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BE READING ALWAYS: WHAT HIGH PERFORMING NIGERIAN STUDENTS SAY ABOUT HOW THEY PREPARE FOR EXAMS: A QUALITATIVE STUDY

Dr. Bernedette U. Cornelius-Ukpepi *
Dr. Rita A. Ndifon **

Abstract

In Nigeria, including at University of Calabar, success or failure depends largely upon performance on end-of-course examinations. There are many incidences of examination failure. During the past seven years as examination officers, we have observed when preparing students' results that very few students actually qualify to graduate. In this qualitative research study, we make an effort to determine what learning habits and study practices are used by successful students. The study focuses on self-reported practices of sixteen high scoring students who passed well in the last general teaching method examination. Each of these students scored between 70% and 100%. Our analysis of written protocols suggests that these students are effective, conscious time managers, and they have developed highly specific study strategies, both in groups and as individuals. In addition to implications for students, we find in the data implications for lecturers, parents, and policy makers.

Keywords: *study skills, high performing students, qualitative research, higher education, examinations, etc.*

Introduction

In Nigeria, at University of Calabar (UNICAL), success or failure depends largely upon performance on end-of-course examinations. There are many incidences of examination failure. During the past seven years as examination officers, we have observed when preparing students' results that very few students actually qualify to graduate. In this qualitative research study, we make an effort to determine what learning habits and study practices are used by successful students. The study focuses on self-reported practices of sixteen high scoring students who passed well in the 2010/2011sesssion General Teaching Methods examination. Four hundred and three students took this exam. Only 56%

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were successful. Of these, 35 students (9%) scored between 70% and 100%. These 35 students constituted the population for our study. Sixteen of these, almost 50%, became our research participants. Our analysis of their written protocols suggests that these students are effective, conscious time managers who have developed highly specific study strategies, both in groups and as individuals.

Method

The instrument used to gather data consisted of four questions. Students were given 10 minutes to respond to each question. The questions were presented to participants one at a time:

1. Tell me the story of how you prepared for examinations.
2. Did anyone give you good advice about how to prepare?
3. What advice would you give to someone preparing for exams?
4. What is your favorite study strategy?

Data Analysis

Written responses were coded for patterns and subjected to thematic analysis. As a first step, colored pencils were used to track patterns in the students' responses. Patterns were then clustered into themes, and themes were arranged on a timeline that emerged from the data.

It is interesting to note that these high scoring students start by planning at the beginning of the semester, well ahead of time. They move quickly into attending classes right from day one and begin reading. (This is not always the case with Nigerian students.) Then, they start planning for the examination by developing a personal timetable to guide them, after which they begin to read individually, employing different strategies. Later in the term, they will also participate in group reading. Finally they enter into exams.

Locus of control

This research work, in which successful students clearly believe in their own power to shape the outcome of examination, is supportive of work by Landis, Altman and Cavin (2007) who conducted a study on underpinnings of academic success. The authors assert that "an internal locus of control is characteristic of effortful students who are more likely to perform better academically." They add, "When students believe the reward will come from internal sources…, they are more likely to do what is necessary to perform well (e.g. attend class)."

Similarly, when Mkumbo and Amani (2012) carried out a study with 260 undergraduates to determine their attribution of their academic success or failure, they found that high performing students were more likely to attribute their academic performance to internal and controllable factors than were lower performing students. Likewise, Boruchovitch (2004) studying how students attribute their academic performance in mathematics, found that those who performed well attributed their success to internal factors such as being calm and working hard, although there was also some attribution of success to external factors such as having an easy examination.

Time Management

In accordance with the concept of "effortful students" (Landis, Altman & Cavin, 2007) seven of the 16 students reveal that timing of every activity, as early as the very beginning of the semester, is important. One student writes,

Preparation for an examination starts from the onset or beginning of the semester with first class attended; then and there, you find the lecture interesting and prepare your reading time table.

Another echoes that perspective closely:

I try my best to resume on time, do my registrations, pay my fees. All these will help me settle down well and start preparing for my academics.

Still others speak of " resuming school early so as not to miss any class," "acquiring the necessary or prescribed text books or handouts," and "identifying the course of study, the course contents and then organizing the course reading (study) materials."

Most students articulate specifically that early planning aids success, and their statements reveal the significance of also planning later, at the beginning of the examination period. One explains the process of getting organized:

During the preparation of my examination, the first thing I do is to get my course outline and read through the outline. I pick out the important topics that the lecturer discussed in class, copy my exams time table and make a time table for myself.

A majority of the students indicate that having a personal time table is very important for managing study time. One student describes this as a "planned time table on how and when to study; it involves time allocation, interest and dedication." Another explains,

During the preparation of my exams,… I make a time table for myself which I paste on my wall close to my bed. My bed is the most special place to me in the entire house so I paste my time table beside it for easy access.

Planning shows up as a theme not only in how students report their own practices but also in the advice they have received from friends and family. For example, one student was advised that "early preparation is an essential ingredient for passing exams; the first day for preparation is the day you are given your course work." This student adds that she was advised to "buy the necessary school materials and pay school fees and other charges on time, never to be distracted by the school authority." We are inferring that students have accepted advice given about time management.

Gerstein (1998) maintains that good studiers are able to shield their studying from competing behaviours or distractions and maintain high levels of engagement. Avoiding distractions during reading was a consistent theme among the students of this study, and for some, time management extended through a 24-hour cycle, as students shaped their reading time. Several respondents spoke of reading during the night or in the early morning hours.

- When it is a night to my examination, I sleep and wake up at 5am to do some revision before going for the examination (this is to help me freshen my memory of what I have already read).
- I wake up at night when everyone is asleep and read my books precisely around 4am and stop by 6am to carry out my house chores. I spend every two hours at night to study my books…. If I read in a noisy environment, I hardly understand, so I try to avoid such places….
- A night to my exams I try to read throughout the night and some hours before I start the exams. If I read and it is as if I am forgetting what I have read, I close my books and just rest my head for some time, so that in trying to add more I don't forget the ones I have read.

Class Attendance

Twelve of the sixteen students indicate the importance of class attendance. This is highly relevant within the context of a culture of low attendance.

- I prepare for my examination by attending lectures, not assuming that I already know the course, no matter how familiar I am with the course.
- I make sure I am always in the class to listen and make notes.
- I ensure that I attend all my classes.

Although some respondents speak of attending "all classes," others set percentage goals for attendance:

- I must attend seventy percent of all the lectures in my course.
- Attend classes regularly, at least 75% in a given semester.

In some cultures, 75% attendance might seem low. At UNICAL, a class with 400 students registered may see only 100 coming regularly for class, but 400 will show up for exams. Then, the failure rate is high. The data of this study confirm a correlation between class attendance and exam success.

One student notes that some lecturers motivate attendance more than others:

- I usually make better grades when I like my lecturer because I always want to attend his or her class without missing a single day.

Some students talk about not only *being* in class but *how* to be in class, what to do there. For example:

- I prepare for my examination by asking questions in the class because I will ask a question I think it will be difficult for me to answer.
- I partake in the class continuous assessment.

Over half of the students wrote of the importance of taking down notes and how these notes become useful later.

- I make sure I listen to what my lecturer says and take notes.
- I try to reduce my notes into key points which I can easily remember.
- [I go] through my notes after lectures.
- I read [my] notes line by line consistently
- I will make notes from my textbook, read them and later compare them with the jottings I have been making in class.

As lecturers, we have observed that during class, some students take down notes

while we are teaching and others do not. Some ask questions for clarification, and others neither ask questions nor answer questions asked by the lecturer. Clearly, the successful students in this study believe that it is important to not simply be in class but to be in class actively.

Reading

In Nigerian university cultures, the term "reading" encompasses a wide range of activities conducted in a variety of places at a variety of times for varying purposes. The students in this study report reading textbooks, reading and re-reading notes, reading course outlines, reading internet sources, and reading past exam questions. Any form of study, whether individual or group, may be referred to as "reading."

Virtually all of the students in this study address in one way or another the importance of reading books and class notes *throughout the term*, implying time management at every point. Several are explicit in stating that reading should not be postponed until the exam period.

- I make sure I start reading my books early enough at the beginning of each semester.
- It is wise to study or read in advance before the week or day before examination. It is very unwise as a student not to study or read your book until the night or day before exams.
- I read and prepare for my examination a month before it comes up, and a week to my exams I do my revision.
- After each lecture I always go for my personal research and read everything that I have been taught by the lecturer….

As the exam period approaches, students indicate a need for specific strategies for preparation. Many of them speak of revision (review):

- You must revise all the contents in question as well as anticipating the questions you are prepared for.
- I do my revision, and keep glancing through my notebook and textbook.
- When the examination timetable is out, I read my textbook and notebook especially. This would be more of a revision.
- To understand and comprehend a particular concept requires that the individual learner spend much time going through his study materials over and over again. This will help to promote good retention and recall during examination. This means that, the concept read must be put in the queue (arranged in the memory) before entering examination.

Gertinger and Selbert (2002) maintain that the most basic study strategies involve repetition, re-reading or rehearsal. This perspective is reflected in the students' emphasis on revision/review and on going through materials "over and over again."

Some students advise to "develop quality time to [your] books," and "never play with your study hours or period." One writes, "Imbibe reading culture and ensure that 90% of what you have read and revised are conversant with you."

Study Strategies

Students report strategies including note making, question setting, acronyms,

consultation of past questions, and group reading. Approaches to note making vary. For example:

- I summarize every textbook connecting to the subject into my own level of understanding.
- I note down points while reading. I break down the topic to small logical forms.
- I bring out a sheet of paper for each of my courses, rule a line in the middle, jot down the important points after which I will read it over and over for retention…..

Three students mentioned setting practice questions for themselves in anticipation of the examinations:

- During examination period, I read and set questions for myself.
- I always….frame questions for myself to answer after reading.
- I set questions for [myself] relating to the subject [I am] preparing for.

Acronyms were an important strategy for two students:

- I use acronyms to reduce the work load and I make sure I memorize the acronyms to the best of my ability and it becomes my stream of knowledge and remembering.
- If there are series of points under a particular topic, I use acronyms to arrange them in order not to forget.

Over a third of the respondents indicate that consultation of past exam questions was a significant part of their approach to preparation for exams. For example:

- I get past question papers from my seniors to enable me to know the pattern of questions to expect.
- I will pick past question papers, try to answer them and correct myself after answering them.
- I ask for past question papers….to enable me to know how the questions may look….
- It is advisable to go through past question papers…in order to know the lecturer's pattern of setting questions.

Half of the high scoring students in this study made clear that group reading and group study were important elements of their success. For example:

- One of the things that has made me pass my examination is group reading…studying together and sharing of ideas helps a lot. This is because most students find it difficult to understand lecturers in class but learn faster while studying among themselves.
- I try to involve myself in group discussions with other students including my immediate senior colleagues.
- The ability to interact can make the students group themselves and bring out each other's ideas and work on them.

According to Gertinger and Selbert (2002) studying is purposeful and requires a deliberate and conscious effort on the part of the student. It is highly personal, individualized, and involves a self regulatory dimension. These students' self reports confirm this perspective.

During examination

Two students indicate the significance of avoiding noise and distraction during the actual examination period.

- During exams I sit quietly at a convenient desk, noise free with ventilation.
- After preparation, at exam venue I make sure I am not disturbed by noise and gist from friends

One student writes,

I make sure I finish before the allotted time to go through my works to correct my errors and in that process, another question becomes a clue to the one I regarded most difficult…. since some questions had some rudiment of answers to the other question. I read questions strictly and compare where necessary.

Another student offers the opinion that visualizing the lecturer can be useful:

Another way I try to know the lecturer's area of interest is by "seeing them in my mind including all the illustrations, repetition and example especially where the lecturer had used the phrase "take note."

This has implications for lecturers, for it shows that teaching with illustrations, demonstrations and examples may help some students to remember what they have been taught.

A number of students indicate that their memorized acronyms help them to recall easily in exams. Several advise approaching examination " with calmness and confidence"; staying "focused and fully concentrating while in the examination hall;" "working within the time specified so that performance will be enhanced and avoiding problems in the examination hall." "Don't depend on your friend or someone you think is more knowledgeable than you in the examination."

Advice for the actual writing of exam essays includes "quoting an author, " "relating activities to the society," carefully "proofreading work before handing in the paper," and being "mindful of grammar." In writing, "Be original and natural." One student advises, "In answering of questions, start with the simple ones before going on to answer the complex ones." Still another suggests "listing before explaining."

It is clear that from the first day of class through the time of the examination itself, these high-scoring students are focused and mindful of specific strategies that they find useful. That they are able to articulate these strategies suggests a high level of consciousness and deliberateness about what they are doing. Smith (2003) asserts that for a student to be successful he/she must direct his/her energy towards activities that will enhance their chances for success. The students in this study do exactly that.

Autonomous learning

According to Rohawer (1984) studying is the principal means of self educating throughout life. Holec (1991) has defined autonomy as the ability of the learner to take charge of his/her learning. Autonomous learners must want to learn and must develop metacognitive capacity which allows them to handle change, negotiate with others, and make strategic use of the learning environment (Breen and Mann 1997). The statements of the sixteen high scoring students in our sample are consistent with these assertions. These students clearly do take charge of their learning. They know themselves as learners, engage in metacognitive activity about their learning

processes, and consciously develop strategies that work for them both individually and in groups. They are strategic time managers from the beginning of the semester through final exams.

Implications for lecturers

This study clearly has implications for students but it also has implications for lecturers, for parents, and for policy makers. Lecturers, for example can advise students of the following strategies, each of which has been part of the success of students who have gone before them:

1. Preparing for exams right from the beginning of the semester by getting all the required reading materials.
2. Attending all the classes, taking down notes, participating actively in class and asking questions where necessary.
3. Reading and revising notes and textbooks, making notes, developing acronyms.
4. Developing a personal time table and making use of it.
5. Forming reading groups to exchange ideas with classmates and senior students.
6. Avoiding noise and distractions while reading
7. Finishing exams early so as to go through to correct errors.
8. Making use of past exams question papers.
9. Browsing the internet for more information.

Lecturers might also consider teaching using a variety of illustrations, demonstrations and examples to enable students to remember what they have been taught. This may help some students to recall exactly what the lecturer said and did in class while teaching. Two students made mention of demonstrations and illustrations, of "seeing the lecturer in their mind's eyes." We feel that it is something lecturers may think about.

Instructors may also consider being more open to students and allowing them to ask questions on issues that are not clear to them. For instance, one student said,

I always build up courage… to meet with the lecturer. Some students have the fear of meeting with the lecturer one to one which can reduce their understanding.

As lecturers, we have often observed that during lecture, students loiter along the corridors of lecture halls. This causes noise and distractions to students who may want to listen or read in those lecture halls. This study reveals that for some students, noise and distractions are detours away from examination success. Consequently, if there are things instructors can do to reduce noise and distractions it may be advisable to do so.

Implications for Parents

Parents may take note of the fact that these successful students indicate having received a great deal of good advice from family members and friends. For example:

- The best advice I got…was that of my parents… their advice was that I should be reading always. They told me that I have two jobs… to eat very well… to read and pass my examination.
- My dad always tells us, if you are doing something, do it as if that is the last thing you have to do. He said that for now, our academics is our priority….

· My dad always told me that to prepare for an examination, I must not wait for the exam or time table to come out before I do my reading…

- The acronyms method was an opening of my knowledge through the advice of my senior brother….
- …my elder brother, he told me to study hard rather than sorting.

Implications for policy makers

In Nigeria, the National Policy on Education (2004) places high value on development of autonomous learning. In the statement of national goals, we find that "the education system shall be structured to develop the practice of self-learning." As policy makers go about the process of describing and developing such structures, they may benefit from knowing how at least some Nigerian self-directed learners function.

Advice from Students to Students

The students in this study were asked what advice they would offer to someone about to prepare for examination. The advice they give corresponds with the patterns and themes that emerged from their responses to the first and second questions. All of the students have given advice based on the way they themselves prepare for examination. Their advice ranges from reading individually to group reading and includes attending lectures regularly and taking down notes, forming notes from texts and other sources, and avoiding distractions. They advise others to read, read, read, visit the library, browse the internet for more information; "make your books your best friends."

Based on frequency analysis, we have put together a list of the students' Top Ten Tips for Successful Exam Preparation.

1. Manage your time carefully.
2. Read intensively and cover the full scope of the course.
3. Construct a well planned timetable to guide your study.
4. Attend lectures regularly, do all assignments, and take part in continuous assessment.
5. Study your course outline.
6. Set practice questions to test yourself.
7. Make use of past exam questions to test your level of understanding.
8. Form reading groups to share ideas and information.
9. Avoid distractions.
10. Take care of yourself physically, emotionally and spiritually.

These "Top Ten" align well with and lend credence to Cornelius-Ukpepi's (2010) similar advice for examination success. Cornelius-Ukpepi and Gertinger and Selbert (2002) agree that good students see themselves as able to control their academic performance and therefore are motivated to devote effort and attention to studying. In the process, they use and develop tools that enable success.

