of all.
- Schools need a resilience programme for minority learners that will empower them with communication skills, motivate them to develop their self-concept and esteem, and enhance their capacity for self-reliance. The support mechanisms provided by families, peers and teachers from a similar cultural background would increase their resilience.

While the study was conducted at only one school, the findings however could apply to many South African schools. The study lays a firm foundation for cultural inclusion within schools that are still divided along ethnic, linguistic and racial lines.

References


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Disability and Diversity: An Examination of the Special Education in the Indian Context
(Author: Rajasekhar Vijjeswarapu)

Leading Optimal Inclusionary Practice for Cognitively Delayed Students
(Authors: Shelleyann Scott, Elaine Fournier)

A Study of the Impact of School-Wide Positive Behavior Support (SWEPBS) on Elementary School Students with Behavioral Turbulence
(Authors: Hung-Yuan Li, Chia-Chieh Wu)

Assessment of Challenges Faced by Students with Special Needs in Nigerian Universities
(Authors: Obi Florence Banku, Orim Samuel Orim, Patrick I. Egaga)

The Family as a Factor in the Successful Implementation of Community-Based Rehabilitation in Nigeria
(Authors: Ahon Adaka T., Florence Banku Obi, Emmanuel Ikwem)
1. Introduction

As Pundit Jawaharlal Nehru, the first Prime Minister of India has famously put it: India is a country of unity in diversity” [3]. With its current size of around 1.2 billion population, providing education to all the citizens has always been a daunting task for the governing classes. Given the most democratic, rights based constitution, Governments from time-to-time took steps to make education easily available to the marginalized sections of the society. While more than 35% of the population largely belonging to various castes, tribe and other regionally backward sections could reap the benefits of these enabling provisions, one particular group of citizens who were left behind for all these decades are persons with disabilities.

The irony, however, is that the Indian Constitution is nevertheless silent on the rights of persons with disabilities. Article 41 of the Indian constitution, while making an oblique reference to disablement, only goes as far as saying that the “State shall undertake programs within the limits of economic capacity and possibility”.

Thanks to the worldwide movement for equal opportunities and protection of rights of persons with disabilities, the Indian government began to pay some attention to the special needs of children with disabilities. Article 41 of the Indian constitution, while making an oblique reference to disablement, only goes as far as saying that the “State shall undertake programs within the limits of economic capacity and possibility”.

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with inclusive education) instead of segregation (a consequence of special education) became a new mantra. The real fillip to inclusive education assumed significance when Sarva Shiksha Abhiyan (SSA), a nodal scheme of the federal Government took up seriously the cause of education for children with special needs by combining the hitherto schemes under current for these children. The SSA in the year 2006 conceived a multi-optional delivery system, wherein both the inclusive and special education were given due preference based on the contextual needs of the local population. The underlying framework of the SSA, however, began to operate largely under the rubric of inclusive education. It is since hereafter that an all-encompassing category called “children with special needs” began to find place in the parlance of educational policy.

3. Inclusive Education and SSA under the RTE Regime

Right To Education RTE mandates free and compulsory education to all children from 6-14 years of age with Universalization of Elementary Education (UEE as its main objective). It stresses upon the access, enrolment and retention of all children in the age group of 6-14 years. This goal of UEE has been facilitated by the Constitutional (86th Amendment) Act, making free and compulsory elementary education a Fundamental Right for all the children in the age group of 6-14 years.

Quite overtly, though, this Constitutional amendment has given a new thrust to the education of Children With Special Needs, for without their inclusion the very objective of UEE has the danger of remaining unfulfilled in the first place. It is because of this reason that the education of children with special needs became an integral component of school education in the country today.

SSA makes a financial provision for an annual assistance upto Rs.3,000/- (roughly $50) per child. District plans for children with special needs are, therefore, formulated within the Rs.3,000/- per child norm, with 1,000/- (roughly $17) ear-marked exclusively for engaging resource persons.

The interventions under SSA for inclusive education include: identification, functional and formal assessment, appropriate educational placement, preparation of Individualized Educational Plan, provision of aids and appliances, teacher training, resource support, removal of architectural barriers, research, monitoring and evaluation and special focus on girls with special needs. SSA ensures that every child with special needs is provided meaningful and quality education and has the right to education and taught in an environment, which is best suited to his/her learning needs. These include special schools, EGS, AIE or even home-based education [1].

As it is clear from the goals sought to be achieved through the intervention of SSA, the major thrust is on inclusion or mainstreaming children with disabilities into the fabric of formal elementary schooling. Most children with special needs can be enrolled and retained in regular schools if adequate resource support is provided to them; others might need some kind of pre-integration orientation before they can be mainstreamed in a classroom. Of course, children with severe disabilities would require an intensive, specialized support. Unfortunately, it is here that the SSA programme has very little to offer.

SSA, then, has adopted a more expansive and broad-based conceptual understanding of inclusion, wherein a multi-option model of educating children with special needs remains a priority. The dual objective of embracing this model is to bring more children with special needs under the umbrella of SSA and to provide them with appropriate need-based skills, be it vocational training, functional literacy or simple activities of daily living in the most appropriate learning environment.

The implementation of this multi-option model of inclusion in SSA has been made possible due to the flexibility offered to each State by the programme. Although most SSA States have identified and enrolled children with special needs in schools, they differ in the approaches and strategies adopted to achieve the ultimate objective of inclusion. Some States conduct residential bridge courses for children with special needs with the main objective of preparing them for mainstream schooling. Besides, some 27 States adopt home-based education for children with severe disabilities either to prepare them for schools or for their life ahead by imparting basic living skills to them. Again, different States adopt different ways of providing home-based support to children with disabilities. While some states are using NGOs for this purpose, others are engaging volunteers who visit the homes of children with special needs and provide them with basic functional skills. Still other states are using special schools as resource centres to provide short-time or part-time help to individual children with special needs and their parents [2].

Parental counselling and vocational training are two important aspects of the entire home-based instruction programme. Through home-based education, SSA has been able to cover 138,000 children with special needs resulting an increased and sustainable school-community linkage by actively involving parents in the educational process of their children.

There can be no inclusion of children with special needs without adequate resource support. This aspect has been taken care of in SSA mainly through NGOs, inclusive education resource teachers (IERTs), volunteers or by imparting long-term training to regular teachers on inclusion [5].
Assistive devices and barrier free access are the other vital areas that aim at enhancement of mobility of children with special needs to promote their easy access to the schools. Around 1,837,000 children with special needs (72.49% in need of aids and appliances) under SSA have been provided assistive devices through various modes. These practices and innovations in SSA are leading to a gradual increase in the identification of children with special needs. From 1,459,000 children with special needs identified in 2003-04, the number has now gone up to 3,042,000. Similarly, the enrolment of children with special needs has gone up to 2,595,000 children (85.33%) as compared to 1,171,000 in 2003-04.

The current coverage of children with special needs is 2,780,000 (91.39% of their total population). The expenditure on inclusive education in SSA has also shown an upward trend. From a mere 26% expenditure in 2003-04, the States have shown an overall expenditure of 78.88% on children with special needs inclusion related activities in 2009-10 [7].

It can be seen from the foregoing that several novel initiatives have been taken up to address the divergent needs of special children. An endeavour has also been made to develop teachers, necessary attitude, skills and competencies required to deal effectively with children with various special educational needs.

4. Areas of Concern in Inclusive Education

Despite the progress noticeable in the gradual evolution of inclusive education system in India, a brief sketch of which has been outlined above, the model suffers mainly in the following areas:

First, the figures brought out by the Government agencies from time-to-time are proving to be unreliable on several accounts. Look at, for example, the percentage of children with special needs in proportion to the total child population works out to be just 1.50%, whereas the census 2001 and 2011 actually puts the figure of people suffering from some or the other disability at around 3% of the total population. There clearly is a huge gap between the census data and the SSA figures of child population. Hence is an immediate need for scientific data collection.

Second, there is a need for monitoring mechanisms to assess both the qualitative and quantitative progress in inclusive education.

Third, there is a need for more emphasis on classroom practices and teaching methods adopted by teachers for effective classroom management of children with special needs.

Fourth, barrier-free environment in the educational places is still a cause of concern.

It needs reiteration that the schemes launched so far have not yielded desired results in either the increase of enrollment or the quality of education for children and young learners with disabilities. Various national statistics on literacy reveal a wide gap between the numbers of general population when compared to children with disabilities. Illiteracy levels are high across all categories of disability. Total literacy for the entire population remains an unfinished national agenda due to erratic political will any marginal improvement with respect to the increase in literacy rate among children with disabilities is due to the efforts of nongovernmental organizations. The National Statistics Senses referred to by the World Bank report of 2007, the National Council for Educational Research and Training NCERT, the Ministry of Human Resource Development MHRD and even from SSA present a confusing picture of poor statistics on enrollment, inadequate funding for special schools, lack of training among many other discrepancies with respect to the primary education for children with disabilities.

Another disturbing trend is noticed when we look at the increasing number of special schools in cities compared to that of those in rural areas. The urban based special schools function in a segregated environment for the sake of a select group of children mostly belonging from middle to higher income groups.

Though the inclusive education for the disabled children (IEDC) scheme grants financial allowances, material benefits and methodological guidance for children with disabilities, for parents and even for instructors, much is yet to be achieved. While implementing the IEDC scheme, different states have different performance record. While some states show a greater commitment towards inclusive education, several other states are lagging behind.

5. Few Observations on Higher Education Scenario

In order to promote better educational facilities to students with disabilities at the higher education level at universities and colleges, the Government through the Universities Grants Commission UGC has been formulating a slew of measures from time to time, particularly in the last decade or so.

The UGC is advocating setting up of what are called “equal Opportunity Cells (EOCs)” at universities and undergraduate colleges where there is a minimum enrolment of 10 students with disabilities. The EOC is supported with an annual budgetary allocation and is managed with dedicated staff. The allocated funds are usually spent for the procurement of tape recorders, braille machines, hearing devices and any other useful devices for the benefit of students with disabilities. Ideally, the EOCs are responsible for the implementation of
3 percent reservation in admission to various courses in their respective institutions. Sensitisation of the higher education community about the potentials and problems of students with disabilities is another objective of the EOC. In addition, the EOC is also expected to run from time-to-time the remedial teaching programmes to support students with special needs.

Several leading universities and colleges across the country began to take advantage of the provision for EOCs, and a tangible change for the better is visible in the recent past. However, the scheme could not be implemented at far-flung universities due to lack of dissemination of information.

The infrastructural and financial incentives apart, sometimes the epicentres of higher education themselves turn ignorant when it comes to making the right sense of education on, and for, persons with disabilities. The case in point is the way in which Indira Gandhi National Open university – the largest open university in India – runs one of its departments in the name of ‘Centre for Disability Studies’, which in actuality offers nothing more than a couple of diploma courses on special education. In the understanding of the learned gentry in this university, then, disability studies is merely an algorithm to train the curious job seekers as special educators.