Sociological, Pedagogical & Psychological Dimensions of Exam Preparation

Long (1989) has posited three dimensions of self-directed learning: sociological, pedagogical and psychological. These three dimensions are reflected in the outcomes of this study. In the sociological

dimension, students are finding ways to connect, consult, share, and participate in "group reading" and "group study." In the pedagogical domain, they report specific strategies including the construction of timetables, use of mnemonic devices, note taking, setting questions, and reviewing past questions. In the psychological domain, they point to states of mind, attitudes, levels of confidence and self care-taking. For example,

- Always develop confidence and trust for your ability.
- Always approach examination with calmness and confidence.
- As a student you have to get an open mind set and clear your head over every other thought….
- Meditate and sleep, in order to ensure that what [you] have read will record well.

A number of students specifically counsel development of self knowledge, including knowledge of one's own learning style. For example, one suggests that different people may read better at different times: "He should not read because others are reading; he should know when his system is cool and the time he reads and understands better." Another student says, "I came to know myself as someone that understands or grabs what I read when the sun is down, so I study at the time I grab the most." Still another echoes, "One needs to first of all realize his world of study." Generally, the observations and statements of these successful students suggest high levels of self awareness and self knowledge.

Suggestions for further research

Additional research into the practices of students preparing for examination may be useful in constructing a fuller picture of successful examination preparation. Future researchers may want to investigate the practices of low scoring and failing students, as well, in order to determine if there are significant differences in how high and low performing students prepare.

Researchers might conduct interviews or focus groups with high scoring students in order to elicit greater detail about individualized study habits and how students have developed these habits.

It might be worthwhile to provide a workshop for students in which not only lecturers but also previously high scoring students assist younger students with developing study strategies; in addition to being asked for immediate feedback regarding these workshops, participants might then be followed in order to determine if such instruction has had any effect.

Nigeria is a nation in development. The future of our nation depends upon the learning and the work habits of our young adults. It is their success that can assure the success of the nation. Any additional research into students' experiences of examination preparation that can lead us to deeper understanding of successful and unsuccessful practices and/or any research that instructs us on how we might assist students in developing more effective study habits will be of value as we seek successful outcomes for greater numbers of students.

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THE MAJOR SOCIAL NETWORKING SITES USED BY TEACHER TRAINEES

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Abstract

Technology is the main support for the students' learning, and the computers are the main technology support as a tool for effective learning and teaching process. The use of computer networks for educational activity at all levels has introduced new options to enhance and trance form teaching and learning opportunities and outcomes. Social media offer new ways for academics to use the internet to communicate and share information. It is a platform for interactions, conversations, searching, creating and sharing. Social media includes the ability and the facility to discuss, create, co-operate on, share and modify information in text, image, audio and video forms among users of social networking websites such as Face book, Twitter, Flickr, You Tube, LinkedIn, Pinterest, My Space and a host of other similar sites. Social Networking is very informative, entertaining and it also aware as about various situations or events which are going on in the society or in the world at large. The present study intends to find out the major Social Networking Sites used by Teacher Trainees of Kottayam District especially in the context of collaborative learning. The sample was 399. The study found that Majority of the teacher trainees were using Face book and Google+ for collaborative learning and other purposes such as chatting, video sharing photo sharing etc. Teacher trainees have knowledge about other sites such as YouTube, Twitter, LinkedIn, Flicker, classmate.com, MySpace, Net log, Hi5, Sound Cloud, My Heritage, Instagram, Pinterest, Flixster, Deviant ART, Foursquare, Vimeo, Yelp respectively. This study throws light on the fact that the social networking sites influence on collaborative learning in computer networks to some extent, not in the expected level.

Key words: *Technology, Social Networking Sites, Social Media, Collaborative Learning, Teacher Trainees, etc.*

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Introduction

Technology has revolutionized our society. The present education system is highly different what it was in the past, especially with regard to application of technology. There is a shift from Indian pen to the computer keyboard, from blackboard presentation to power point presentation, from paper-pen test to computer-based test, from interpersonal instruction to mediated instruction, from teacher-dependent learning to independent learning. Technology is the main support for the students learning development nowadays, and the computers are the main technology support as a tool for effective learning and teaching process. The greatest contribution of technological development is the invention and use of computers in various areas. There is a lot of scope to yield good results or outputs through the use of computers in the field of education. The use of computers in education improves the quality of education and brings about desirable changes-both qualitative and quantitative.

Need and Significance of the Study

The use of computer networks for educational activity at all levels – primary, secondary tertiary, adult, and distance education- has introduced new options to enhance and trance form teaching and learning opportunities and outcomes.

In collaborating learning, student share the responsibility among member of a group which work towards a common goal. A collaborating learning system concentrates on refining and integrating the learning and subject knowledge of the students with the help of partners. Collaborative learning represents a significant shift away from the typical teacher centered or lecture centered milieu in classrooms. In collaborative class rooms, the teaching/listening/note-taking process may note disappear entirely, but it lives alongside other activities that are based in student's discussion and active work with the course material. Teacher acts as a facilitator and a guide. This intellectual constructing meaning or creating something new is crucial to learning.

Since the late 1960s computer networks(electronic mail, bulletin board services and computer conferencing) have been adopted and adapted by educators to enhance the curriculum by expanding access to expertise and educational resources, to increase student interaction and peer collaboration both within and between classrooms, and for the delivery of credit and non- credit courses and programs. Computer networks enhance traditional forms of face-to-face and distance education and enable new and unprecedented educational interactions, creating the basis for a new paradigm; network learning.

Social media offer new ways for academics to use the internet to communicate and share information. The internet is the most helpful tool in education. It allows the students to chat, participate in forums, share their views and express thoughts. The most exciting aspect of internet is that it offers knowledge power. The conversation, collaboration, coherence, global reach, scalability and low-cost dimensions that social media offer can be a boon for meaningful effective and engaging education for all, provided they are used prudently.

Social media provides an effective platform for developing the power of reasoning and expression. Learners can share what they have designed and also interact with other learners who may further build on their creation, duly acknowledging the source. Social media also offers the possibility of better forms of assessment of deep understanding. The key point here is that social media offers all the three pillars of self motivation-autonomy (learners can independently take initiative), mastery (through multiple representations and multiple performances of understanding) and purpose (learners can apply their knowledge and skills to a cause that appeals to them) and can take learner from being extrinsically motivated to being intrinsically motivated to learn and perform. Social media includes the ability and the facility to discuss, create, co-operate on, share and modify information in text , image, audio and video forms among users of social networking websites such as Face book, Twitter, Flickr, You Tube, LinkedIn, Pinterest, My Space and a host of other similar sites. Social media is a platform for interactions, conversations, searching, creating and sharing.

Today, students of college can use the social media to their advantage in many different ways. They can use social networking sites to connect with people from their study or work group and interact with peers or teachers directly. By using the internet for academic purposes, students learn much more than they can in a classroom and their ability to access, analyze, retain and share information improve dramatically.

Social Networking has become one of the most important parts of our daily life as it enables us to communicate with a lot of people. Social Networking sites are created to assist in online networking. Their sites are generally communities created to support a common theme. Since the creation of social net working sites such as my space, Linkedin and Face book, individuals are given opportunities to meet new people and friends in their own and also in the other diverse communities across the world. By doing so, individual can become friends or fans of the profile, and will be updated on current events, specials and other essential information that the masses would like to share. In early days people cannot think about social net working because, in those days science was not so advanced, but due to advancement of technology over the period of time people has become very much accustomed to this particular method of socializing. It is also a platform where our creations thoughts are presented to a huge lot of masses. Social Networking is very informative, entertaining and it also aware as about various situations or events which are going on in the society or in the world at large. Social Networking facilitates us to also enhance our viewpoints as enables us certain interactive learning activities also. Thus to summaries social net working sites are the most important and unstrained parts of human lives in the modern times.

Statement of the Problem

The present study intends to find out the major Social Networking Sites used by Teacher Trainees of Kottayam District. The research problem selected by the investigator is entitled as, “Social Networking Sites used by Teacher Trainees.”

Operational Definitions of the Key Terms

Social Networking Sites

Social network is a site that is made up of individuals or organizations that are tied together or connected by one or more types of relationships or interests. Social networking websites have become increasing integrated into the way many people today act, think and relate to each other. Social net working has a multitude of implications for the field of education and these impact students, educators, administrators and parents alike. Social networking sites have created a new dimension where individual can develop increased levels of awareness. Interacting with these sites, students can become more globally knowledgeable. Eg: Face book, twitter, Google+, etc.

Teacher Trainees

In the present study, teacher trainees are the male and female students studying in secondary level teacher training institutions such as Mahatma Gandhi University College of Teacher Education (UCTEs), aided and unaided colleges of teacher education.

Kottayam District

Kottayam District is one of the among the fourteen revenue districts of Kerala state.

Objectives of the Study

1. To study the major Social Networking Sites used by Teacher Trainees.

Methodology of the Study

Methodology gives a detailed account of the methods adopted and the procedures followed by the investigator. It includes the research design of the study, variables, tools used and a detailed description of the various phases in the construction of tools. Methodology of the study is the totality of procedure followed by the investigator adopted descriptive survey method.

The sample is a representative proportion of the population. In the present study the population consisted of the entire teacher trainees of aided and unaided colleges of teacher education and UCTEs, from which the researcher wanted to generalize the result of the present study. In the present study the investigator selected 410 secondary level teacher trainees (B.Ed), from Aided, Unaided and UCTEs. The final sample was 399.

Tools for the Study

The following tools are prepared by Investigator.

1. An inventory for identifying different Social Networking used by teacher trainees, titled “Social Networking Sites Identification Inventory”.

Statistical Techniques used for Study

The study mainly followed descriptive analysis for effective conclusions. At the same time the inferential statistics also were used. The investigator mainly used the descriptive statistics such as, Mean, Percentages, Standard Deviation, Graphical Representation etc. for data analysis.

Data analysis and Interpretation

The investigator had formulated the first objectives as “To study the major Social Networking Sites used by Teacher Trainees”. For the present study the data

pertaining to the above objective were collected by administering the tool titled "Social Networking Sites Identification Inventory" constructed by the investigator. To analyze this objective, the investigator used descriptive statistics with respect to number and percentage. In addition to this, the knowledge of the Social Networking Sites, using the sites for Collaborative Learning and others purposes were also found out. The data is given in the table below.

Table 5.1

Descriptive analysis of Major Social Networking Sites (SNS) and their uses

Major Social Networking Sites (SNS)	Knowledge about SNS		Using the SNS for Collaborative Learning		Using SNS for other purposes	
	No	%	No	%	No	%
Face book	350	88	100	25	150	38
Google+	304	76	157	39.25	108	27
YouTube	296	74	115	28.75	110	27.5
Twitter	226	57	33	8.25	48	12
LinkedIn	51	12.8	22	5.5	11	2.8
Flicker	49	12.25	9	2.25	11	2.8
Classmate.com	39	9.75	13	3.25	7	1.8
MySpace	32	8	6	1.5	7	1.8
Net log	16	4	4	1	11	2.8
Hi5	12	3	3	.75	3	.75
Sound Cloud	8	2	5	1.25	1	.25
myHeritage	7	1.8	3	0.75	6	1.5
Instagram	7	1.8	3	0.75	3	0.75
Pinterest	7	1.8	5	1.25	3	0.75
Flixster	7	1.8	4	1	3	0.75
Deviant ART	3	0.75	3	0.75	4	1
Foursquare	3	0.75	4	1	5	1.25
Vimeo	2	0.5	1	0.25	5	1.25
Yelp	1	0.25	5	1.25	1	0.25
watsap	0	-	0	-	0	-

The major Social Networking Sites are; Face book, Google+, YouTube, Twitter LinkedIn, Flicker, Classmate.com, MySpace, Net log, Hi5, Sound Cloud, Instagram,

Pinterest, Flixster, Foursquare, Vimeo, Yelp, Watsap respectively.

With respect to the knowledge about Social Networking Sites, out of four hundred Teacher trainees, 350 (88%) Teacher Trainees having knowledge about face book and 304 (76%) Google+ .The teacher Trainees having knowledge about other Social Networking Sites such as 296 (74%) YouTube, 226 (57%) Twitter, 51(12.8%) LinkedIn, 49 (12.25%) Flicker, 39 (9.75%) classmate.com, 32 (8%) MySpace, 16 (4%) Net log, 12 (3%) Hi5, 8 (2%) Sound Cloud, 7 (1.8%) My Heritage, 7 (1.8%) Instagram, 7 (1.8%) Pinterest, 7 (1.8%) Flixster, 3 (.75%) Deviant ART, 3 (.75%) Foursquare, 2 (.5%) Vimeo, 1 (.25%) Yelp respectively. Teacher trainees have no knowledge about watsap.The investigator observed that most of the Teacher Trainees were using Face book and Google+. The less number teacher trainees used Social Networking Sites such as Foursquare, Vimeo and Yelp.

In using the Social Networking Sites, 100 (25%) and 157 (39.25%) Teacher trainees were using face book and Google+ for Collaborative Learning.115 (28.75%) YouTube, 33 (8.25%) Twitter, 22 (5.5%) LinkedIn, 9 (2.25%) Flicker, 13 (3.25%) Classmate.com, 6 (1.5%) MySpace 4 (1%), Netlog 3 (.75%) Hi5, 5 (1.25%) Soundcloud, 3 (.75%) MyHeritage, 3 (.75%) Instagram, 5 (1.25%) PinInterest, 4 (1%) Flixster, 3 (.75%) DeviantART, 4 (1%) Foursquare, 1 (.25%) Vimeo, 5 (1.25%) Yelp. The investigator observed that most of the Teacher trainees were using Face book and Google+ for Collaborative Learning.

The teacher trainees use different Social Networking Sites such as; Face book 150 (38%), Google+ 108 (27%) and YouTube 110 (27.5%) used Teacher trainees for other purpose. The teacher trainees were used these Social Networking Sites for other purpose such as 48 (12%) Twitter, 11 (2.8%) LinkedIn, 11 (2.8%) Flicker, 7 (1.8%) Classmate.com 7 (1.8%) MySpace 11 (2.8%) Net log 3 (0.75%) Hi5, 1 (0.25) Sound Cloud 6 (1.5%) My Heritage 3 (.75%) Instagram 3 (0.75%) Pinterest.3 (0.75%) Flixster 4 (1%) Deviant ART 5 (1.25%) Foursquare 5 (1.25%) Vimeo, 1 (0.25%), Yelp 1 (.25%) respectively.

More teacher trainees use Google+, YouTube and Face book for Collaborative Learning purposes. Most of the teacher trainees use Face book and YouTube and Google+ for other purposes. The least used Social Networking Sites by the teacher trainees are Vimeo, Yelp, Instagram and Watsap.

Discussions of the Results

The first objective of present study "to find out the major Social Networking Sites used by Teacher Trainees" revealed that the major Social Networking Sites are; Face book, Google+, YouTube, Twitter, LinkedIn, Flicker, Classmate.com, MySpace, Net log, Hi5, Sound Cloud, Instagram, Pinterest, Flixster, Foursquare, Vimeo, Yelp and Watsap.

With respect to the knowledge about Social Networking Sites, 350 (88%) Teacher Trainees having knowledge about face book and 304 (76%) Google+. In using the Social Networking Sites, out of 400 Teacher trainees, 100 (25%) and 157 (39.25%) Teacher trainees were using face book and Google+ for Collaborative Learning. In using

the Social Networking Sites, out of 400 teacher trainees Face book 150 (38%), Google+ 108 (27%) and YouTube 110 (27.5%) used Teacher trainees for other purpose.

Major Findings of the Study

The investigator has listed below the major findings based on the present study.

Identification of Social Networking Sites used by Teacher Trainees

- 350 (88%) Teacher Trainees having knowledge about face book and 304 having knowledge about (76%) Google+.
- Teacher trainees have no knowledge about watsap
- Most of the Teacher Trainees 350 (88%) and 304 (76%) were using Face book and Google+.
- The teacher trainees were least used Social Networking Sites by teacher trainees are Foursquare, Vimeo and Yelp.
- 100 (25%) teacher trainees and 157 (39%) teacher trainees were using face book and Google+ for Collaborative Learning.
- More teacher trainees are using Face book, Google+ and You Tube for other purposes.

Conclusions of the Study

- Majority of the teacher trainees were using Face book and Google+ for collaborative learning and other purposes such as chatting, video sharing photo sharing etc.
- Teacher trainees have knowledge about other sites such as YouTube, Twitter, LinkedIn, Flicker, classmate.com, MySpace, Net log, Hi5, Sound Cloud, My Heritage, Instagram, Pinterest, Flixster, Deviant ART, Foursquare, Vimeo, Yelp respectively.

Suggestions for Improving Educational Practices

The investigator has listed below a few educational implications emerged from the present study.

- The B.Ed curriculum must include social network based education which helps to improve the knowledge about the use of social networking sites for collaborative learning.
- Teacher trainees must use social networking sites for collaborative learning to clarify their academic doubts through ask an expert.
- Teacher trainees must take an advice to do project design from online mentors.
- Teacher trainees must clear their doubts related studies with the help of tutors through social networking sites.
- Teacher trainees should keep in touch with teacher trainees of various training colleges through social networking sites for educational purpose.
- Teacher trainees should share concepts with trainees of various training colleges through online structured group activities.
- Teacher trainees must refer to foreign libraries with the help of social networking sites.
- Teacher trainees should be given an opportunity to share concepts with their teacher educators through social networking sites.