6. Conclusions

Having outlined briefly the sectoral schemes and programmes being implemented for meeting the educational needs of children/students/researchers with disabilities, I cannot but confess that most of these policy changes are the direct result of the PWD Act 1995 and the subsequent decision by the Indian Government to sign and ratify the United Nations Convention on Rights of Persons with Disabilities (UNCRPD) 2007. Thus, most of these schemes and programmes under review are of very recent origin. Given the slow pace of decision-making and equally unimpressive pattern of implementation, the intended outcomes are highly difficult to obtain. Unlike in the United States of America, the participation of civil society organisations in policy-formulation and implementation is still at nascent stage. I think the first and foremost condition for any society to value the education for persons with disabilities is founded on a premise that persons with disabilities are as resourceful as their so-called non-disabled counterparts.

7. References


Leading Optimal Inclusionary Practice for Cognitively Delayed Students

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1. Scope

This research paper focuses on leadership for effective inclusion for students with cognitive challenges. As leadership is pivotal to enhancing student outcomes we explore how leaders influence teachers and promote inclusionary practices in terms of facilitating professional development and differentiation in instruction and assessment. Deconstructing two case studies in relation to the literature we illustrate the complexities in addressing teaching and learning for inclusion, and highlight the importance of principals having an ethic of care and an appreciation of diversity. An inclusive leadership framework is proposed which articulates the essential knowledge, skills, and attitudes/beliefs principals and system leaders must acquire and refine in order to effectively lead in diverse schools and systems.

In the exploration of the research it was overtly evident that educators are grappling with differentiation and its implications for them as leaders of learning due to an inherent lack of preparation and pragmatic professional development. We therefore created two models designed to address the demand for building leadership capacity at the system and school levels that encompass leaders, educators, as well as paraprofessionals in the pursuit of enhanced outcomes for students with special needs. The foundation of the capacity building models is the development of a pool of expert leaders who can engage in peer coaching relationships thereby influencing professional development and team-based case management. We advocate for closer community engagement between university experts and school systems, as well as a greater nexus between inclusion theory and practical pedagogical differentiation in preservice programmes.

2. Objective and Motivation

Inclusion is difficult for most teachers and even more difficult for principals, hence, the purpose of this paper is to identify the key knowledge, skills, and attitudes/beliefs (KSAs) leaders must acquire in order to effectively lead inclusion. Most principals were educated for a different school context to the one in which they now lead so this raises the issue of how can school districts provide appropriate leadership development and professional development that can promote optimal inclusionary leadership and pedagogical practices.

Our motivation is guided by a sense of social justice for special needs students but also empathy for educators and leaders who are tasked with supporting the diverse educational needs of their students and we aim to provide practical advice on what KSAs and underpinning philosophies and beliefs leaders must develop in order to be effective leaders for inclusion at the school and district levels with pragmatic implications for capacity building.
A Study of the Impact of School-Wide Positive Behavior Support (SWPBS) on Elementary School Students with Behavioral Turbulence

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2School of Music, The Ohio State University

1. Scope

The purpose of the study is to examine the impact of school-wide positive behavior support (SWPBS) on elementary school students with behavioral turbulence in Taiwan. Participants in this study are divided into two levels. The primary level of SWPBS participants: whole school students in an elementary school. The secondary level of SWPBS participants: purposive sampling from some potential high-risk participants who have no responses to the school-wide positive behavior support (SWPBS).

Researchers will collect data from various sources including (1) weekly statistical tables of students’ behavioral problems, (2) weekly statistical tables of students attaining honor cards, (3) school-wide positive behavior support plan execution checklist, (4) intervention of secondary prevention interview record sheet, (5) behavioral observation record sheet, and (6) daily progress record sheet.

In research variables, two levels—primary and secondary—will be examined from both independent and dependent variables. In the primary intervention level, the independent variable is school-wide positive behavior support plan. The dependent variables contain “rate of students’ behavioral problems”, and “numbers of students attaining honor card”. In the secondary intervention level, the independent variable is “behavior education program (BEP)”. The dependent variable is “rate of students’ target behavioral problems”.

Data analysis will contain data from both primary and secondary intervention levels. In the primary intervention level, one-group pretest-posttest design will be recorded to examine the SWPBS program on dependent variables, which are “rate of students’ behavioral problems” and the “number of students attaining honor cards”. In the secondary intervention level, researchers will assure high-risk students’ target behavioral problems through “behavior observation” and “functional assessment interview (FAI)”, and collect data from “multiple probe design across subject” of “single subject design”. Finally, visual analysis will be utilized to analyze the results.

2. Objective and Motivation

2.1. Objective

Three objectives include (1) explore the effect of school-wide positive behavior support (SWPBS) for elementary school students with discipline and behavioral problems, (2) explore the effect of school-wide positive behavior support (SWPBS) for well-behaved elementary school students, and (3) explore the effect of school-wide positive behavior support (SWPBS) for high-risk elementary school students.

2.2. Motivation

Sprague and Horner (2006) indicate that more than 30 states in the U.S have adopted school-wide positive behavior support (SWPBS) to reduce the frequency of behavioral problems. It is an evidence-based design. Since evidence-based research on school-wide positive behavior support (SWPBS) is relatively lower than that of the U.S., researchers are eager to probe whether school-wide positive behavior support (SWPBS) is applicable to prevent behavioral problems in elementary schools in Taiwan. The study aims to examine the impact of school-wide positive behavior support (SWPBS) on elementary school students with behavioral turbulence in Taiwan. Based on the research results to reduce students’ behavioral problems, and improve their academic and social adaptation.
Assessment of Challenges Faced by Students with Special Needs in Nigerian Universities

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Faculty of Education, University of Calabar
Nigeria

Abstract

The study assessed the challenges students with special needs faced in Nigerian universities. A survey design was adopted and questionnaire was used as instrument for data collection. The findings revealed that students with disabilities in Nigerian universities are exposed to human, financial, architectural and environmentally based challenges which negatively affect their academics. Consequently, it was recommended that stakeholders particularly university managers should be proactive and committed to measures that would address these challenges.