Suggestions for Further Research

- The study can be extended to the state level taking sample from various districts.
- A study can be conducted to find out the influence of major Social Networking Sites on collaborative learning used in computer networks among students of different higher education institutions.
- A study can be conducted to find out the influence of social networking sites on collaborative learning used in Computer Networks with respect to the responses educationists, leaders and parents and IT professionals.
- A study can be conducted to find out the reasons for the difference between the influences of Social Networking Sites on collaborative learning used in computer networks among other professional based on socio-demographic variables.

Conclusion

The present study on the Social Networking Sites used by teacher trainees of Kottayam District, throws light on the fact that the social networking sites influence on collaborative learning in computer networks to some extent, not in the expected level. The investigator would feel gratified if the findings of the present study would lead to a better understanding of the importance of the educational and academic use of Social Networking Sites on collaborative learning used in computer networks among the future teachers and the present teaching community.

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A STUDY ON THE RELATIONSHIP BETWEEN SPIRITUAL INTELLIGENCE AND PERSONAL VALUES AMONG HIGHER SECONDARY SCHOOL STUDENTS

Jisha K V*

Abstract

This paper mainly discussed about the relationship between Spiritual intelligence and personal values among higher secondary school students. Spirituality is being put forward as intelligence because it seems to help humans function better. Research shows that spirituality is associated with superior health and wellbeing, life purpose and satisfaction. The study reveals that most of the students posses average Spiritual Intelligence and Personal Values.

Key words: *Spiritual intelligence, Spirituality, Personal Values, etc.*

Education is process which draws out the best in man with the aim of producing a well-balanced personality, culturally defined, emotionally stable, ethically sound, logically correct, mentally alert, intellectually competent, technically advanced, morally upright, physically strong, socially efficient, spiritually mature, vocationally self sufficient, and internally, liberal. This word shows the relation of education with life, character, idea and ideals.

Apart from the cognitive or skill development aspects-the learning to know and learning to do- education must enables us to live together and to be as it is already mentioned. This idea is very clear from the definition of education given by Redden. According to him "Education is the deliberate and systematic influence extended by the mature person upon the immature through instruction and discipline for the harmonious development of physical, intellectual, aesthetic, social and spiritual powers of the human being according to their essential hierarchy by and for the individual and social uses and directed towards the union of the educand with the creator as the final end". In the absence of these socio moral and spiritual aspects of education, we may produce the skilled monsters. To say the truth, today's man has lost touch with the essential, the subtle and the spiritual in the pursuit of what is physical and superficial.

Spirituality is being put forward as intelligence because it seems to help humans function better. Research shows that

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spirituality is associated with superior health and wellbeing, life purpose and satisfaction. Spiritual practices such as meditation can also help improve performance by increasing awareness and insight to expand the scenario of personal values. SQ also promotes the development of values. Throughout human history every known culture has had some set of values, although the specific values may differ from culture to culture.

Spiritual intelligence is about the growth of a human being. It is also about how we look at the resources available to us. Spiritual intelligence motivates people to balance their work schedules to spend time with the family or an executive with a high spiritual intelligence might look beyond profit margins and devote time for voluntary work with orphans. Spiritual intelligence also addresses the need to place one's life in a shared context of value. The need for value education among the parents, children and teachers is constantly increasing as we continue to witness increasing violent activities, behavioral disorder, lack of unity and chaos in the society. The main causes of moral degeneration are lack of respect for the sanctity of human life, break down of family relationship, lack of respect of authority, disregard for rules and regulations, crime and corruption. To solve all these type of problems it is necessary to know the Personal Values of our young generation and its relation to Spiritual Intelligence.

Need and Significance of the Study

The world at present is going through a critical phase. On the one hand wide spread explosion of knowledge and tremendous achievements in science and technology have marked the beginning of a new era, on the other hand, a lack of fellow feeling, progressive erosion of values and the resultant pollution of public life are affecting the minds of younger generation. People are alleged to have become increasingly materialistic. Here arises the necessary condition - spiritual and value development - of educands without which all other conditions, characteristics or criteria become superfluous, nay, dangerous.

The researcher here intends to specify the spiritual aspect of the education, to study about the relation of it with Personal values. Dana Zohar and Ian Marshall (2000) introduced a new dimension of human intelligence-Spiritual intelligence. They also refer to it as the soul's intelligence. It is defined as "the growth of human being by moving in life through a direction and purpose, being able to heal the resentment and by considering one self as an expression of higher reality".

The need for value education among the parents, children and teachers is constantly increasing as we continue to witness increasing violent activities, behavioral disorder, lack of unity and chaos in the society. The main causes of moral degeneration are lack of respect for the sanctify of human life, break down of family relationship, lack of respect of authority, disregard for rules and regulations, crime and corruption. To solve all these type of problems it is necessary to know the Personal values of our young generation and its relation to Spiritual intelligence.

A valueless society would always be dangerous in the development of human

aspects of life. Values are obtained in many different ways. The most common piece for building value is person's family. The family is responsible for teaching children, what is good? and what is wrong? As it is said that a child is what the reflection of the parents are. As a child starts to school, it is then the school helps some children to shape the values in them. Spirituality is being put forward as intelligence because it seems to help humans function better. Therefore the present study is relevant.

Spiritual intelligence can and must be part of the higher education curriculum. Students must also learn that when the application of knowledge is for exploitive and cruel purposes, it is a misuse of spiritual intelligence. This calls for the need to cultivate emotional and spiritual intelligence, morality and ethics alongside the cultivation of any other type of intelligence. The researches and studies show that our spiritual intelligence helps us to take control of our lives in our own hands in inhumane activities. With the help of spiritual intelligence we take responsibility for our own experience and act accordingly.

Personal values evolve from circumstances with the eternal world and can be change over time. They may be derived from those of particular groups or systems such as culture, religion and political parties. Personal value system is important to help every one in improving the value system that he/she holds and put them to use. Values serve as motivator of the behaviour, at both conscious and subconscious levels. That is, a person may act in ways what are driven by his or her values, even though that individual is not overtly thinking about these values. This association of values and behaviour should encompass all settings, such as work, relationships.

Objectives of the Study

- To find out the relationship between Spiritual Intelligence and personal values of higher secondary school students for the whole sample and relevant subsamples-Gender and Locale.

Hypothesis of the Study

- There exist a significant relationship between Spiritual Intelligence and Personal Values among the higher secondary school students for the whole sample and the relevant sub-sample such as

  a) Gender

  b) Locale

Methodology in Brief

In order to achieve the objectives of the study, the investigator selected the Descriptive survey Method. Because, descriptive research involves collection of data in order to test hypothesis or to answer questions concerning the current status of the subject of the study.

Tools used in the Study

The following tools were used for the present study.

1) Spiritual Intelligence scale

Description of tool

Spiritual intelligence consists of twelve components originally and is further manipulated by different psychologists and others. Here the investigator takes only five of them for the present study as they are

closely related to the day to day life of students, especially of teenagers. They are:

- Self Awareness:

It is the awareness of the mental dispositions of the student regarding his activities.

- Ability to face and use sufferings:
  It clearly states the attitude of the student towards pain and suffering.
- Ability to go against conventions:
  It is the attitude of the student towards changes and seeking own experiences.
- A capacity to cause as little harm as possible:

It is the component which shows the capacity of the student to be proactive.

- A quality of being inspired by faith and values:

This component signifies the attitude of the student towards faith and values in life.

2) Personal values inventory

Description of the tool

The investigator has gone through the theoretical aspects related to Personal Values in order to select sub variable, components and dimensions. Based on the theories, the investigator selected the sub variable and components.

- ***Religious Value***

This value is defined in terms of faith in God, attempt to understand him, fear of divine and wrath and acting according to the ethical codes prescribed in the religious books.

- ***Social Value***

This value is defined in terms of charity, kindness, love and sympathy for the people, efforts to serve God through the service of the mankind, sacrificing personal comforts and gains to relieve the needy and afflicted of their misery.

- ***Democratic Value***

This value is characterized by respect for individuality, absence of discrimination among persons on the bases of sex, language, religion, caste, color, race and family status, ensuring equal social, political and religious rights to all, impartiality and social justice and respect for the democratic institutions.

- ***Knowledge Value***

This value stands for love of knowledge of theoretical principles of any activity, and love of discovery of truth.

- ***Hedonistic Value***

Hedonistic value, as defined here, is the conception of the desirability of loving pleasure and avoiding pain.

Sample

Sample for the present study was selected by simple random sampling method. The investigator selected 300 students as sample from different higher secondary schools.

Statistical Techniques Used

The investigator used the following statistical techniques

- Arithmetic mean
- Standard deviation
- Karl Pearson's co-efficient of correlations
- Significance difference between correlations

Analysis and Discussion

In this section the investigator analyses the relation between Spiritual intelligence and Personal values for the total sample.

- Correlation between Spiritual intelligence and Personal values of higher secondary school students with respect to total sample.

Table 1

Data and result of correlation between Spiritual intelligence and Personal value with respect to the total sample.

Variables	N	df	r	Table value	Significance
Spiritual intelligence & Personal values	300	298	0.7	0.113	Significant

Interpretation of correlation

The obtained correlation between Spiritual intelligence and Personal values of higher secondary school students, for the total sample is 0.68 . The value is greater than the table value ,0.113 . Hence the obtained correlation is significant.

The relationship can be verbally being described as high correlation .As the obtained correlation is positive, we can expect a direct relationship between Spiritual Intelligence and Personal Values.

- Correlation between Spiritual intelligence and Personal values of higher secondary school students with respect to Gender.

Table 2

Data and result of correlation between Spiritual intelligence and Personal value with respect to Gender.

Variables	Boys		Girls		CR
	N1	r 1	N2	r 2	
Spiritual intelligence & Personal values.	145	0.68	155	0.59	1.285

Interpretation of correlation

The table 5.5.2 shows that the Critical Ratio 1.285,which is not significant since it is less than the table value 1.96 required for significance at 0.05 levels.

The obtained correlation is not significant at 0.05 level. Hence there is no relationship between the Spiritual Intelligence and Personal Values of Boys and Girls.

- Correlation between Spiritual intelligence and Personal values of higher secondary school students with respect to Locale.

Table 3

Data and result of correlation between Spiritual intelligence and Personal values with respect to Locale.

Variables	Rural		Urban		CR
	N1	r 1	N2	r 2	
Spiritual intelligence & Personal values	159	0.67	141	0.66	

Interpretation of correlation

The table 5.5.3 shows that the Critical Ratio 0.17,which is not significant since it is less than the table value 1.96 required for significance at 0.05 levels.

The obtained correlation is not significant at 0.05 level. Hence there is no relationship between the Spiritual Intelligence and Personal Values of Rural and Urban higher secondary school students.

The results of the correlation studies give the significant relationship between Spiritual Intelligence and Personal Values of higher secondary school students for the total sample.

Educational implications

The investigator has listed below a few educational implications based on the research findings:

- The teachers must help the students to involve in activities that would slowly increase in them the spirit of love, care, empathy and such human qualities.
- The curriculum includes the content and activities that help to the development of the Spiritual Intelligence and Personal Values in students.
- Group activities and team work which help children to develop self awareness (inner-life skills, relationships, art and reflection, nature, music and emotional expression, self-analysis but not paralysis, journal/diary and habitual responses, reflection upon dreams) should be encouraged.
- This study has an implication for the work of the teachers and counselors in the schools.
- The study revealed that girls have high spiritual intelligence than that of boys. Comparatively girls are more attuned with the components of spiritual intelligence. Teachers should include moral, ethical, spiritual and value based talks in between the class.
- Teachers should help the students to nourish the spiritual and religious practices.
- A compulsory paper of value education should be introduced and it may include our culture, religious, moral and constitutional values.
- Value oriented education should be arranged with the active involvement of parents and society.

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COGNITIVE STYLE OF SECONDARY SCHOOL TEACHERS OF MALAPPURAM DISTRICT

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Abstract

Cognitive styles refer to the level of organization which is more generator than specific structures fundamentals to perception, memory and judgment/ addresses the manner in which an individual will approach specific tasks and solve the problem. Cognitive styles are patterns of though and behavior it influences learning and problems solving techniques. It reflects the indiduavals personality and performance. This is a survey study conducted among secondary school teachers to understand their cognitive style. Normative survey is used. Selected dimension of cognitive style are dimensions such as Systematic style, Intuitive style, integrated style, undifferentiated style, Split style. Cognitive Style Inventory (CSI) is the tool used for the study. A total sample of 100 secondary school teachers is selected. Findings of the study indicate that 20% of the students are having better cognitive style, 65% medium and 15% low. There is significant difference between social science and English teachers in undifferentiated style and Systematic style. There is significant difference between secondary school teachers with UG and PG with integrated style and split style

Keywords: *Cognitive style, Systematic style, Intuitive style, Integrated style, Undifferentiated style, Split style, etc.*

Introduction

Cognitive styles refer to the level of organization which is more generator than specific structures fundamentals to perception, memory and judgment/ addresses the manner in which an individual will approach specific tasks and solve the problem. Cognitive styles are patterns of though and behavior it influences learning and problems solving techniques. It reflects the indiduavals personality and performance. These are always related to mental behaviors habitually applied by an individual to solve problem and cognitive styles is the way by which information is obtained stored and utilized. Cognitive styles like perception remembering problem solving concaving retrieving intelligence etc. Influence the behavior of teacher in teaching process. These are the factors which are responsible

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to mould not only teacher behavior but also student's behaviors, learning, thinking reasoning memory, character, and personality

Dimension of Cognitive Style

1. Systematic style

An individual identified as having a systematic style is one who rates high on the systematic scale and low on the intuitive scale. The systematic style is associated with logical, rational behaviour that uses a well-defined step-by-step approach to thinking, learning, and overall plan for problem solving.

2. Intuitive style

An individual who rates low on the systematic scale and high on the intuitive scale is described as having an intuitive style. Someone, whose style is intuitive, uses an unpredictable ordering of analytical steps when solving a problem, relies on experience patterns, and explores and abandons alternatives quickly.

3. Integrated style

A person with an integrated style rates high on both scales and is able to change styles quickly and easily. Such style changes seem to be unconscious and take place in a matter of seconds. In fact, integrated people are often referred to as problem seekers because they consistently attempt to identify potential problems as well as opportunities in order to find better ways of doing things.

4. Undifferentiated style

An individual rating low on both the systematic and the intuitive scale is described as having undifferentiated cognitive behavior. Such a person appears not to distinguish or differentiate between the two style extremes; i.e.; systematic and intuitive and, therefore, appears not to display a style. In fact, in a problem-solving or learning situation, he or she may exhibit receptivity to instructions or guidelines from outside sources. Undifferentiated individuals tend to be withdrawn, passive, and reflective and often look to others for problem-solving strategies.

5. Split style

An individual rating in the middle range on both the systematic and the intuitive scale is considered to have a split style involving fairly equal (average) degrees of systematic and intuitive specialization. However, people with a split style do not possess an integrated behavioral response; instead, they exhibit each separate dimension in completely different settings; using only one style at a time based on the nature of their tasks or their work groups. In other words, they consciously respond to problem-solving and learning situations by selecting appropriate style

Need for the study

Cognitive style is an aspect of overall personality and cognitive processes. It is a bridge between cognition or intelligence measures and personality measures (Grigorenko & Sternberg, 1997; Cheema & Ridding, 1991). Cognitive styles are constructs developed to describe perceptual traits of individuals, have their origins in studies of human cognition in the differential perspective (Lemes, 1988).A wide range of individual's difference exist at any age levels of student teachers. Each student perceives, think, remember and solve problem according to his or her own unique style. In this regard cognitive style is important.

Statement of the Problem

The study is stated as "cognitive style of secondary school teachers in Malappuram district"

Objectives

1. To find out the cognitive style of secondary school teachers in total and in dimensions such as
   a) Systematic style
   b) Intuitive style
   c) Integrated style
   d) Undifferentiated style
   e) Split style
2. To find out the difference if any in the cognitive style of the secondary school teachers in total and in the dimensions such as Systematic style, Intuitive style, Integrated style ,Undifferentiated style, Split style with respect to the following variables
   a) Gender
   b) Educational qualification
3. To find out the difference if any in the cognitive style between social science and English secondary school teachers in total and in the dimensions such as Systematic style, Intuitive style, Integrated style, Undifferentiated style, Split style

Methodology

Sample

The sample for the p[resent study was secondary school teachers in Malappuram district. Stratified random sampling was adopted

Tool for the study

For collection of data the investigator have been used Cognitive Style Inventory (CSI) constructed and standardized by Praveen Kumar Jha in 2001.

Statistical techniques used

- Percentage analysis
- T test

Delimitation of the study

1. The sample is restricted to 100 secondary school teachers of social science and English doing B, Ed
2. Only limited variables were taken for this study.
3. The study has laid focus cognitive styles in preferable manner as it do not concentrate on the nature of each and every style of the secondary school teachers.

Findings

Objective 1

Sl No	Dimensions	Low		Medium		High	
		No.	%	No	%	No	%
1	Total	15	15.00	65	65.00	20	20.00
2	Systematic style	14	14.00	86	86.00	0	0.00
3	Intuitive style	26	26.00	55	55.00	19	19.00
4	Integrated style	18	18.00	60	60.00	22	22.00
5	Undifferentiated style	12	12.00	83	83.00	5	5.00
6	Split style	15	15.00	85	85.00	0	0.00

It is inferred from the table that 20% of the students are having better cognitive style, 65% medium and 15% low.

Objective 2

Sl No	Dimension	Variables	Cate-gory	No	Mean	SD	t value	remarks
1	Total	Gender	Male	32	18.344	2.174	0.507	Not significant
			Female	68	18.522	2.396		
		Qualification	UG	52	18.096	2.733	1.915	Not significant
			PG	48	18.958	1.683		
2	Systematic style	Gender	Male	32	4.375	0.599	0.699	Not significant
			female	68	4.265	0.964		
		Qualification	UG	52	4.192	1.001	1.325	Not significant
			PG	48	4.417	0.672		
3	Intuitive style	Gender	Male	32	18.344	2.174	0.507	Not significant
			female	68	18.522	2.396		
		Qualification	UG	52	3.885	0.933	0.320	Not significant
			PG	48	3.833	0.656		
4	Integrated	Gender	Male	32	2.688	1.014	0.116	Not significant
			female	68	2.662	1.066		
		Qualification	UG	52	2.462	1.134	2.133	significant
			PG	48	2.896	0.895		
5	Undifferenti-ated style	Gender	Male	32	3.406	0.785	0.732	Not significant
			female	68	3.279	0.855		
		Qualification	UG	52	3.212	0.927	1.379	Not significant
			PG	48	3.438	0.704		
6	Split style	Gender	Male	32	4.125	0.927	1.840	Not significant
			female	68	4.471	0.757		
		Qualification	UG	52	3.476	0.732	2.368	significant
			PG	48	3.054	0.928		

From the above table it is clear that there is significant difference between secondary school teachers with UG and PG with integrated style and split style.

Objective 3

Sl No	Dimension	Cate-gory	Number	Mean	SD	t value	remarks
1	Total	Social science	50	18.860	2.720		
		English	50	18.160	1.793	1.519	Not significant
2	Systematic style	Social science	50	4.780	0.576		
		English	50	3.820	0.841	6.659	significant
3	Intuitive style	Social science	50	3.900	0.854		
		English	50	3.820	0.767	0.493	Not significant

4	Integrated style	Social science	50	2.740	1.163		
		English	50	2.600	0.917	0.669	Not significant
5	Undifferentiated	Social science	50	3.140	0.895		
	style	English	50	3.500	0.728	2.207	significant
6	Split style	Social science	50	4.300	0.877		
		English	50	4.420	0.777	0.724	Not significant

From the above table it is clear that there is significant difference between social science and English teachers in undifferentiated style and Systematic style.

Major findings

1. It is found that 20% of the students are having better cognitive style, 65% medium and 15% low.
2. There is significant difference between social science and English teachers in undifferentiated style and Systematic style.
3. There is significant difference between secondary school teachers with UG and PG with integrated style and split style

Educational implication

- Teachers should learn to recognize the difference in cognitive style oreientation,to build on students strengths and avoid telling stylistic differences lead to discriminating practices or personality clashes.
- Suitable service teaching courses should be given in teachers which will enable them to teach science according to cognitive style of their pupils
- It is possible by helping students to identify their own style of learning it may be possible to train them to capacities on their strength and develop the weaker parts of their learning style.

Suggestion for further research

- Similar study can be conducted with predominant one group of gender is encouraged.
- Similar study can be conducted taking into account other variables among secondary and primary school teachers.
- A variety of learning content presentation methods addressing learners 'different cognitive styles should be employed (i.e., visuals, video, audio, interactive exercises etc.) with well-guided instructions and scaffolding activities.
- Administration should supervise properly the needs of the children and performance of the teachers. They should take proper action to improve it if there is need to improve.
- The school and college should have guidance and counseling centre for the students to solve their psychological and social problems.
- The government should also improve the policies, schemes and interventions to improve the quality of education.
- Similar study can be analyzed by different statistical techniques for verifying the results.

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ATTITUDE TOWARDS LEARNING AMONG SECONDARY SCHOOL STUDENTS OF KOTTAYAM DISTRICT

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Abstract

This article is related to a survey conducted among the secondary school students of Kottayam districts. This study is conducted i) to find out the Attitude towards Learning of the secondary school students of Kottayam district and ii) to study the difference if any in the Attitude towards Learning among secondary school students with respect to a) gender, b) locale of the school and c) type of management of school. The sample selected for the study is 520 secondary school students randomly selected from the secondary schools of Kottayam district. The tool used for the data collection is 'Scale of Attitude towards learning' constructed and standardized by the investigators. The data were analysed by using the descriptive statistical technique Mean, Standard Deviation, frequency distribution and graphical representations and the inferential statistical technique, test of significance of difference between means for large independent sample. The findings of the study were 1) There exists significant difference in Attitude towards Learning between Male and Female secondary school students of Kottayam district. The female students have significant higher Attitude towards Learning than male students. 2) There exists significant difference in Attitude towards Learning between secondary school students from Urban and Rural areas. The students from rural school possess higher Attitude towards Learning than the students from urban schools. 3) There exists no significant difference in the Attitude towards Learning between the students from Government and Aided secondary schools of Kottayam district.

Key words: *Attitude towards Learning, Gender, Locality, Type of management, etc.*

Introduction

The term attitude relates to that which each person possess towards ideals, things, beliefs, education and even life. The understanding of attitude differs from layman to researcher, from student to teacher and from teacher to software professionals. Attitude of students focuses so much on the nature of their learning itself and on its outcomes or consequences.

The famous psychologist Jung (1921) defined attitude as "readiness of the psyche to act or react in a certain way". Psychologists define attitudes as a learned

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tendency to evaluate things in a certain way. It includes evaluations of people, issues, objects or events. Such evaluations are often positive or negative, but they can also be uncertain at times. Attitudes can also be explicit and implicit. Explicit attitudes are those that we are consciously aware of and that clearly influence our behaviours and beliefs. Implicit attitudes are unconscious, but still have an effect on our beliefs and behaviours.

Attitude is a hypothetical construct. Triandis (1971) defines attitude as an idea charged with emotion, which predisposes a class of actions to a particular class of social actions. He identified the three main components attached to attitudes –a cognitive component, an affective component and a behavioural component. However, it is difficult to separate out these three components, as they tend to interact and merge with one another.

Attitudes can have a powerful effect on behaviour. People behave in accordance with their attitudes. The aim of education is the overall development of individuals. For this development, positive Attitude towards Learning is essential. According to Doob (1947), learning can account for most of the attitudes we hold. Theories of classical conditioning, instrumental conditioning and social learning are mainly responsible for formation of attitude. Survey of Canadian Attitudes toward Learning (2008) also indicates the importance of attitudes in learning.

Children come to school ready and willing to learn. Attitude of the student determines the learning process. If a student possesses positive Attitude towards Learning, the rate of learning and involvement in learning activities will be higher. The higher level of learning rate and involvement in learning activities leads to higher academic achievement and better performance in school and classroom activities. Negative Attitudes toward Learning can create problems in a child's education. Parents can help turn their child's Attitude towards Learning into a positive dimension. Without the development of proper attitudes and skills towards learning, individuals will not be well prepared to acquire the new knowledge and skills necessary for successful adaptation to changing circumstances. So school should be well equipped to develop positive attitude among children.

A positive attitude leads to happiness and success and can change the whole life of the student. If he looks at the bright side of life, his whole life becomes filled with light. This light affects not only him and the way he looks at the world, but it also affects his whole environment and the people around him. If this attitude is strong enough, it becomes contagious. It's like radiating light around the student.

In view of the importance of favourable Attitude towards Learning, for the successful accomplishment of the learning task the investigator felt that research studies should be conducted to analyse the level of Attitude towards Learning among school students and to imply effective strategies to develop positive attitude among them. Hence the investigator decided to conduct the present study which is entitled "Attitude towards Learning Among Secondary School Students of Kottayam District."

Need and significance of the study

In school, teachers facilitate much of students' learning. However, learning is enhanced if students can manage the learning process themselves; moreover, once they leave school, people have to manage most of their own learning. To do this, they need positive Attitude towards Learning in order to establish goals, to persevere, to monitor their learning progress, to adjust their learning strategies as necessary and to overcome difficulties in learning. Students who leave school with positive attitude to set their own learning goals and with a sense that they can reach those goals are better equipped to learn throughout their lives. Then they get more respect and love from other people.

Students with favourable Attitude towards Learning are likely to be more motivated to manage their own learning and develop the requisite skills to become effective learners of all subjects. Hence, attitude is relevant when considering the development of effective learning strategies. Students who do not develop a positive Attitude towards Learning situations may lose important career and life opportunities.

The students spend the majority of their learning time in school. The climate of the school, as well as society and home is important for the development of effective Attitude towards Learning. The school, home and society plays a major role in developing positive Attitude towards Learning. Parents must be careful for helping children to acquire positive Attitude towards Learning. The society helps students for developing positive Attitude towards Learning by giving proper motivation. In short the school, home and society should provide motivation to students for developing positive Attitude towards Learning.

The basic aim of education or learning is to help each individual to progress towards the attainment of his full potential both as a person and as a member of the society. Learning is a social necessity. Attitude towards Learning is one of the major force behind the development of the students. A positive Attitude towards Learning helps the students for a better academic achievement. This attitude also leads to improve the quality of their life. The knowledge of student's Attitude towards Learning is very helpful to teachers, school authorities and parents in order to help students develop a positive Attitude towards Learning by proper training in school and home.

Purpose of the study

The purpose of the study was to find out the Attitude towards Learning of secondary schools students of Kottayam district. The study also aims to find the difference if any in Attitude towards Learning of the secondary school students with respect to gender, locale of the school and type of management of the school.

Objectives of the study

1) To analyze the scores on Attitude towards Learning among Secondary School Students of Kottayam district.
2) To find the difference if any in the means of scores on Attitude towards Learning among the secondary school students of Kottayam district with respect to
   a) Gender
   b) Locale of the school
   c) Type of management of the school

Hypothesis of the study

1. There is significant difference between the means of scores on Attitude towards Learning among the Secondary School Students of Kottayam district with respect to gender.
2. There is significant difference between the means of scores on Attitude towards Learning among the Secondary School Students of Kottayam district with respect to locale of the school.
3. There is significant difference between the means of scores on Attitude towards Learning among the Secondary School Students of Kottayam district with respect to type of management of the school.

Methodology of the study

The method adopted for the study was descriptive survey method. The population of the study included all the students studying at secondary schools of Kottayam district. The sample includes 520 nineth standard students selected from ten secondary schools using random sampling method. Primary data were collected using a standardized self constructed tool, 'Scale of Attitude Towards Learning' (SATL).

The investigators selected dimensions of the attitude scale by referring past studies, articles in the research journals and website publication. The situations in which Attitude towards Learning exhibited are considered as the dimensions of the scale. These dimensions are home learning, school learning and society learning. The sub components of the selected dimensions of Attitude towards Learning have the following. 1) Home learning: it has two components- student initiated and parents provided. 2) School learning: it has four components- i) school, ii) teacher, iii) learning process and iv) learning methods. 3) Society learning. Altogether there are seven components. The SATL contains seven items for each component (total of forty nine statements). It is a 5-point scale. Thus the total scores on each component range from 1 to 35. A simple summation of the scores of the subject on each item would indicate the scores on that dimensions. For measuring the Attitude towards Learning seven items of the total scores on all the three components were used. There are questions with positive and negative polarities in SATL. The reliability of this scale is calculated and is 0.845. The validity of the tool is established by ascertain the quality of the item based on expert opinion.

The statistical technique used in the study includes

1) The descriptive statistics -Mean, Standard Deviation, Frequency distribution and graphical representations
2) The inferential statistics, test of significance of difference between means for independent sample

Analysis and Findings

Analysis of Objective one: The distribution of the scores on Attitude towards Learning among Secondary School Students of Kottayam district.

The investigator employed descriptive statistics to analyse the data and calculated the Mean (M), and Standard deviation (SD) of the scores on Attitude towards Learning among the students of standard IX of secondary schools of Kottayam district. In order to compute these descriptives, the investigators subjected the data to SPSS (Statistical Package

for Social Science version 20.00). The frequency distribution of the scores on Attitude towards Learning is given in the table 1.

Table 1

Frequency distribution of the scores on Attitude towards Learning

Class interval	Frequency	Percent
60-100	7	1.3
100-140	13	2.5
140-160	47	9.0
160-180	120	23.1
180-200	170	32.7
200-220	126	24.2
220-240	37	7.1
Total	520	100.0

The maximum and minimum attainable scores on the SATL are 60 and 240 respectively. The 520 frequencies are distributed throughout this range. The highest frequency is 170, which falls in the class 180-200. In the adjacent classes 200-220 and 160-180, also the frequencies are quite high (126 and 120 respectively) compared to other classes. Figure 1 represents the graphical representation of the frequency distribution.

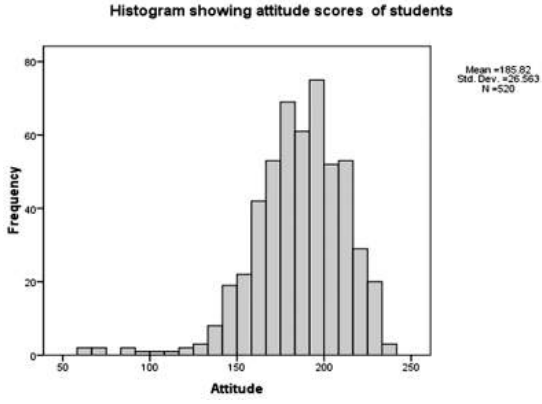

Figure 1: The histogram showing the scores of Attitude towards Learning of students

Table 2 furnishes the details of descriptive analysis of the scores on Attitude towards Learning of secondary school students.

Table 2

The number (N), mean (M) and standard deviation (SD) of the scores on Attitude towards Learning

Variable	N	Mean	SD
Attitude Towards Learning	520	185.82	26.563

From the above table 2, the investigators observe that the mean value of the scores on Attitude towards Learning is 185.82. The standard deviation of the Attitude towards Learning is 26.563.

The Difference in the Means of Scores on Attitude towards Learning among Male and Female students

In order to find out the difference in the means of scores on Attitude towards Learning of the male and female secondary school students, the investigators analysed and interpreted the data using the inferential statistics, namely the two tailed test of significance of difference between large independent samples. The investigator formulated a null hypothesis H01 for the analysis of this objective.

$H_0$1: There exists no significant difference in the means of scores on Attitude towards Learning between male and female students of higher secondary schools.

The data has been analysed with the help of SPSS and the result is presented in the table 3. In order to test this hypothesis

the investigators used SPSS (version 20.00). For this the investigators fixed the level of significance (p value) as .05. If the p value exceeds .05, then the null hypothesis is accepted. The details of analysis are given in table 3.

Table 3

The Number (N), Mean (M), Standard Deviation (SD) and t value of the scores on Attitude towards Learning among the Male and Female students of secondary schools.

Variable	Gender	N	Mean	SD	Mean Difference	df	t value	significance
Attitude	Male	322	182.07	23.299	9.84	518	4.168	.000
	Female	198	191.91	30.233				

Note: * Significant at .05 level.

From the table 3, the investigators observes that the obtained t value, t (518) = 4.168, p < .05. The t-value is greater than the theoretical value 1.96 at .05 level of significance. Therefore, the null hypothesis H01 is not accepted with respect to the total scores on Attitude towards Learning. It indicates that there is significant difference in the means of scores on Attitude towards Learning between male and female students of secondary schools. The means of scores on Attitude towards Learning of male students is 182.07 and that of female students is 191.91. The mean difference is 9.84. Therefore, it is clear that female students are superior in Attitude towards Learning when compared with male students.

Figure 2 gives the bar diagram which represents the means of scores on Attitude towards Learning of male and female students.

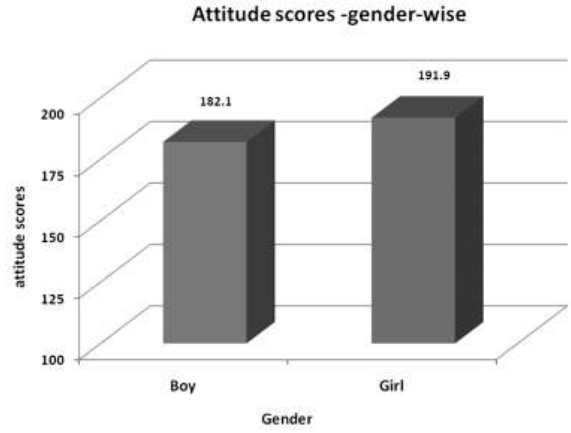

Figure 2: The bar diagram which shows the comparison of means of scores on Attitude towards Learning with respect to gender.

The Difference in the Means of the Scores on Attitude towards Learning with respect to Locale of the school

In order to find out the difference in the means of the scores on Attitude towards Learning with respect Locale, the investigators analysed and interpreted the data using inferential statistics namely two tailed test of significance of difference between means for large independent samples. The investigator formulated the null hypothesis H02 for the purpose of testing.

$H_0$2: There exists no significant difference in the means of scores on Attitude towards Learning between the students of secondary schools situated in the Urban and Rural areas.

The investigator analysed the data with the help of SPSS (version 20.00) and the results are detailed in the table 4.

Table 4

The Number (N), Mean (M), Standard Deviation (SD) and t value of the Scores on Attitude towards Learning among the students of secondary schools situated in Urban and Rural areas.