1. Introduction

Education has remained the bedrock and tool for personal and national development as well as a right of all human beings including those with disabilities or special needs. In Nigeria, the National Policy on Education (2004) adopted it “as an instrument par excellence for effecting national development”. Like in most parts of the world, formal education is acquired in the school system, structured from pre-primary to university level.

University is the peak of the education system and it is primarily concerned with teaching, research and community service with the aim of producing high level manpower. Mgbekem, noted that “universities are established to create knowledge and skills for Nigerians to harness economic activities for national development and meaningful contribution to the global world” [2].

Global and national policies such as Education for All (EFA) and the Nigerian Universal Basic Education (UBE) are launched and implemented with principal mandate to increase access to quality education for persons with special needs. Since the launching of these policies in 1990 and 2004, the population of children with disabilities in Nigerian Universities has significantly increased. In the worlds on Obani [3], “new trends in educational policies have opened the door of the school system to clients with disabilities”. Comparatively, the author maintained that “between the era of EFA and UBE in Nigeria the number of persons with disabilities in universities has increased seven times what had existed”.

In Nigeria, university education enhances an individual standing in the society, hence acquiring a degree is a mark of honour and scholarship to the individual.

In recent times, the numbers of persons with disabilities who desire and gain admission into Nigerian universities has increased. Despite this accessibility to university education by PWDs there seem to be no marked increased in the provision of facilities and resources to enhance their learning.

Experiences and researchers such as Ezewfor-Ozoji, Jurnang, Mungu [1], Olayi, Orim and Ewa [4] indicated that persons with disabilities in universities are exposed to myriad of challenges which militate against their education and personal development.

It is against this background that this study is designed to access the challenges persons with disabilities face in Nigerian universities.

2. Research Rationale

2.1. Problem

Inclusion and accessibility of PWDs has become a common vocabulary among special education practitioners and policy makers in Nigeria academic environment, yet very little action is being taken to make learning effective for them. The discriminating attitude of not admitting PWDs in Nigeria Universities have finally given way. Many PWDs are studying in almost all Nigerian University today. For instance, the University of Jos, in the North, Ibadan in the West and Calabar in the South alone have more than 50 persons with disability. Unfortunately despite this seeming gain in admission, universities are still ill prepared to meet the challenges of special students in terms of facilities and equipment.

The National Universities Commission which is the Regulatory body for Nigerian Universities included accessibility of building as one of her criteria for accreditation of universities. Despite this,
accessibility seems to be one of the greatest challenges.

2.2. Purpose

The purpose of the study is to assess the challenges faced by special needs students in Nigerian Universities. Specifically, the study sought to assess the nature of facilities and equipment available in universities, the support services offered to special needs students and the general attitude of staff and students towards them.

3. Methods

The South South is one of the 6 geopolitical zones in Nigeria. It is made up of 6 states. These states are also the Oil Producing States of the Country. The South South has 6 Federal Universities, 7 States Universities and 4 private universities.

3.1. Sample

50 under-graduates students with disabilities were sampled across the Federal Universities. The breakdown is as follows:

3.2. Instrument and Procedure

A total of 50 questionnaires were distributed to the 50 identified students with disabilities in the 6 Federal Universities. The completed questionnaires were returned, making a return rate of 100%. The questionnaires contained 20 items on a 4 point likert scale. In addition respondents were asked to list the services they are currently enjoying and those they expect the Institutions to provide.

4. Results

The results are outlined in Table 2, Table 3 and Table 4:

Table 1: Sampled universities and number of respondents

<table>
<thead>
<tr>
<th>S/N</th>
<th>UNIVERSITIES</th>
<th>NO. SAMPLED</th>
<th>% SAMPLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>University of Benin</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>University of Lagos</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>3</td>
<td>University of Port Harcourt</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>University of Uyo</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Federal University of Otuoke</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Federal University of Petroleum Resources</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>TOTAL</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

Further breakdown shows that principally three categories of students are in universities