Variable	Locale	N	Mean	SD	Mean Difference	df	t value	significance
Attitude Towards Learning	Urban	254	182.91	28.959	5.68	518	2.448	.015
	Rural	266	188.59	23.779				

From table 4, the investigators observe that the obtained t value, t (518) =2.448, p < .05 is greater than the theoretical value 1.96 at .05 level of significance. Therefore, the null hypothesis H02 is rejected with respect to the total Attitude towards Learning. It indicates that there is significant difference in the means of scores on Attitude towards Learning between students of secondary schools situated in the urban and rural areas of Kottayam district. The means of scores on Attitude towards Learning of students from secondary schools situated in urban area is 182.91 and that of students from secondary schools situated in rural area is 188.59. The mean difference is 5.68. Therefore, it is clear that the scores on Attitude towards Learning of the students from schools situated in rural areas are greater than that of students from secondary schools situated in urban areas.

The bar diagram which shows the comparison of means of scores on Attitude towards Learning of the students from secondary schools situated in urban and rural areas is given in figure 3.

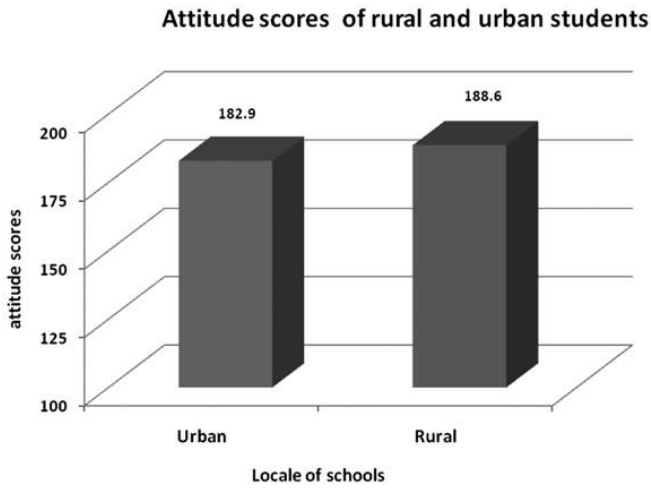

*Figure 3: Comparison of the means of scores on Attitude towards Learning of students of secondary schools situated in urban and rural area*s

The Difference in the Means of scores on Attitude towards Learning with respect to Type of Management of schools

In order to find out the difference in the means of the scores on Attitude towards Learning based on the type of management of schools, the investigators analysed and interpreted the data using inferential statistics namely two tailed test of significance of difference between means for large independent samples and formulated the null hypothesis H03 for the purpose of testing the significance of difference.

$H_0$3: There exists no significant difference in the means of scores on Attitude towards Learning between the students from Government and Aided secondary schools.

The data has been analysed with the help of SPSS (version 20.00) and the result is presented in table 5.

Table 5

The Number (N), Mean (M), Standard Deviation (SD) and t value of the Scores on Attitude towards Learning among the students from Government and Aided secondary schools.

Variable	Type of management	N	Mean Difference	SD	Mean	df	t value	significance
Attitude Towards Learning	Govt.	251	185.83	23.381	0.02	518	.009	.992
	Aided	269	185.81	29.266				

From table 5, the investigators observe that the obtained t value, t (518) =.009, p > .05. The t value is less than the theoretical value 1.96 at .05 level of significance. Therefore, the null hypothesis H03 is accepted with respect to the scores on Attitude towards Learning. It indicates that there is no significant difference in the means of scores on Attitude towards Learning between the students of Government and Aided secondary schools of Kottayam district. The mean difference is 0.02.

The bar diagram which shows the comparison of means of scores on Attitude towards Learning based on type of management of schools is given in figure 4.

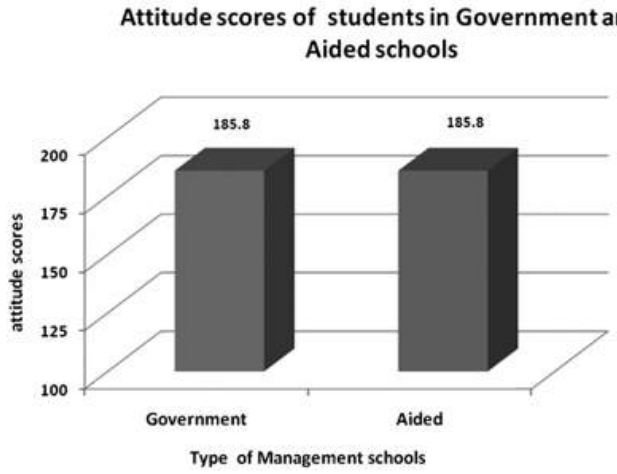

Figure 4: Comparison of means of scores on Attitude towards Learning of Government and Aided secondary school students

Major findings of the study

The major findings of the study are given below.

- There is significant difference between the means of scores on Attitude towards Learning among the secondary school students of Kottayam district with respect to Gender. The female secondary school students are superior to male students in Attitude towards Learning.
- There is significant difference in the means of scores on Attitude towards Learning among the secondary school students of Kottayam district with respect to Locale of the school. Students from rural secondary schools found to be superior to students from secondary schools in urban area.
- There is no significant difference in the means of scores on Attitude towards Learning between the students from government and aided secondary schools of Kottayam district.

Educational implications of the study

- The present study helps to find out the students' Attitude towards Learning in order to assess their needs, opinions and

knowledge about learning and education. The results of this survey will be of considerable interest to those who plan and implement the policies and services of current and future governmental and private sector programs and initiatives in the area of learning and education.

- The survey will help identify knowledge gaps that exist and lead to a deeper understanding of Attitudes toward Learning among the secondary school students.
- The study of Attitude towards Learning among the secondary school students in Kottayam district, points out the importance of providing conducive atmosphere in home, school and society for developing and maintaining positive Attitudes toward Learning. The teachers and parents should provide good atmosphere in school and home to develop and maintain positive Attitudes toward Learning.
- The government and private sectors can take necessary steps to eliminate poverty and lack of access to supportive programs and services in school there by maintain a positive Attitude towards Learning. Positive Attitude towards Learning helps students to achieve goals and attain success.
- School, home and society must adequately equip to be supportive, caring and challenging in a positive way. It brings more happiness into student's life and produces more energy.
- School and home helps the students to eliminate the barriers and conditions of risk- taking behaviours, negative pressures etc. Positive Attitude towards Learning helps students to encounter fewer obstacles and difficulties in their daily life and it becomes life smiles at them. This helps to maintain good personal health.
- The teachers must provide opportunities to develop new interests and build warm relationships in order to maintain students' motivation towards learning. It will increase student's faith in their abilities, and brings hope for a brighter future. Thereby they become able to inspire and motivate themselves and others.

Conclusions

This study seeks to provide a better understanding of students' Attitude towards Learning. A student must possess positive Attitude towards Learning for their educational and personal development. A student with positive Attitude towards Learning will show academic excellence and interest in learning process.

It is observed from the present study that there is difference in attitude with respect to gender and girls scored significantly greater compared with boys. It shows the need for motivating the boys to acquire and maintain positive Attitude towards Learning and the girls to maintain it. It is observed from the present study that the Attitude towards Learning is significantly higher in the case of rural school students than urban school students. This pointed to the need to understand the reason behind it to take necessary steps. It also shows the need for developing suitable atmosphere in the school for maintaining positive Attitude towards Learning. The results also show that the

attitude do not differ with type of management of schools. The results of the study suggest the necessity of adopting suitable measures to improve the Attitude towards Learning among boys and urban students.

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SOCIAL FORMATION CALL FROM CLASSROOM

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Abstract

Classrooms have to prepare students for social life. Social life is not limited to performing and continuing the social roles played by the present generation. Instead, this is a call to prepare the children to answer the social evils. In order to prepare matured citizens who can transform the society, present generation have to be trained to live and work together with various sectors of the society, and without exception respecting various communities. This is one of the major challenges and duties of the classroom; social skill training call entrusted to the classroom.

Key Words: *Social role of the classroom, social skills, social science teacher, socially informed citizens, school, etc*

Introduction

India and its history speak of unity in diversity. But India's present social scenario brings social divisions and gaps between different social groups, especially after the present central government's oath into power. There is a social unrest and social crisis existing in the current social relations between varied social groups of the nation. These complex social phenomena motivate and ask for scientific analysis of the social world of the nation. And this life of the nation directed the researcher to delve into the social formation provided by Indian schools; focusing on the classrooms.

Delhi is the most politically sensitive and complex urban area of India. The diversity occupied here in all sorts of lives is tremendously varied. It is inevitable to scientifically analyze how this diversity is lived out in human relations based on co-operation, mutual respect and collaboration in Delhi, in order to learn about the social life of the people. Thus this approach will help the future of the nation to be 'socially' built.

To these needs, how do the schools offer training and formation is the exact research question which helped the researcher to fasten his belt to move to the schools. Thejourney is topicture and help to understand the present social background and social practises of the classrooms; to expose the life of the social science classrooms. This will lead the academicians and planners to think seriously about the

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classroomlevel social skill training in the formation of the future citizens of the nation.

Social resources available to the classroom are abundantly potential to boost the understanding level of the students, to correct and to find solution for the problem of social stratification, and to build up socially informed and matured citizens. Classroom can train socially informed, respectful and collaborative agents who will develop the nation into better heights. 'In order that the students learn, practice, and maintain expected social behaviour, educators must teach social skills within the context of the various school settings that students encounter each day. For example, when teachers explicitly teach, model, and reinforce the expectations and rules for appropriate classroom, cafeteria, playground, and bus behaviour, students are prepared to interact effectively with others in each environment'(Gould, 2010, p.1).

But many are sceptic regarding the present day schools' contribution to the social formation of the future generations. 'Effective social skills instruction should be infused into the general education curriculum' (Miller et al., 2010, p.3). 'Education, generally, is suffering from an acute bout of competitive individualism' (Gale &Deusmore, 2003, p.91). These findings are already available to the academic world. But here in the present research, the journey is set to understand the exact practises of the private schools and the way the schools behave in the social formation of their wards.

The number of students in private schools issignificantly large to influence the social fabric and functioning of our nation. And the private school students come from 'middle and higher income groups' mostly; practically they have more positive or negative social influence than the lower income groups in the building up of the nation. The importance of this study is to know, how the high profile private schools of Delhi are contributing to the social formation of the future citizens.

Researcher is not jumping into evaluation or judgment of the matter in search. There are many theories which present the reasons for classroom behaviours; commercialisation and capitalistic agendas lead the classrooms into business training centres and disconnect the future workers from the social world; market model of teaching-learning has strong influence on the behaviour of the students and of the teachers. Another theory speaks of the 'contemporary trends' of selfishness and isolation whichare caused by various technological innovations and way of life leading to the practises of getting disconnected from the other, and this has strong impact even in the teaching-learning process. And moral thinkers analyse the present day social relations among the children to brand as the new ethical format which is motivated by the present social and psychological practises. All these theories are open for discussion.

This study permeates into many areas of education; education and values, school and society, social transformation through schools etc.

Research questions

- How do schools answer to the social gaps and divisions existing in the larger and smaller societies?

- What are the roles of social science teacher in training socially informed citizens? And how does the social science teacher comply with this role?
- What is the present social life of the classroom – know the status quo of the social science classrooms?

The historical backup

The discussion on 'school and society relationship' had serious intellectual feeding towards the role of schools. The arguments developed into varied formats and one of the major emphases wason the question whether education is for individual development and determination or for the collective empowerment?

The long history of the debate on 'School and society relationship' paved way for more adamant practical actions when it came to the time of industrial revolution. Theindustrialrevolution necessitated increased number of work force. And to meet that requirement, education has reoriented its objective for 'preparation and production of workforce for the companies'. The same had replication in the colonial India; British produced 'educated people' according to the needof the East India Company, the then market force; to run the offices.In that way, market force and Corporates controlled the objectives of education. On the other hand,the national freedom movement of India reaffirmed the goal of education as the 'social transformation and development of the nation'. Many of the freedom struggle leaders have emphatically proclaimed the same to the people. Mahatma Gandhi, Nehru, Dr Radakrishnan and many more purified and planned the education system for the same.

Many thinkers and writings highlight the social responsibility of the schools. 'Schools are responsible for enabling students to be economically successful; they were viewed as equally responsible to perform certain social functions, such as preparing youth for democratic citizenship and social literacy.' (Gale &Deusmore, 2003, p.28).The most important contribution is probably that of John Dewey, whose 'Democracy and Education' persuaded the academicians to locate education in the social realm, as a primary instrument in building modern democracy. The same ideas can be seen from different corners; ''education has to promote the spiritual, moral, mental and physical development of the community. Education serves as the contributing part of the glue that held society together'' (Ewens, 2012, p.159). The present research is the current offshoot of that ever existing academic debate.

Even in the process of socialisation done by the social institution of schools, there are serious troubles happening. Schools are used by dominant, powerful agents to coveytheir ideologies and to maintain their positions in the society for generations. This way, schools present the existing social practices and they are legitimised and induced into the future generations. In this way, school's social responsibility has been severely criticised and concept similar to 'deschooling society' has emerged. There is an another deceptive locus to which the thinking of the social roles of the school can turn, which is 'socialisation'(John Dewey in his Democracy and Education, chapter 2 – 'Education as a social function' speak of education as, "we speak of education as shaping, forming,

moulding activity--that is, a shaping into the standard form of social activity. In this chapter we are concerned with the general features of the way in which a social group brings up its immature members into its own social form")where the current social practises are to be 'fixed in the future generations' and 'the future generations are made to fit into the social way of life'.

'Teaching and learning that happen inside the class must be connected to the context of the global and social structures and relations' (Gale &Deusmore, 2003, p.15). And similar practises and increased participation in the social environment will help the students to learn better, understand well and to contribute to the society effectively. All these confirm the role of school to provide significant training for the children to work with the society; make children belong to a community, help them work with community members, practise social values etc. The present research is more focusing into the social training which will help the students to learn better, to know the society well, to collaborate with various social groups for the development of the nation and thus to transform the society.

The aim and objective of education envisaged by Delhi Directorate of Education is 'Education holds the key to economic growth, social transformation, modernization and national integration… It aims at promotion of a national, a sense of common citizenship and composite culture and strengthening national integration' (Directorate of education, 2015).

Thinkers, planners and policy makers direct the education system to socially equip the students for 'socially inclusive growth'. But how the practical manifestations happen in the schools is a matter of research. And also, the significant confusion and debate over the goals of education; especially when it comes to the classroom practises is also asking for more serious studies in this field. 'The goals of classroom teaching are never straightforward: the relative importance to be put on the many different goals of any curriculum,… on social as opposed to academic educational goals…' (Hagger& McIntyre, 2006, p.21). Accepting these confusions and debate, and the long history of the academic discussions on the topic, it is good to study the particular manifestation of the 'social formation practices of Delhi based private schools'.

Sample

The population of the study is all Delhi based private schools and its elementary social science classrooms; its social behaviours and social formations. But the study is planned as an ethnographic one. And researcher is focusing into an elementary social science classroom in order to have deeper knowledge about the social relations and formations happening in the classroom relations.

Schools in India are run by government and private agencies. The schools run by private agencies get more admiration, accepting them as the 'qualitative fields of social training and transformation'. And there is a 'hot trend' from the part of the parents to admit their wards into private schools for their 'quality education'.And the society maintains a notion that private schools contribute better and train the children better

compared to the government schools' training. Researcher is looking and revisiting this common sense assumption and verifying it with evidences.

The present study is done in a reputed private school of South Delhi. South Delhi is special and the people living there also have particular social and cultural capital; ''ideally located this part of the city boasts of well-developed infrastructure, uninterrupted electricity and abundant water supply. South Delhi is one of the most high class areas in the city'' (South Delhi District Map, 2014).

In order to know the nature of the sample school and the characteristics of the participants of the school it is good to know the urban social climate and its influence on the schools. The background and nature of urban students have unique configuration; 'Urban areas ….are often characterised by extreme economic and social polarisations, complex ethnic and racial mixes, segregated neighbourhoods and the increasing migration of low-income peoples as intra and international refugees. Within these urban areas, wealthy neighbourhoods or enclaves resemble walled cities that are intended to provide security and peace of mind to insulate insiders from those outside their walls' (Gale &Deusmore, 2003, p.96). And the classroom is a mix of complex diversity; of religions, of cultures, of linguistic groups, of minority and majority, of rich and poor, of different states of India etc. These all complexities are lived in the classrooms. The task of the research is to document the culture and practices of the people in the classroom setting; and to analyse them.

Design

The design of the study narrates the methodology of research. It also explains the methodology of locating the subject area of research; the systematic conceptual location of the exact topic is also explained here. The research is aimed at systematic study of the social life of the classroom; it is designed to explore the cultural phenomena active in the elementary level social science classroom. Researcher has visited the school and the social science classroom of the elementary level for one year. And the social formation happening in the classroom, the social relations in the classroom, the directions and pedagogies provided by social science teacher, the responses and contributions of the students in the classroom etc. are observed. The methods used for data collection are observation and interview; researcher has captured the social meanings of classroom behaviours of the agents in naturally occurring settings. Researcher has visited the classroom for a year, and attended more than 30 hours of classes.

While moving into the exact body of research, knowing the meaning of 'social' and the importance given to the 'social' as the main focus of the research is to be understood by the readers. The research is focusing on the importance of the 'social' in the classroom and the social has its unique meaning in various contexts, aspects and processes of the lives of the school participants.

This research speaks of the social aspects of education. What is the meaning of the 'Social'? Knowing the meaning of the term 'social' in its width and length as

understood by the researcher in this particular study is very much important to realise the seriousness of the research topic. Social is generally 'community mindedness'and 'relating to human society and its members' (Sociology definitions, 2015). There are different contexts in which the term is used and some of the usages are; students (and school) and their social background, social pedagogy (discussion, collaboration – working together for a common social goal, bring and sharethe hands-on experiences and local lives into the classroom, child-centric approaches and democratic space provided for members of every social strata/group etc.), social transformation as the objective of education, relations in the classroom understood as the relations between agents of varied social groups happening in the micro-social world of the classroom etc. are very much important in educational scenario. Students should be trained in social skills; and Social skills are those communication, problem-solving, decision making, self-management, and peer relations abilities that allow one to initiate, build, and maintain positive social relationships with others. Here, 'social' is to be understood in its unique meanings in different contexts.

This particular research report is mainly describing only the teacher's contribution and behaviour to the social formation happening in the classroom. (How does the teacher socially form the children? And what is the nature of the social relations happening in the teaching-learning process of the classroom?…). The social interactions and behaviours occurring by the influence of teacher in the classroom are focused in the study.

Findings

Social stands for 'relations' and 'backgrounds';social background of every person and of every community is of great value to those respective persons. Present social conflicts and social divisions call for social training which is to be done seriously through the classrooms. India has to exercise social economy practices – not for sale – for national integration, working together and growth through her classrooms. The conceptual responses to the contemporary social needs should be complemented with practices.

There were social renovation, innovation and transformation happening at the time of freedom struggle. Freedom struggle was not sole fight against the foreign rule, but was a struggle against the social evils existing in India. But that line of social revolution could not be continued; and that has lost in social conflicts (present social life of the nation doesn't guarantee qualitative social improvement and political parties play with 'social backgrounds' of different communities to make sure their votes). The story of these social transformations has to be reopened; need to open the doors of social world for qualitative improvement and progress. Our social history has to pave way for our social imagination to be alive. And our future social stories have to be richer; deep social relations, mutual respect and working together should become qualitatively better for the development of the nation.

Social resources of our nation are particularly rich with their unity in diversity. India has very rich historical and multicultural social setting already as resource and raw

material. Present social scenario invites all social groups to practice social diplomacy; respect one another, communicate with one another, work together and work for a common goal. All citizens have to support to resolve the social conflicts and to fill the gaps through education. This is a call which can be answered by Indian society; Indians can do it relatively very well in this regard. And in that way India can contribute social integration model to the world.

This paper is presenting only one of the areas of the findings whichhave been arrived by a wider research conducted in a broad area. And that particular aspect is 'the influences of the social science teacher in the classroom'. The behaviour and life of the teacher in the classroom produce social impacts and marks on the character of the students. And that influence occupies higher influence by laying the guidelines for the children even in their way of approaching the particular subject.

The evaluation of the behaviour of social science teacher in the classroom manifests 'structure formation', and the structure ever exists in her classes till the final day of teaching. Social science teacher's behaviour has a very clear motive of making a structure in the classroom; in which the whole class has to behave all through the forthcoming year. Teacher makes a structure for the class. And teacher has started to form the students 'the way in which they have to behave in their relations, communications and responses'.This structure formation happens from the first class of the year. As the year progresses it is very clear that, every class is having almost similar structure. Teacher always tries to maintain the structure/ behaviour patterns expected of the children all through the classes for the whole year. And this pattern – power control – never ceases to exist even after the academic year. This structure exists throughout the children also in their approach to the social science discipline.

Teacher is maintaining a high voltage danger in making the learning an individual affair. Learning is done in a 'private way'; children are given word meanings and question/answers; portion is marked for exams. The learning is done without discussion or collaboration. The way teacher approaches each class is providing more input into this type of learning; teacher reads the portion, gives word meaning, very seldom she tells some events/examples, and no chance for the children to speak about their experiences and life-related events in the class(Even children's questions are limited to that of asking, 'Mam, what is the meaning of the word', 'repeat the meaning' etc. – no higher order thinking questions are instigated). Learning is made a completely individual affair. Competition and aspiration for better result also lead the children to maintain secrecy in learning (most of the students are very particular not to share their copies to the classroom partners). 'Learning becomes an individual activity; taking in and consuming more information. Learning is seldom connected to changing of the person; changes in the social and emotional states of the person and of the society are scarcely discussed' (Carnell & Lodge, 2010, p.11).

Children have to formally register their achievement in their skills. But, many a time, leading children into higher order thinking – questioning, analysis, evaluation and problem

solving, etc. – become challenge for the teachers. And this challenge leads to the absence of such thinking directions. And this indirectly leads to the suppression of children's involvements in the classroom. Similar happens in the class, teacher replies to the questions of the students saying, 'this is out of context', 'we have many more things to finish', 'this is not for exams', 'your duty is to follow text book and to finish the copy writing' etc. Teacher is trying to limit the intellectual and imaginative space in which children think to study. There is strong control over the students' thinking and imagination from the part of the teacher to make them focused and 'not to be diverted' from the text book words and pictures. The jargons used in the classroom also reduce even the imaginative social world of the children into simple text book events and narration; children's initiative and occasional interventions are redirected into 'mark the important point' 'this is not for copy' 'mark it for copy writing' and 'mark for exam' and 'don't disturb the class'.

Teacher reduces the social world which is to be discussed in every chapter into isolated pictures. Text books bring character and examples from various contexts. Every social science chapter speaks of social relations and the agents of different social groups; and representatives of most of the social groups discussed in the text book are present in the urban area classrooms. This presentclass is having children from 10 states, members of several religious groups (more than 8), the rich and the Economically Weaker Section, from different linguistic backgrounds, and also from normal and differently abled physical structure. The world intended by the text book is wider and the relations narrated in the text book are also complex. But this wider social context is reduced into word meanings, and some isolated pictures; teacher never connects the events narrated in the text book into living and hands-on experiences which the participants of the classroom live. 'We don't have time' 'we have many more to finish' 'that is not for exam' etc. are common commends at this juncture of explanation. The context of learning is reduced; classroom distances itself from social life while teaching-learning interactions are happening in the classroom.

Knowledge should not be transmitted to 'passive children'; instead teachers should prefer to facilitate the discovery of knowledge that is interesting to the children through connecting them to social world. But, the learning space provided for the children; the events said, explanation given and the connection made to the daily lives of the children etc. are very miniscule. The context, in which the lessons are read out, narrated and explained are very much narrow. National Curriculum framework and national educational policies passionately motivate every teacher to bring 'hands on experience', local content and social context to the classroom for easy explanation and better understanding. But this teaching-learning process is not utilised, initiated and ignited. And isolated learning process is powered and forced in the classroom; which is very much disturbing.

The pedagogy used for the social science should empower the children; greater social competency required for the future generations can be trained by this.

Students also need social skills to analyse and evaluate the social world and the ways to transform it. But sadly, the way of discussion and explanation 'endssolely with providing the word meaning'; and this leads the whole class to the marking of question and answers for the exam. The concepts and relations explained in the text book can very well be explained by the true representatives of each society who are already present in the class as students. But teacher is very much conscious not to allow such 'waste of time' attempts. Practically, explanation means 'giving dictionary meaning' of the words. This is the way the social relations are powerfully controlled and monitored by the teacher. Very seldom teacher brings any incidents and experiences into the classroom. Collaborative way of learning is never practised; teacher never takes initiative to build up collaborative learning structures and practices. (Carnell & Lodge, 2010, p.88).

Social resources are very less utilised in this private school. Instead, more and more technological facilities and physical instruments are added to the learning processes, where 'life is not lived, but meanings are said' and 'switch is on' always for technology and 'mouth is shut' of the humans'. And children are always prepared for exams and not for life.

School as a powerful social agent of making 'rules' for social life is also actively contributing and supporting 'the social control done by the teacher'. School as a whole is preparing dais for the powerful social control of the teacher which happens in the classroom. School side-linesand reduces the importance of the social diversity. Andindirectly controls everychild in its dealing with the diversity. School has long lived culture in this regard, which is spoken by the teachers and fearfully practiced by the children, that is, 'never ask personal and social background of any student. This is unnecessary anduseless. No one has the right to ask private maters'. And even the close friends also do not know each other and other's family and social background in detail. 'Asking and talking such things are taboo' here in the school. Promotion of positive interaction building is also missing.

All these reduce the effect and complexity of the learning process children undergo. Providing social context for better understanding is not provided here. The learning method of the students is affected directly by this; learning stops with 'knowledge' (Primary level of Bloom's taxonomy). And confirming social transformation as the objective of education is side-lined in the educational system. There is no change to the dislike of the children to the social science after attending long years of classes. They learn only for exams; they mark and prepare copies, and by-heart for exam. And the students dislike social science saying, 'this is a useless subject'.

Conclusion

Social skills are very much needed in every ones relations with one another; and the same social skills are very much important in the relations between members of different social groups. And in the present context of India, social skills are of great importance, proper training in social skills can provide peace, stability and development for the nation. Social skills help in 'collaboration' (mutual acceptance and respect, and working

together for a common good) with various social groups. And this will lead to the proper development of India. These social skills are to be given more importance in the classroom practices. More research studies and practises are required in this field.

The present study opens up the real life of the social science classroom and shows the way in which the social formation is happening in social science classroom. Important concepts and agents in the social formation process revealed in this research will help future researchers to focus on the variables and agents which have been already highlighted in the study. This will help the policy makers, planners and researchers to find out more focused study into the same area. More studies are to be done in the areas of 'social pedagogy', 'social integration rules and practises of the schools', 'importance of social context in the processes of learning and understanding' etc…

Schools need structural mechanism and systems to deal with the social context and background of the children. Bringing social context into the classroom will enable the children to 'understand the concepts easily and will help children to connect theory with practical application'. In this way, social context is indispensable in the process of teaching-learning. Local and national practises in this regard are to be further studied, to know 'how social is distributed into the classrooms' in the pedagogical practises.

The observation and analysis of the social world and social formation of the classrooms show the intellectual community that present schooling poses dangerous and substantial challenges for the future society. There is an erosion of the social world from the classroom interactions. And these dangerous moves ask for 'social amendment' in the teaching-learning process. It is high time to consider and to bring into the policy notification regarding the social set up in which teaching-learning process has to happen. There should be appropriate social dais for the teaching-learning process. And this has to be seriously studied further and appropriate forum should take decision and bring policies for the same.

Further studies are required to find out, document and suggest the social world which is to be injected into the classrooms; to establish the importance of the social world in the teaching-learning process. Over the ages, the education systems and classroom relations were not transparent on social interactions happening in the classrooms. This research should contribute to that absence and silence, and this should help the policy makers, teachers, management, parents and students to give importance for the social dais in which the teaching-learning happens.

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A STUDY ON THE PERCEPTION OF STUDENT TEACHERS ON THE VARIED LEARNING EXPERIENCES AND OUTCOME OF B. ED PROGRAMME

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Abstract

Education is referred to as any act or experience that has an impact on the academic success of an individual. It has largely contributed to build a strong base for developing knowledge, providing an enabling environment for innovation and in building human resources required for a potential future knowledge economy. Active learning is an interpretive process that involves construction of knowledge by the individuals and energized initiatives, which seems to be a critical component to keep students in track and thus a best predictor of student success. Discovering what our students know and how they think is an important component of designing and selecting effective instructional strategies and proper learning experiences. Objectives of the study were to find out the varied learning experiences of student teachers in their B.Ed and to determine the relationship between the learning experiences and outcomes of B.Ed programme as professed by B.Ed students . Learning experiences and outcome questionnaire was employed for this study. The study reveals that the learning experiences of B .Ed programs perceived by student teachers belong to male and female categories are not highly significant. Likewise the outcome of the said programme as perceived slightly differ from each other. The study also reveals that there is significant relationship between the learning experiences and outcomes of B.Ed programme as perceived by student teachers. It throws light on the fact that conducive and appropriate learning experiences will benefit the learning life of learners to a greater extent.

Key words: *Perception, learning experiences, outcome, knowledge construction, etc.*

Introduction

Education is referred to as any act or experience that has an impact on the academic success of an individual. It has largely contributed to build a strong base for developing knowledge, providing an enabling environment for innovation and in building human resources required for a potential future knowledge economy. In popular parlance, education is the modification of

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behavior in desirable direction (Patik, 2012). Learning experiences are a way to think about what a learning intervention might be in the context of desired end goals and outcomes. Active learning is an interpretive process that involves construction of knowledge by the individuals and energized initiatives, which seems to be a critical component to keep students in track and thus a best predictor of student success. The development of higher order thinking skills is almost dependent on this type of interactive teaching and learning and learning content could actually include not only the "what's but the "how's" of learning.

John Hattie (2009) suggests that in order to move students to the appropriate steps of learning, teachers must match student needs with learning experiences. To accomplish this, teachers must know how their students think and what they know and then use this information to create meaningful experiences to advance students' learning. Discovering what our students know and how they think is an important component of designing and selecting effective instructional strategies and proper learning experiences. Teachers need a rich arsenal of teaching strategies to be able to provide multiple opportunities and flexible alternatives to help students learn (Hattie, 2009).

Operational definitions

Learning experience

It covers the varied classroom experiences get from the combined effort of peers and teachers through the active interaction and involvement of individual mode as well as in a collaborative group set up.

Outcome

It means the result of the B.Ed course in a comprehensive manner.

Objectives of the study

1. To study the varied learning experiences of student teachers in their B.Ed programme
2. To study the outcomes of B.Ed programme as perceived by Bed students
3. To compare the learning experiences of B.Ed programme as perceived by B.Ed students from male and female category
4. To compare the outcomes of B.E d programme as perceived by B.Ed students from male and female category
5. To determine the relationship between the learning experiences and outcomes of B.Ed programme as professed by B.Ed students

Hypotheses of the study

1. There is no significant difference in the learning experiences of B.Ed programme as perceived by student teachers from male and female category
2. There is no significant difference in the outcomes of B.Ed programme as perceived by student teachers from male and female category
3. There is no significant relationship between the learning experiences and outcomes of B.Ed programme as supposed by student teachers come under male and female category.

Sample selected for the study

75 B.Ed students were selected for the study.

Tool used

Learning experiences and outcome questionnaire (prepared and standardized by the investigator)

Standardization of the tool

The questionnaire containing an initial draft of 80 items was prepared and standardized using the qualitative and quantitative processes. College teachers and student teachers were involved in the standardization process. Opinion and suggestions of experts were used for qualitative process of standardization and the students' scores were taken for the quantitative aspects.The investigator-analyzed books, periodicals, internet resources and other descriptive materials to procure the requirements for getting directions for the selection of items related to the impact of learning experiences. In addition to that, the investigator referred previous studies, related literature and collected valid information from experts through formal and informal discourses. The personal experience of the investigator as a teacher educator internalized through the curriculum transactional modes enabled to devise appropriate frame works in this respect. After getting deep understanding regarding the concept, the investigator started to write the items.

The draft questionnaire was subjected to the experts' opinion and they were requested to validate and rate the same with their valuable remarks for each statement. They were asked whether the same statements with the five ratings could be used to assess the learning experiences and outcomes of the student teachers. They were requested to rank each statement as SA, A, UD, DA, and SD. The expert validation with their valuable remarks helped the investigator to filter even the minute defects. In this stage, 15 statements were removed and the number of statements retained is 65 after the modification with the large group expert survey. The draft questionnaire was administered to the student teachers and the response sheets were scored and arranged in a descending order of the total score. The highest 27% and the lowest 27% of the response sheets were separated. The statements for which 't' value is greater than or equal to 1.75 was regarded as an item, which possesses internal consistency and hence discriminating power .20 statements having't' value lower than1.75are rejected from the draft form. Thus, 45 statements were selected for the final tool.

Validity

It refers to the meaningfulness of the interpretations and uses of a test-score and it is the most important property of an assessment. Content validity requires both item validity and sampling validity. In the present context, the investigator discussed the items in the questionnaire with various experts in the field of language education, made appropriate modifications in the items, and hence ensured content validity.

The following section deals with the results obtained from the analysis carried out. The results obtained from the analysis of varied learning experiences of B.Ed programme perceived by the B.Ed students are detailed in the table below.

Table 1

Perception of student teachers with regard to the learning experiences of B.Ed programme

Scale	Male	Female
N	33	42
Mean	69.74	71.21
Standard Deviation	7.56	7.99

Table clearly indicates that the mean score of learning experiences of students belong to male category is 69.74 and the mean score of female students is 71.21.there is slight difference between them. The standard deviation value also shows that the variance of two categories is almost same. It means that the difference is not significant with regard to the opinions of student teachers towards the learning experiences provided as part of B .Ed programme.

Perception of student teachers with regard to the outcomes of B Ed programme is detailed in the following table.

Table 2

Perception of student teachers with regard to the learning outcome of B.Ed programme

Scale	Male	Female
N	33	42
Mean	76.16	81.34
Standard Deviation	8.21	8.34

The mean score of outcomes of student teachers come under male and female category are 76.16 and 81.34 respectively. It shows that there is a slight difference between them. The standard deviation values also indicate that the two groups are approximately same with regard to this aspect. The next section deals with the results obtained from the testing of hypotheses.

Hypothesis 1

The null hypothesis states that there is no significant difference in the learning experiences of B Ed programme as perceived by student teachers come under male and female category.'t' test was used for this purpose. The following table reveals the result.