- The Visually Impaired
- The hearing Impaired
- The Physical Impaired

4.1. Table 2: Showing Responses from the Respondents

<table>
<thead>
<tr>
<th>S/NO</th>
<th>STATEMENT</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>MEAN</th>
<th>DECISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The general attitudes of university community is negative</td>
<td>N=38</td>
<td>% =76</td>
<td>N=8</td>
<td>% =16</td>
<td>N=3</td>
<td>% =6</td>
</tr>
<tr>
<td>2</td>
<td>Access to structures/facilities is the greatest difficulty in this university.</td>
<td>N=42</td>
<td>% =84</td>
<td>N=12</td>
<td>% =24</td>
<td>N=1</td>
<td>% =2</td>
</tr>
<tr>
<td>3</td>
<td>Braille, sign language interpreters and wheel chairs are available on demand.</td>
<td>N=12</td>
<td>% =24</td>
<td>N=7</td>
<td>% =14</td>
<td>N=11</td>
<td>% =22</td>
</tr>
<tr>
<td>4</td>
<td>It is difficult to access information.</td>
<td>N=8</td>
<td>% =16</td>
<td>N=7</td>
<td>% =14</td>
<td>N=14</td>
<td>% =28</td>
</tr>
<tr>
<td>5</td>
<td>Lecturers and other academic activities are adapted to meet our needs.</td>
<td>N=10</td>
<td>% =20</td>
<td>N=11</td>
<td>% =22</td>
<td>N=6</td>
<td>% =12</td>
</tr>
<tr>
<td>6</td>
<td>Newly admitted special students are provided with counselling services.</td>
<td>N=4</td>
<td>% =8</td>
<td>N=6</td>
<td>% =12</td>
<td>N=15</td>
<td>% =30</td>
</tr>
<tr>
<td>7</td>
<td>The university provides adequate facilities/equipment that enhances my studies.</td>
<td>N=5</td>
<td>% =10</td>
<td>N=7</td>
<td>% =14</td>
<td>N=13</td>
<td>% =26</td>
</tr>
<tr>
<td>8</td>
<td>Support services for my disability are adequately provided in my university.</td>
<td>N=6</td>
<td>% =12</td>
<td>N=5</td>
<td>% =10</td>
<td>N=11</td>
<td>% =22</td>
</tr>
<tr>
<td>9</td>
<td>I am on Federal Government Scholarship/bursary.</td>
<td>N=1</td>
<td>% =2</td>
<td>N=2</td>
<td>% =4</td>
<td>N=10</td>
<td>% =20</td>
</tr>
<tr>
<td>10</td>
<td>I am on scholarship/bursary from the state.</td>
<td>N=7</td>
<td>% =14</td>
<td>N=10</td>
<td>% =20</td>
<td>N=14</td>
<td>% =28</td>
</tr>
<tr>
<td>11</td>
<td>I am on a private scholarship from donor agencies/individual.</td>
<td>N=35</td>
<td>% =70</td>
<td>N=10</td>
<td>% =20</td>
<td>N=3</td>
<td>% =6</td>
</tr>
<tr>
<td>12</td>
<td>Recreational facilities in the university are not disability friendly.</td>
<td>N=10</td>
<td>% =20</td>
<td>N=2</td>
<td>% =4</td>
<td>N=1</td>
<td>% =2</td>
</tr>
<tr>
<td>13</td>
<td>We don’t take part in sport, due to absence of adapted sports facilities.</td>
<td>N=4</td>
<td>% =8</td>
<td>N=3</td>
<td>% =6</td>
<td>N=1</td>
<td>% =2</td>
</tr>
<tr>
<td>14</td>
<td>There is a disability centre for new students to go to for counseling/information.</td>
<td>N=6</td>
<td>% =12</td>
<td>N=5</td>
<td>% =10</td>
<td>N=11</td>
<td>% =22</td>
</tr>
<tr>
<td>15</td>
<td>The University provides additional support during exams.</td>
<td>N=2</td>
<td>% =4</td>
<td>N=3</td>
<td>% =6</td>
<td>N=15</td>
<td>% =30</td>
</tr>
</tbody>
</table>

Key: AAC = Accepted As Challenge
Table 3: Services Provided by Institutions

<table>
<thead>
<tr>
<th>S/N</th>
<th>SERVICES PROVIDED</th>
<th>RESPONDENTS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sign Languages</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>2.</td>
<td>Interpreters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Counseling Services</td>
<td>18</td>
<td>36</td>
</tr>
<tr>
<td>4.</td>
<td>Accommodation</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>5.</td>
<td>Information Services</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>6.</td>
<td>Braille Services</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 4: List of Services they will want their Institutions to Provide

<table>
<thead>
<tr>
<th>S/N</th>
<th>SERVICES PROVIDED</th>
<th>RESPONDENTS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Counseling Service</td>
<td>42</td>
<td>84</td>
</tr>
<tr>
<td>2.</td>
<td>More Interpreters Services</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>Braille Examination Questions</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>4.</td>
<td>Braille Books</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>5.</td>
<td>Braille Machines and Embossers</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>6.</td>
<td>Sighted Guides</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>7.</td>
<td>More time during examinations writing</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>8.</td>
<td>Financial Support</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>9.</td>
<td>Amplifiers in the classroom</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>10.</td>
<td>Auditory/Oral Training</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>11.</td>
<td>Mobility Aids</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>12.</td>
<td>Accessibility Buildings</td>
<td>38</td>
<td>76</td>
</tr>
<tr>
<td>13.</td>
<td>Special Forum with PWDs</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>14.</td>
<td>Bus dedicated to PWDs/Transportation</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>15.</td>
<td>A Disability Centre in the University</td>
<td>42</td>
<td>84</td>
</tr>
</tbody>
</table>

5. Discussion

The findings of this study revealed that even in the 21st century the attitude of Nigerian university communities to students with disabilities is still negative despite the level of awareness by professional groups and other stakeholders. It agrees with Ozoji whose study on attitudes of Nigerians towards the blind reveals a negative, discriminatory and hostile trend particularly among school communities [6]. This trend becomes worrisome when enlightened communities like the university is associated with this defective disposition. As noted by Ozoji, an attitude determines whatever anyone does for this client [6].

This study equally reveals that the university environment is full of mobility and architectural barriers; hence clients or students have difficulties accessing offices, lecture halls, and facilities in their universities. This is confirmed by Chang, Trembaye and Dunbar (2002), their study discovered that the architectural and interior designs of public structures constitute major obstacle to persons with disabilities particularly those with visual and physical impairments.

It was further revealed in this study that most Nigerian universities have no blue-print on disability matters. This document ought to be a roadmap to implementation of disability-friend policies. It absence speaks volume. This is contrary to what standard in universities is developed world [10].

This study also shows that clients with disabilities like visual impairment do not access information directly and this affect them in many ways especially now that accessing information Nigeria is human right issue. This denial amount to human right violation and disintegration form the university system. This situation is against United Nations principle of accessibility [10].

The study indicates that lecture and other core academic activities such as test and examination are not adapted to the unique needs of the students. The implication of this is that those who have visual impairments are given print question papers. This is at variance with the global best practices is special needs education (United Nation, 2004).

It was revealed that form this study that there is lack of adequate awareness on disability among Nigerian university communities. This is in agreement with Ozoji [6], whose study emphasized the relationship between awareness and attitudes of the public. In the world of the author, an informed public or community is likely to have positive disposition to persons with disabilities in the same direction, university of Michigan (2013) found out that awareness determines public perception of the clients with disabilities. These findings are supported by Ozoji [6] who is a survey of services cardinal to development of persons with disabilities indentified services mentioned above and re-emphasized the necessity of these services as a condition for functional education of the clients.

Access to funds and scholarships is an important as gaining admission into the university. The findings revealed that the target population is unable to access funds and scholarship opportunities. This in addition to the poor background of person with disabilities makes to see university education as uphill task meant for those without disabilities. This si contrary to what is obtainable in University of
Michigan where students access financial assistance under emergency funding to take medical, major accidents/events such as fire and natural disasters (University of Michigan, 2013). This leads to digital divide based problems.

Nigerian universities system does not practice inclusive approach in students’ union politics as students with disabilities are not integrated into political processes that go on their universities. This is at variance with the fundamental human right as advocated by United Nations Convention of Rights of Persons with Disabilities, this exclusion from students, union politics denied these students opportunity of acquiring leadership abilities that would have being transfer to macro politics in the society for national development.

From the result of this study, Nigerian universities have no adapted sport and recreational programme and facilities. This negates the principle of balance education. This implies that students with disabilities do not participate in variety of sporting/recreational activities that would have developed their psychomotor domain, increase their level of social interaction, network of relationship and ease the stress and tension associated with academic activities. This practice is contrary to what the provisions in American popular law, Individual with Disabilities Education Act (IDEA) 2004, (US Congress, 2004).

Tables 3 and 4 show that most students with disabilities (SWDs) are provided with hostel accommodation, followed by Sign Language and Counselling Services.

On services they want institutions to provide for them the students listed Financial as the most needed support. This was followed by transportation, more time in examination writing and accessibility to buildings.

6. Recommendation

Based on the findings of this study, the following recommendations are made.

- Desk officers on disability matters should be created with the mandate to create awareness on disabilities among the universities communities.
- Nigerian universities should have functional blue-print on disability which would act as roadmap to having a university community that is disability-friendly.
- The global policy on creating inclusive community should be implemented in all aspects of Nigerian universities operations to give the students a sense of belonging and human dignity.
- It is recommended that universities as a matter of urgency make provisions for special students on admission. They are also need for some financial benefits or weavers in some school charges to be given to those students.

This is more important since the blueprint on disability studies education is free at all levels for SWDs. The need for the establishment of disability paid counseling centre’s as provided for by NUC guidelines cannot be over emphasized. So also is the issue of accessibility.

7. Conclusion

One must commend the universities for opening their admission gates to People with Disabilities (PWDs) in Nigeria. However, this must be followed up with the provision of the needed basic facilities and services that make for effective teaching and learning.

8. References


The Family as a Factor in the Successful Implementation of Community-Based Rehabilitation in Nigeria

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2 University of Calabar, Calabar-Nigeria

1. Introduction

In a global context, community-based rehabilitation (CBR) is the primary means by which people with disabilities (PWDs) have unfettered access to rehabilitation or disability services [3]. In other words, CBR is a strategy within general community development for rehabilitation, equalization of opportunities and social inclusion of PWDs. CBR exists in an array of styles and approaches across developing and developed countries of the world, with notable differences as well as similarities based on the context of its socio-economic development. The advocacy for CBR was popularly promoted by the World Health Organization in the mid-1970s to address the limited nature of the rehabilitation workforce in developing countries, through the provision of basic services at a community level, incorporating principles of primary health care, relevant rehabilitation practices, and seeking to use local resources and build local skills [6].

2. The Concept of CBR

There is a wide diversity of meanings currently associated with the term 'CBR'. However, there are currently 3 meanings attached to the concept CBR:

- CBR as people taking care of themselves: Services for PWDs in most developing countries are still limited to what people can do for themselves. This implies that all the activities that PWDs, members of their family and other members of the immediate community can do in their own community for PWDs such as general care, mutual adaptation (i.e. family members adapting themselves to the situation of the disabled, and vice-versa), education and health, using whatever they know, whatever they have, in whatever daily circumstances they have to do.

- CBR as a Concept and an Ideology: CBR as a concept and an ideology promotes a decentralized approach to rehabilitation service-delivery, whereby it is assumed that community members are willing and able to mobilize local resources and to provide appropriate services to PWDs. This concept has been tried out in many CBR programs all over the world particularly amongst the developing nations, by the use of government staff and facilities, but has in most cases and in many respects proven to be unrealistic.

- CBR Programs, Projects and Organizations: Recognizing the human and material limitations of PWDs, members of their family and other members of the immediate community a CBR program intends to promote and facilitate CBR by visiting PWDs and their families in their houses, providing appropriate information, therapy and/or training, promoting and facilitating rights and duties of PWDs [2].

Whatever is the perspective of CBR one considers most suitable, the most broadly used definition of CBR is:

a strategy within general community development for rehabilitation, equalization of opportunities, and social inclusion of all people with disabilities by implementing through the combined efforts of people with disabilities themselves, their families and communities, and the appropriate health, education, vocational, and social services [6].

The emphasis in this definition is on community development, poverty reduction, equalization of opportunities and social integration are in keeping with the developing country context from which CBR emerged, but key aspects of CBR are also highly relevant to developed countries.