Table 3

Learning experiences of B Ed programme as perceived by student teachers come under male and female category

Group	N	Mean	S D	t-value	Level of sig:
Male	33	76.16	7.56	0.09	NS
Female	42	81.34	7.99		

From the table, it is seen that the't' value is not significant .Hence the null hypothesis is accepted. Therefore, we can conclude that there is no significant difference in the learning experiences of B Ed programme as perceived by student teachers come under male and female category.

Hypothesis 2

The null hypothesis states that there is no significant difference in the outcomes of B Ed programme as perceived by student teachers come under male and female category.'t' test was administered to find out the results. The table below details the result obtained from the analysis.

Table 4
Outcomes of B. Ed programme as perceived by student teachers comes under male and female category

Group	N	Mean	S D	t-value	Level of sig:
Male	33	76.16	8.21	1.21	NS
Female	42	81.34	8.34		

From the table it is clear that the't' value is not significant .Hence the null hypothesis is accepted. It can be concluded that there is no significant difference in the outcomes of B Ed programme as perceived by the student teachers come under male and female category.

Hypothesis 3

The null hypothesis states that there is no significant relationship between the learning experiences and outcomes of B.Ed programme as supposed by student teachers come under male and female category. Co efficient of correlation technique was used to find out the relationship. The table reveals the results.

Table 5
Relationship between learning experiences and learning outcomes

Variable	N	R	Level of sig:
Learning experiences	75	0.498	S
Learning outcome			

The table reveals that there is significant relationship between the learning experiences and outcomes of B.Ed programme as perceived by student teachers. Hence, the null hypothesis is rejected.

Major findings of the study

The study reveals that the learning experiences of B .Ed programs perceived by student teachers belong to male and female categories are not highly significant. Likewise the outcome of the said programme as perceived slightly differ from each other. The study also reveals that there is significant relationship between the learning experiences and outcomes of B.Ed programme as perceived by student teachers. It throws light on the fact that conducive and appropriate learning experiences will benefit the learning life of learners to a greater extent.

Suggestions for improvement

In order to keep in touch with the changing knowledge and creating successful performers who are able to become high achievers in a variety of spheres require some essential parameters to meet the aspirations of learning. Shift from teacher centric to learner centric definitely imbibes certain needed skills and incorporating various methodologies in every classroom practices will lend for promoting 21st century skills among students (Rekha, 2012).Today's knowledge based society needs and demands every learner to prepare to develop these skills and realize the essential role of learning task in an efficient manner. Instructors need to identify a set of learning activities that

together include opportunities for students to acquire information and ideas, engage in a doing or observing experience, and reflect on the learning process as well as the subject matter. These activities include group work, discussions, simulations, problem-based learning, case studies, service learning, and many more. Significant learning experiences will not happen unless teachers learn how to design significance into the learning experience itself. When instructors develop the ability to do this, students will learn things that will have a positive, substantial, and lasting influence on their personal and work lives and their ability to contribute to the multiple communities of which they are a part.

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A CRITICAL ANALYSIS ON MATHEMATICAL LEARNING DISABILITY CALLED DYSCALCULIA

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Abstract

Learning disabilities can be extremely frustrating for some children. When it comes to learning disabilities in mathematics, it's not always easy to know what to do and where to find help. Learning disabilities in math vary greatly depending on the child's other strengths and weaknesses. Dyscalculia is the term used to identify those who demonstrate problems with numbers. Those with Dyscalculia may also have problems with learning to tell time, as well as issues with identifying the left side from the right side. Despite their problems with math and numbers, people with Dyscalculia may have an average or even above average IQ score. In this study the investigator wishes to look in detail about the characteristics of dyscalculia and how they can be identified and strategies to overcome Dyscalculia. Challenges and necessities of meeting their needs also discussed.

Key-words: *Dyscalculia, diagnosis and symptoms, identification, Strategies, etc..*

Introduction

Learning disabilities are neurologically-based processing problems. These processing problems can interfere with learning basic skills such as reading, writing or math. They can also interfere with higher level skills such as organization, time planning, abstract reasoning, memory and attention. It is important to realize that learning disabilities can effect an individual's life beyond academics and can impact relationships with family, friends and in the workplace. Learning disabilities, and their accompanying academic challenges, can lead to low self-esteem, isolation, and behaviour problems (Butterworth & Yeo, 2004).

Teachers should counter these problems by creating a strong support system for children with learning disabilities and helping them learn to express themselves, deal with frustration, and work through challenges. By focusing on child's growth as a person, and not just on academic achievements, you'll help him or her learn good emotional habits that set the stage for success throughout life. Since difficulties with reading, writing or math are recognizable problems during the school years, the signs and symptoms of learning disabilities are most often diagnosed during that time. However, some individuals do not receive an evaluation until they are in post-secondary education or adults in the

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workforce. Other individuals with learning disabilities may never receive an evaluation and go through life, never knowing why they have difficulties with academics and why they may be having problems in their jobs or in relationships with family and friends.

Generally speaking, people with learning disabilities are of average or above average intelligence. There often appears to be a gap between the individual's potential and actual achievement. This is why learning disabilities are referred to as "hidden disabilities". The person looks perfectly "normal" and seems to be a very bright and intelligent person, yet may be unable to demonstrate the skill level expected from someone of a similar age. Learning disabilities should not be confused with learning problems which are primarily the result of visual, hearing, or motor handicaps; of mental retardation; of emotional disturbance; or of environmental, cultural or economic disadvantages.

Learning disabilities look very different from one child to another. One child may struggle with reading and spelling, while another loves books but can't understand math. Still another child may have difficulty understanding what others are saying or communicating out loud. The problems are very different, but they are all learning disorders. It's not always easy to identify learning disabilities. Because of the wide variations, there is no single symptom or profile that you can look to as proof of a problem. However, some warning signs are more common than others at different ages. If you're aware of what they are, you'll be able to catch a learning disorder early and quickly take steps to get your child help.

A learning disability cannot be cured or fixed; it is a lifelong challenge. However, with appropriate support and intervention, people with learning disabilities can achieve success in school, at work, in relationships, and in the community.

Dyscalculia

A child's ability to do math will be affected differently by a language learning disability, or a visual disorder or a difficulty with sequencing, memory or organization. The first neuropsychological definition of dyscalculia was put forward by the researcher Kosc (1974), who defined it as a difficulty in mathematical performance resulting from impairment to those parts of the brain that are involved in mathematical processing, without a concurrent impairment in general mental function. This definition is the same definition that researchers in cognitive neuroscience use today when searching for the causes and features of dyscalculia. Dyscalculia, or mathematical learning disabilities, is a specific learning disability which affects around 6% of the population.

Individuals with dyscalculia are not unintelligent, but struggle to learn mathematics, despite having an adequate learning environment at home and at school. Dyscalculia is assumed to be due to a difference in brain function (Butterworth, 1999). Dyscalculia affects individuals over their life span. Children with dyscalculia fall behind early in primary school, and may develop anxiety or a strong dislike of math. In secondary school they are likely to struggle to pass math and science courses and find their career options reduced. In adult life,

they may earn less, and have difficulties managing their everyday finances.

There is a great deal of skills that could be impacted by a mathematics disorder. There could be deficits in linguistic skills, such as naming and understanding mathematical terms and decoding written problems into mathematical symbols. There could also be problems with perceptual skills, such as recognizing or reading numerical symbols and grouping objects together. There are issues with attention skills, such as copying figures and numbers correctly, as well as observing various operational signs (Butterworth & Yeo, 2004). Finally, there could be problems with basic mathematical skills such as counting objects and learning multiplication tables. It would not be uncommon for a person with Dyscalculia to estimate the size of normal room to be more than 100 feet tall

Symptoms Established By Research

Because there has been so little work on dyscalculia, there is no definite list of symptoms. Of course not all children may show all symptoms, and we know little about what symptoms remain in adolescence and adulthood (apart from the obvious of difficulty with mathematics). The following are seen in primary school, and well established by educational researchers (Geary, 1993):

1. Delay in counting and Lack of "number sense". Five to seven year-old dyscalculic children show less understanding of basic counting principles than their peers (e.g. that it doesn't matter which order objects are counted in). Dyscalculic children may have a fundamental difficulty in understanding quantity. They are slower at even very simple quantity tasks such as comparing two numbers (which is bigger, 7 or 9), and saying how many there are for groups of 1-3 objects. The brain areas which appear to be affected in dyscalculia are areas which are specialised to represent quantity.
2. Delay in using counting strategies for addition. Dyscalculic children tend to keep using inefficient strategies for calculating addition facts much longer than their peers. Less automatic processing of written numbers. In most of us, reading the symbol "7" immediately causes our sense of quantity to be accessed. In dyscalculic individuals this access appears to be slower and more effortful. Thus dyscalculic children may have difficulty in linking written or spoken numbers to the idea of quantity.
3. Difficulties in memorizing arithmetic facts. Dyscalculic children have great difficulty in memorizing simple addition, subtraction and multiplication facts (eg. 5 + 4 = 9), and this difficulty persists up to at least the age of thirteen.

There are a number of characteristics of Dyscalculia. The essential feature of this mathematics disorder is a deficit in mathematics ability, as measured by an individual standardized test involving calculation or reasoning. Dyscalculia includes a wide range of math difficulty such as problems with addition, multiplication, division, and abstract problems as well. Because those with this disorder do not understand the basic mathematical concepts, they do not remember and cannot build on them to master more complex problems. For example,

someone with Dyscalculia may have difficulty putting a group of ten numbers in order from lowest to highest.

The mathematical disturbance causes a significant interference with the person's academic functioning and achievement, as well as problems with his or her daily living that requires math skills. If the person also has a sensory deficit, such as problems with seeing or hearing, the difficulties with mathematical ability are in excess of those usually associated with it. The deficits in functioning could also produce feelings of anxiety and depression.

Many symptoms have been reported by teachers or special education workers, but haven't yet been studied in detail by researchers. The following are likely to be symptoms of dyscalculia:

1. Difficulty in imagining a mental number line
2. Particular difficulty with subtraction
3. Difficulty using finger counting (slow, inaccurate, unable to immediately recognise finger configurations)
4. Difficulty decomposing numbers (e.g. recognizing that 10 is made up of 4 and 6)
5. Difficulty understanding place value
6. Trouble learning and understanding reasoning methods and multi-step calculation procedures
7. Anxiety about or negative attitude towards math

They can also show the following symptoms:

- Shows difficulty understanding concepts of place value, and quantity, number lines, positive and negative value, carrying and borrowing
- Has difficulty understanding and doing word problems
- Has difficulty sequencing information or events
- Exhibits difficulty using steps involved in math operations
- Shows difficulty understanding fractions
- Is challenged making change and handling money
- Displays difficulty recognizing patterns when adding, subtracting, multiplying, or dividing
- Has difficulty putting language to math processes
- Has difficulty understanding concepts related to time such as days, weeks, months, seasons, quarters, etc.
- Exhibits difficulty organizing problems on the page, keeping numbers lined up, following through on long division problems

Type of Dyscalculia

According to the National Center for Learning Disabilities (http://ncld.org/types-learning-disabilities/dyscalculia/what-is-dyscalculia), there are various disabilities within the diagnosis of dyscalculia, although they tend to fall into two general categories: There are visual-spatial difficulties, meaning that the person has trouble processing what they see. These people may find it difficult to recognize patterns. There are language-processing difficulties, meaning that the person has trouble processing what they hear and may struggle with word problems or the language of math. Understanding the type of dyscalculia, whether it is visual-spatial or

language-processing, can be very helpful in selecting the strategies used to treat the disorder.

Another researcher, Geary (1993), has argued for three different subtypes of dyscalculia, one based on difficulties in fact retrieval (ie. learning simple addition sums, and times tables), one based on difficulties in learning procedures and strategies, and one based on visuo-spatial difficulties.

Real Causes of Dyscalculia

It is assumed that developmental dyscalculia is caused by the dysfunction of mathematical processes and areas in the brain. However, it is important to realise that the research establishing this is just in its infancy. The goal of cognitive neuroscience researchers is to fully develop a brain-based diagnosis usable from an early age, as well as brain-based prevention and remediation techniques. Firstly, research in the dyslexia field has now clearly shown an association with the under-functioning of brain areas in reading, that this is diagnosable from an early age, and that it can be remediated via auditory training programs. Secondly, research on genetic and developmental disorders associated with dyscalculia such as Turner's syndrome, Foetal Alcohol Syndrome, and low birth weight shows brain impairment in areas of the brain known to process mathematics (Isaacs, Edmonds, Lucas, & Gadian, 2001; Kopera-Frye, Dehaene, & Streissguth, 1996., Molko, Cachia, Riviere, Mangin, Bruandet, & Le Bihan, 2003).

Developmental dyscalculics also show difficulties on basic cognitive tasks known to activate these areas (Kopera-Frye, Dehaene, & Streissguth, 1996). Finally, research in the field of acquired dyscalculia (dyscalculia acquired as a result of brain injury) is in line with these findings; damage to the same area of the brain results in dyscalculia that has similarities to developmental dyscalculia (Stanescu-Cosson, Pinel, Moortele, Le Bihan, Cohen, & Dehaene, 2000). Under the right learning conditions, the brain has the ability to reorganize itself by forming new neural connections. These new connections facilitate skills like reading and writing that were difficult using the old connections.

Science has made great strides in understanding the inner workings of the brain, and one important discovery that brings new hope for learning disabilities and disorders is called neuroplasticity. Neuroplasticity refers to the brain's natural, lifelong ability to change. Throughout life, the brain is able to form new connections and generate new brain cells in response to experience and learning (Wilson & Dehaene, 2007). This knowledge has led to groundbreaking new treatments for learning disabilities that take advantage of the brain's ability to change. Innovative programs, use strategic brain exercises to identify and strengthen weak cognitive areas. For example, for children who have difficulty distinguishing between different sounds in a word, there are new computer-based learning programs that slow down the sounds so that children can understand them and gradually increase their speed of comprehension.

These discoveries about neuroplasticity provide hope to all students with learning disorders, and further research may lead to additional new treatments that target the actual causes of learning disabilities, rather

than simply offering coping strategies to compensate for weaknesses.

Dyscalculia Diagnosis

Because we do not yet have a way to diagnose dyscalculia based on its underlying cause, we have to diagnose it based on its effects, i.e. difficulties in mathematics. This is much more difficult, because there are other factors that may cause the same effects. In other words, there are many reasons for being bad at math. Reasons other than dyscalculia include inadequate instruction, lack of motivation, attention disorders, anxiety disorders, or mental retardation.

Methods of diagnosis differ widely, but in general include some common aspects: 1) an identification of a difficulty in mathematics that affects academic or everyday life, and 2) an attempt to rule out some of the other factors that could be responsible for the difficulty. If a child has persistent difficulties with mathematics, you should suspect dyscalculia, even if the child also has reading problems. You should have your child referred to a school psychologist for evaluation. Diagnosis should include interviews with you and your child, an IQ test, and mathematics achievement tests; as well as a more detailed examination of mathematics abilities (Wilson & Dehaene, 2007).

The kind of diagnosis that is carried out will vary depending on where you live and who you see. However, do not forget though that you have the right to be informed of results, and that you know your child best. Always ask for a second opinion if in doubt. You should be aware that dyscalculia is less well known than dyslexia, so this makes it hard to diagnose (Wilson & Dehaene, 2007).

Dyscalculia and "Math Anxiety"

"Math anxiety" is the name given to the feeling of tension and fear that some children and adults experience, and which is often specifically associated with mathematical activity (Ashcraft, 2002). There is very little research on the overlap between this and dyscalculia. It is a reasonable hypothesis that dyscalculia may increase the chances of having math anxiety, and preliminary work by Butterworth and Yeo (2004), based on focus groups of dyscalculic children, supports this idea. It is also possible that math anxiety could cause dyscalculia, although this is less likely.

The prevalence studies of dyscalculia

The percentage of the population suffering from developmental dyscalculia is difficult to establish, because of the different criteria used for diagnosis. However, the prevalence studies that have been conducted allow at least a rough idea. In these studies, prevalence is estimated to be between 3-6 percent of the population (Badian, 1999; Gross-Tsur G, Manor, & Shalev,., 1996).

Strategies to overcome Dyscalculia

Like other learning disabilities, the effects of discalculia can be treated. This will allow the person with dyscalculia to either learn the required math functions or to use other strategies to compensate for the difficulty they have grasping these concepts. The treatment for dyscalculia is to help the person to learn math effectively using various strategies. Identifying and understanding the areas of difficulty is the first step. Then,

specific strategies can be developed to help in learning, understanding, and retention.

Understanding how the student learns math is critically important. If a student is a visual learner (meaning they do not struggle with the visual/spatial aspects of math), using physical objects (manipulatives) can help as can color coding. If a child is an auditory learner (and does not struggle with language-processing difficulties), turning standard problems into word problems can be effective.

Since math skills build upon one another, it is important to start at the most basic level of counting, adding and subtracting. Once these skills have been mastered, move on to multiplication and division, and then to more complex skills. Start where the student is, not where he or she "should" be. We need to try several strategies for a given skill before something clicks and the student understands the skill. This is particularly true for those who struggle with language processing. We need to present the information in different ways until you find a way that makes sense to the student. Once you find a strategy that works, keep using it.