3. Characteristics and Objectives of CBR Programs

CBR is usually conducted or provided in natural community settings, such as clients' homes rather than formal service delivery settings (hospital or centre-based environments). The active engagement of clients, family and even community members in
service delivery is core to CBR. As a strategy, CBR seeks to equip, empower and educate people with disabilities and all stakeholders towards an end goal of greater independence, community participation and quality of life. The CBR approach typically seeks to maximize personal agency, accessibility to resources, and opportunities for participation, leading to the same physical, psychosocial and other outcomes as other disability service models. In CBR, skill transfer to the community and systemic change is essential. CBR programs are likely to be aimed at achieving broader social and systemic changes as well as maximizing social inclusion and improvements in individuals’ functional capacity.

The objectives of CBR are not only to maximize physical and mental ability but also to support access to regular services and opportunities, to assist people with disabilities to actively contribute to their own communities, and to encourage community members to promote and respect human rights. The breadth of scope of CBR is consistent with the conceptual base of the International Classification of Functioning, Disability, and Health (ICF/DH) [7], which defines disability within a complex interaction of causal, contributing, and consequential factors. Indeed the emphasis in the ICF on personal and environmental factors as key barriers or facilitators to a person’s functioning, further reinforces the relevance of a community contextualized approach. In a similar way, CBR also represents a shift in focus from the individual’s disabling condition (at the acute care end of the healthcare spectrum) towards a more holistic focus on the person within their social and family context (at the community end of the spectrum).

Regardless of country context, CBR is typically oriented towards achieving optimal functioning, quality of life, and community integration. As would be expected, CBR does not typically address early impairment or disability in the acute stages of injury or illness, but assists people whose impairments and disabilities require long term rehabilitation and care. The exact nature of CBR services will depend on the needs of the particular client or client group within their context, the presence of disability supports, environmental resources including availability of generic services in the community (i.e., home care support, community nursing), the availability of skills and expertise, practical feasibility, and the availability of funding.

4. The Emergence of CBR

The conventional system for rehabilitation of PWDs began to emerge in the 19th century. At the beginning, there were institutions - mostly quite small - which were to take care of various groups of children or adults with special needs. They were given food and shelter, education and some vocational training. Many were kept in homes or centers for very long periods of time. The World War II of 1939-1944 resulted in a significant increase in the population of destitute and people with special needs of industrialized and developing nations. For many countries, providing these people with a rehabilitation services became a national priority [8]. Rehabilitation eventually came to include services for people afflicted by one or the other of a wide range of chronic diseases such as rheumatism, cardio-vascular, neurological, mental and skin; victims of accidents, alcoholics, drug abusers, and occasionally people released from prison. In response, systems of specific diagnostic and therapeutic resources were built up in the industrialized countries. By 1960s, it was observed that institutional approach of rehabilitation had only resulted in minimal service delivery in the capital cities, but was not reaching the vast numbers of persons with disabilities living in villages and slums.

In 1978, following a series of reviews and meetings, the World Health Organization (WHO) adopted the Alma Alta Declaration, shifting support from city-based hospitals and institutions to the community. The community-based rehabilitation (CBR) initiative eventually evolved [5]. WHO has been very effective in developing guidelines for CBR, conducting regional and national workshops to promote CBR guidelines, and supporting member states to initiate CBR programs and/or strengthen existing CBR programs. A 2004 joint International Labor Organization (ILO), United Nations Educational Scientific and Cultural Organization (UNESCO) and WHO paper defined CBR as a strategy within community development for the rehabilitation, equalization of opportunities and social inclusion of all people with disabilities [9]. This implies CBR is meant to enhance the quality of life for PWDs by improving service delivery, providing more equitable opportunities as well as promoting and protecting their human rights. CBR has the notion that:

- **If rehabilitation is to reach all those in need in the developing countries, there must be a large-scale transfer of knowledge about disabilities and skills in the rehabilitation of people with disabilities to their families and members of the community.**
- **For rehabilitation to be successful, communities must recognize and accept that people with disabilities have the same rights as other human beings. Rehabilitation therefore needs to aim at bringing about this required attitude change in communities. It has been found that this change in attitude is most effectively brought about when communities themselves take on the task of rehabilitating their members who have disabilities [5].**

It is regrettable to observe that, some member countries are yet to embrace the concept of CBR in rehabilitating their citizens with disabilities. In
Nigeria for instance, rehabilitation services are either institution-based, within the cities or suburban communities or form part of active outreach services to rural communities, supported by international agencies [5]. This is why Tinney in Olaogun, Nyante and Ajediran maintained that community-based rehabilitation services in any form are yet to take off in many developing countries. In Nigeria, the consequences of civil war, political upheavals and strife, incessant road accidents, ethno-religious crises, youth restiveness, religious extremism and other forms of security insurgencies in addition to poverty have also tremendously increased the incidence of disabilities in the country. There is, therefore, the need to explore a workable model for the rehabilitation of individuals with special needs in the community as a means of overcoming the limitations imposed by the handicap. Full participation of the individuals with disabilities has been part of the United Nation’s Standard Rules on the Equalization of Opportunities for Disabled People, which states under the Principles of Equal Rights that:

the needs of each and every individual are of equal importance, and that those needs must be made the basis for the planning of societies. In addition, all resources must be employed to ensure that every individual has equal opportunities for full participation [5].

Accordingly, the government of the Federal Republic of Nigeria (FRN, nd) in her National Policy on Rehabilitation of Persons with Disabilities accepted the principles of participation, integration and equalization of opportunities as specified by the United Nations in the World Program of Action concerning persons with special needs. The FRN further accepted in the policy the principles incorporated in the following declarations proclaiming the necessity of protecting the rights and assuring the welfare and rehabilitation of persons with disabilities; the Universal Declaration of Human Rights; the International Convention of Human Rights; the United Nations Development Decade for Women; the Declaration on the Rights of Mentally Retarded Persons; and the Declaration on Social Progress and Development (RFN, nd). Though, the FRN has come up with a national policy on rehabilitation of persons with disabilities but the policy is tilted to city-centered rehabilitation service delivery. This fact is even acknowledged in the policy in 2(2.3.4). It stated that “in Nigeria, services enjoyed by people with disabilities in urban areas are not readily available in most rural areas” (P,8). This means that the idea of CBR is far from being feasible in Nigeria.

5. The Challenges for CBR

The following are the major challenges for the development and implementation of CBR program in Nigeria, with the fast changing environment and the huge demand for services.

Strategy for CBR: In Nigeria, there are limited resources for welfare and development in general. Another disadvantage is that disability is not seen as a high priority issue. To establish a new system of working exclusively for CBR may be complicated and very expensive. CBR programs have not been very successful in developing supportive socio-cultural environments for people with disabilities, or in mobilizing community resources. Also, CBR programs have not done much in the area of responding to the needs of both people with disabilities as well as the community. The challenge for CBR is to implement a program that can cover and respond to the needs of people with disabilities as well as the community.

Human Resource Development: There are two problems with regard to human resources in CBR that need to be solved. One has to do with the need for personnel who have the understanding and skills in various aspects of CBR, while the other is the lack of adequate numbers of trained personnel in this field. CBR programs need personnel who possess the technical know-how to deal with rehabilitation and community behavior. Most CBR personnel such as physical therapists, occupational therapists, doctors or vocational trainers have primarily rehabilitation skills without community development skills. Since the educational background of most CBR personnel has to do with rehabilitation, the program tends to concentrate on rehabilitation interventions alone. With the vast population of Nigerians living in rural areas, the need for CBR services are huge. Since the number of personnel to work in CBR is very limited, there should be greater emphasis on human resource development in Nigeria.

Funding of CBR: Most donors for rehabilitation prefer a charitable approach which is more visible and easy to evaluate. Donors are more satisfied with pictorial reports and the number of persons with disabilities who have received rehabilitation services. But it is not so easy to evaluate a CBR project that is involved in community development. However, community oriented programs are more effective because they work not only for PWDs, but also develop the communities where they live and their families. CBR involves change in the community's behavior, motivation, knowledge and skills in relation to disability issues. This change, which is crucial for CBR, is difficult to see or evaluate. For a funding agency that is not used to supporting development programs, this is difficult to understand. In order to change the attitudes of donors, there should be regular communication.
between the donors and the implementers about CBR concepts and strategies, in order to convince the donors that CBR is a development program and not a charity effort.

Information Dissemination in CBR: There is an urgent need for information dissemination so that all countries can access information about developments in the CBR field. Every country will be required to make some effort to share its information. On the other hand, there is the wide availability of sophisticated information technology tools such as the Internet. The challenge for CBR practitioners is to make full use of the high-tech that occasioned as a result of the information and communication technology for further development of CBR in the country.

Lack of Legislative Framework: At the moment there are no laws guiding the operations of CBR in Nigeria. The National Policy on Rehabilitation of Persons with Disabilities which is a document of the FRN is only policy statements on institutional rehabilitation program. So the absence of laws to dictate minimum standards for CBR development and implementation has hampered the growth of CBR delivery.

6. The Roles of the Family in CBR Development

The family as an important agent in the socialization process and the overall development of the child plays the following critical roles in CBR development as follows according to Bwana and Kyohere [1]:

Overcoming ignorance: CBR has a major role to play in the education of the community about disability. Ignorance is a big obstacle; many people with disabilities are in their present situation because they did not know what to do at the outset of disability. Community members need to know how to prevent disabilities. They need to know how to care for, respect and communicate appropriately with PWDs. The family can make a major contribution towards sensitising members of the immediate community by sharing experiences. They can also facilitate referrals to medical and social services. Their contribution in these areas can strengthen these aspects of a CBR programme considerably.

Promoting sustainability: The sustainability of an individual’s independence relies heavily upon setting up the structures and support, which will enable him/her to acquire daily living skills and provide the opportunity for education and employment. Families can facilitate this process by finding ways of sustaining individual PWD and making relevant connections between PWDs and prospective educational opportunities and employers.

Promoting the validity and relevance of CBR activities: Essentially, PWDs and their families are the customers and consumers of CBR programs and one of the objectives of any organisation is to satisfy its customers. In order to do this, the customers need to be involved in the identification of what is required and how it can be best achieved. In practice, this means that PWDs and their families need to be involved from the very beginning in any initiative so that their perspectives, wants, hopes, needs, fears and deep seated knowledge of the barriers, can form the design of an initiative, from the very beginning.

Promoting education: Families have a very powerful role to play in the promotion of the inclusion of PWDs within inclusive educational settings, as well as working towards the development of special provisions that children, both, within inclusive settings and in special settings require. The role of the family here is again one of raising awareness and providing the drive and inspiration needed, to initiate and sustain programs with a lifetime of interest and commitment.

7. Recommendations

It is the contention of the researchers to recommend that:

- There should be opportunities for awareness raising and discussion of social inclusion issues for the family.
- There should be regular training and updates for family members on rehabilitation of PWDs
- The family should ensure that PWDs get the opportunity to meet others in the same socio-cultural environment
- There is the urgent need for training on man-power for the purpose of CBR implementation.
- There should be specific social skills for family members, including analysis and discussions of CBR.

8. Conclusion

The family plays vital roles in the implementation of CBR for active participation of PWDs in the socio-economic affairs of the society. People generally react according to what disability means to them and just how much it is going to affect or change their life styles. There is therefore the need not only to change the mindset of PWDS through rehabilitation in neighborhoods.

10. References


Many thanks for your participation and we hope to see you next year...!

World Congress On Special Needs Education (WCSNE-2015)
www.wcsne.org

August 10-13, 2015
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Have a great trip back home....!!!