Practicing these skills is extremely important. Since people with dyscalculia have trouble understanding the concepts behind math functions, they must often practice far more than someone with a typical understanding of math. It may take considerably more repetitions of a problem type in order for someone with dyscalculia to "get it" and be able to move on to the next concept. It is often difficult for these children to generalize math concepts.

The following strategies will be very effective:

- Allow use of fingers and scratch paper
- Use diagrams and draw math concepts
- Provide peer assistance
- Suggest use of graph paper
- Suggest use of colored pencils to differentiate problems
- Work with manipulatives
- Draw pictures of word problems
- Use mnemonic devices to learn steps of a math concept
- Use rhythm and music to teach math facts and to set steps to a beat
- Schedule computer time for the student for drill and practice

As math concepts become more advanced in the upper elementary and middle school grades, the language can become more intimidating for students with language-processing dyscalculia. It is important to take the time to make sure that the student understands the language before they can understand the concept. Have the student help, providing illustrations or offering explanations. This will help their understanding as well.

Use graph paper to keep numbers properly aligned while doing multidigit multiplication or long division. Allow plenty of room for the student to write the calculations and the answer. Other strategies may become apparent as you work with your child, since there are many ways to learn. Once you find a strategy that works well with your child, try to think of ways that you can use that strategy to teach or reinforce other concepts. Share the strategies that are

effective for your child with your child's teachers. This will help to keep consistency between school and home, and it may reduce the frustration your child feels in math class. By sharing the strategies that you have learned and developed, you may help your child's teacher to help other children as well.

Conclusion

Dyscalculia is challenging and frustrating disorder and can be limiting if it is not addressed appropriately. But by working consistently with your child to understand, practice and apply the math concepts they will need to succeed in daily life, you can help your child overcome the challenges presented by this complex learning disability.

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RELATIONSHIP BETWEEN CREATIVITY AND PROBLEM-SOLVING SKILLS AMONG B.ED TRAINEES IN MYSORE

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Abstract

Human beings are endowed with creative power but the degree of possession of it varies from individual to individual. Creativity refers to the phenomenon whereby a person creates something new (a product, a solution, a work of art, a novel, a joke…etc) that has some kind of value (Aggarwal 2002). Problem solving is a mental process which is the concluding part of the larger problem process that includes problem finding, shaping and reaching towards a final goal. Reasoning or problem-solving is an attempt to make adjustments to a novel situation, to remove obstacles in the attainment of goals and to satisfy wants. Problem-solving consists of systematic observation, classification and interpretation. A problem is any situation where you have an opportunity to make a difference to make things better (Sharma 2006). There is a need to develop creativity in the trainees who in turn contribute for the development of the same among students who will become the future citizens of the country. This paper presents our attempt to study the relationship between creativity and problem-solving skills among B.Ed trainees in Mysore.

The results of the study indicate that the level of creativity among the B.Ed trainees is average, the level of problem-solving skills among the B.Ed trainees is average, there is significant positive relationship between creativity and problem-solving skills, there is no significant difference in the level of creativity between male and female B.Ed trainees, and there is no significant difference in the level of problem-solving skills between male and female B.Ed trainees.

Key Words: *B.Ed Trainees, Creativity, Problem-Solving Skill, etc.*

Introduction

Human beings are endowed with creative power but the degree of possession of it varies from individual to individual. Creativity refers to the phenomenon whereby a person creates something new (a product,

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a solution, a work of art, a novel, a joke…etc) that has some kind of value (Aggarwal, 2002). According to Bruner, "newness, surprise and originality are creativity". The scope and nature of creativity is unlimited and covers all fields and activities of human life. It includes composition of poems, stories, paintings, jewellery, hair style…etc. It becomes essential for the teachers as well as parents to realize the needs of providing proper environment and creating conditions to the total growth and development of the creative abilities of children.

Problem solving is a mental process which is the concluding part of the larger problem process that includes problem finding, shaping and reaching towards a final goal. Reasoning or problem-solving is an attempt to make adjustments to a novel situation, to remove obstacles in the attainment of goals and to satisfy wants. Problem-solving consists of systematic observation, classification and interpretation. A problem is any situation where you have an opportunity to make a difference to make things better (Sharma, 2006).

In every area of life, creativity and critical thinking are essential. These mutually supportive skills are intimately integrated in the problem-solving methods used in a wide range of "design fields" such as engineering, medicine, architecture, mathematics, music, art, literature, philosophy, history, business, athletics, law and science where the goal is to design a product, strategy or theory. Many problem situations which children have to face in a school may be resolved either individually or in groups. Teachers work with individuals or groups of varying sizes and sometimes the group has to take decisions.

Significance of the Study

Creativity has been considered to be very rare phenomenon blessed with divine inspiration that can be observed only in a few outstanding people. But as we find that every one of us is a unique creation thereby the degree of possession of creative ability is not uniform. Proper education, provisions of opportunities for creative expression, suitable stimulating condition provided by parents and teachers would make a significant contribution to creativity. Creativity in children should be identified, presented and nurtured by all means by parents and teachers. It needs to acquaint the teachers and parents with the actual meaning of creativity, the knowledge of the creative process and ways and means of developing creativity. Therefore there is a need to develop creativity in the trainees who in turn contribute for the development of the same among students who will become the future citizens of the country. From this point of view there is a need to lay more emphasis on identifying, preserving and nurturing creativity among the B.Ed trainees so as to make them aware of the significance of development of creativity among their children for the development of the country.

Objectives of the Study

The following are the objectives of the present study.

- To identify the existing degree of creativity (both verbal and non-verbal) of B.Ed trainees.
- To identify the existing levels of problem-solving skills of B.Ed trainees.
- To find out, if any, the significant relationship between creativity and problem-solving skills of B.Ed trainees.

- To compare the level of creativity between male and female B.Ed trainees.
- To compare the level of problem-solving skills between male and female B.Ed trainees.

Hypotheses of the Study

Based on the objectives, the following hypotheses have been framed.

1. The level of creativity among B.Ed trainees is not high.
2. The level of problem-solving skills among B.Ed trainees is not high.
3. There is no significant relationship between creativity and problem-solving skills of B.Ed trainees.
4. There is no significant difference in the level of creativity between male and female B.Ed trainees.
5. There is no significant difference in the level of problem-solving skills between male and female B.Ed trainees.

Research Methodology

The present study uses survey method of research (Garrett 2004). The methodological details like sample, tool, procedure of data collection, scoring procedure and statistical techniques are given below.

Sample

The sample of the present study consists of 160 B.Ed trainees studying in the private and aided colleges of Mysore City in the academic year 2013-2014. To draw the sample simple random sampling technique has been employed. The colleges have been selected on the basis of directions viz., north, south, east and west.

Tools Used

In order to collect information on the variables considered in the study, the following two tools were used. 1. Verbal and Non-verbal Test of Creative Thinking developed by Baquer Mehdi (1973). 2. PSAT developed by Sheela DOS in Education, University of Mysore (2002).

Data Collection

In order to assess the level of creativity and problem-solving ability of the B.Ed trainees the tools were distributed to them and administered faithfully in strict accordance with the direction provided in the manual for testing procedure.

Statistical Techniques Used

In order to analyse and interpret data percentage, simple arithmetic mean, product-moment correlation and 't' test were used.

Analysis and Interpretation of Data

For analysis and interpretation of data, the relevant input and analytical finding and inference derived have been presented in different tables and their discussion provided after each table.

Table 1
Percentage of level of Creativity among total sample

Creativity Level	Number of Trainees	Percentage
Low	16	10
Average	106	66.25
High	38	23.75
Total	160	100

According to the data obtained and presented in table – 1 it is revealed that among the total of 160 trainees 16 (10% of

total sample) belong to the low creativity group; 106 (66.25%) have average level of creativity and the remaining 38 (23.75%) belong to high creativity group. Since the majority of the students belong to average level of creativity, we accept the hypothesis – 1 that the level of creativity among B.Ed trainees in not high but average.

Table 2

Percentage of level of Problem-Solving Skills among total sample

Problem-Solving Skill	Number of Trainees	Percentage
Low	24	15
Average	96	60
High	40	25
Total	160	100

From the table – 2 it is observed that 24 (15% of total sample) belong to low problem solving group; 96 (60%) have average level of problem solving skill and 40 (25%) belong to high problem solving skill group. Since the majority of the students belong to average level of problem-solving skill, we accept the hypothesis – 2 that the level of problem-solving skill among B.Ed trainees in not high but average.

Table 3

Relationship between Creativity and Problem-Solving Skill of B.Ed Trainees

Sl. No	Variables	Df	'r'	Significant Level (0.05)
1	Creativity	158	0.741	Significant
2	Problem Solving Skill			

From table – 3 it is observed that there is a significant relationship between creativity and problem-solving skill at 0.05 level of significance. Hence the hypothesis – 3 that there is no significant relationship between creativity and problem-solving skills of B.Ed trainees is rejected.

Table 4

Mean, SD and 't' value for Creativity

Groups	Number	Mean	SD	't' value	Significant Level (0.05)
Male	80	319	42.44	1.205	NS
Female	80	320.25	58.33		

NS – Not Significant

Table – 4 shows that the mean scores of male and female are 319 and 320.25 with standard deviation of 42.44 and 58.33 respectively. The obtained t – value is 1.205 is less that the theoretical t – value 1.96 at 0.05 level of significance. Hence the hypothesis – 4 that there is no significant difference in the level of creativity between male and female B.Ed trainees is accepted.

Table 5

Mean, SD and 't' value for Problem-Solving Skills

Groups	Number	Mean	SD	't' value	Significant Level (0.05)
Male	80	49.33	10.48	1.905	NS
Female	80	53.91	13.39		

NS – Not Significant

Table – 5 shows that the mean scores of male and female are 49.33 and 53.91 with standard deviation of 10.48 and 13.39 respectively. The obtained t – value is 1.905 is less that the theoretical t – value 1.96 at 0.05 level of significance. Hence the hypothesis – 5 that there is no significant difference in the level of problem-solving skills between male and female B.Ed trainees is accepted.

Findings of the Study

1. The level of creativity among the B.Ed trainees is average.
2. The level of problem-solving skills among the B.Ed trainees is average.
3. There is significant positive relationship between creativity and problem-solving skills.
4. There is no significant difference in the level of creativity between male and female B.Ed trainees.
5. There is no significant difference in the level of problem-solving skills between male and female B.Ed trainees.

Educational Implications of the Study

Creativity is not inherited rather developed by the students. Providing suitable learning situation is necessary to boost divergent thinking and problem-solving skills. Teacher educators need to be creative in training courses to boost the creative levels of the trainees which would help in turn to develop the same among the school children. The present study reveals that creativity and problem-solving skills are inter-related and there is a positive correlation between the two. Teachers with low level creativity and problem solving skill should be exposed to situations and opportunities for divergent thinking and originality. Methods such as inquiry training, inductive method, synoptic models, problem-solving method…etc should be frequently used for independent thinking and problem-solving.

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DEVELOPMENT OF A TEST TO MEASURE INTERNET KNOWLEDGE OF COLLEGE STUDENTS

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Abstract

The network of communication satellites has enabled the fastest information transfer among all parts of the world, i.e. the Internet. The Internet, as a set of networks around the world, represents the biggest computer system which allows receiving, process and exchange of information to millions of computer users. A huge amount of data can be accessed at any time and any place allowing the user of the Internet a global access. The Internet technology has become an important source of information according to which various strategies of subjects in education field are formed. With the help of the Internet, a new possibility appeared for subjects in education field to successfully promote and sell services and products to comply with demands, needs and desires. So the investigators have decided to construct and validate a scale to measure the internet knowledge of the college students and succeeded in it

Key Words: *Internet knowledge, Computer networks, Hyper text based technology, Switched networks etc.*

Introduction

The Internet is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to link several billion devices worldwide. It is an international network of networks that consists of millions of private, public, academic, business, and government packet switched networks, linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries an extensive range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), the infrastructure to support email, and peer-to-peer networks for file sharing and telephony.

The origins of the Internet date back to research commissioned by the United States government in the 1960s to build robust, fault-tolerant communication via computer networks. While this work, together with work in the United Kingdom and France, led to important precursor networks, they were

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not the Internet. There is no consensus on the exact date when the modern Internet came into being, but sometime in the early to mid-1980s is considered reasonable. From that point, the network experienced decades of sustained exponential growth as generations of institutional, personal, and mobile computers were connected to it.

Internet Knowledge

The Internet is the sign of the ascendance of Mind in man. It is also an indicator of the subtle organization of existence, mirroring something even vaster — the spiritual consciousness that links and unites every living thing.

- Internet as Indicator of our Evolution
- Internet as Complex Form of Organization
- Internet as Subtle Entity
- Infinite Potential of Internet
- Support of Internet Development Miscellaneous
- Insights into the Nature of Technology

The Internet creates the greatest network of intelligent computing power the world has ever seen — the combined brainpower of all humanity — Traditionally power was concentrated in the hands of the few and wielded for personal benefit. The Internet discounts the power of wealth, reputation, prestige, expert knowledge and long experience. It enabled novice Wikipedia to break the near monopoly position of the 240 year old intellectual giant Encyclopedia Britannica by harnessing the collective knowledge and expertise of all humanity to create an encyclopedia five times larger in just six years. Grid computing can harness the unutilized processing capacity of millions of computers, exponentially exceeding the power of the world's fastest supercomputers. The Internet can harness the unutilized mental capacities of billions of people, exponentially exceeding the power of all the world's computers. The Internet enhances the value of the human being and increases the productivity of all social resources.

A means of connecting a computer to any other computer anywhere in the world via dedicated routers and servers. When two computers are connected over the Internet, they can send and receive all kinds of information such as text, graphics, voice, video, and computer programs. No one owns Internet, although several organizations the world over collaborate in its functioning and development. The high-speed, fiber-optic cables (called backbones) through which the bulk of the Internet data travels are owned by telephone companies in their respective countries.

The Internet grew out of the Advanced Research Projects Agency's Wide Area Network (then called ARPANET) established by the US Department Of Defense in 1960s for collaboration in military research among business and government laboratories. Later universities and other US institutions connected to it. This resulted in ARPANET growing beyond everyone's expectations and acquiring the name 'Internet.'

The development of hypertext based technology (called World Wide web, WWW, or just the Web) provided means of displaying text, graphics, and animations, and easy search and navigation tools that triggered Internet's explosive worldwide growth.

Development of the Scale

As there is no suitable scale available to study the college student's internet knowledge, the investigator has decided to construct and standardize a scale to measure the college student's internet knowledge. As the first step the investigator has collected variety of information regarding internet from various sources like website search, Journals, Books, experts in the field of computer science as subject in colleges and in universities. Its is of multiple choice questions (40).

Each item is set against three choices in which one of it was the correct one and score of 1 has been awarded to it and 0 has been awarded for the wrong answer. The scores in this test range from 0 to 40.

Pilot Study

This test of 40 items intended for the pilot study was administered to the sample of as many as 100 students studying in the colleges. Then their responses have been scored carefully and their marks were arranged in the descending order from the highest scorer to the lowest scorer. Then they were subjected to item analysis.

Item Analysis

The next step in the standardization of an internet knowledge test after Pilot study is to find out the index of difficulty and index of discrimination of each statement, which forms the basis for item selection in order to build up the final scale. The scale calls for a graded response to each statement as "CORRECT ANSWER" and " WRONG ANSER". The individual score for all the 100 students were found out and they were ranked from the highest to the lowest score. Then 25% of the subjects (High) with the highest total scores and 25% of the subjects (low) with the lowest total scores were sorted out for the purpose of item selection. The high and the low groups, thus selected, formed the criterion groups and each group was made up of 25 students (Edward.L.Allen,1957).

It may be recalled that each item possess three choices in the internet knowledge test. Then each item was taken individually and the number of students who answered correctly and wrongly was found out in both the high and low groups separately. Thus for all the 50 items, the number of students coming under each category was found out separately for both the high and the low group.

Table 1
Item Analysis For Internet Knowledge Test

Stmnt No.	Index of Difficulty	Index of Discrimination	Statements Selected
1	40	0.32	Selected
2	56	0.41	Selected
3	32	0.16	Not Selected
4	20	0.12	Not Selected
5	60	0.36	Selected
6	44	0.12	Not Selected
7	64	0.32	Selected
8	48	0.32	Selected
9	76	0.21	Not Selected
10	80	0.32	Not Selected
11	68	0.52	Selected
12	96	0.48	Selected
13	28	0.21	Not Selected
14	56	0.24	Not Selected
15	84	0.52	Selected

16	84	0.68	Selected
17	56	0.32	Selected
18	52	0.21	Not Selected
19	56	0.32	Selected
20	60	0.44	Selected
21	88	0.41	Selected
22	36	0.04	Not Selected
23	52	0.04	Not Selected
24	76	0.28	Not Selected
25	68	0.12	Not Selected
26	96	0.32	Selected
27	80	0.41	Selected
28	96	0.48	Selected
29	84	0.28	Not Selected
30	52	0.21	Not Selected
31	44	0.21	Not Selected
32	76	0.36	Selected
33	88	0.41	Selected
34	80	0.48	Selected
35	88	0.32	Selected
36	80	0.64	Selected
37	48	0.32	Not Selected
38	92	0.61	Selected
39	80	0.48	Selected
40	64	0.32	Selected

In the present study there are 25 subjects each in the high and low groups, the total number of subjects involved in the pilot study being 100. such of those items having the difficulty ranging from 10% to 90% and whose indices of discrimination ranging above 0.30 were selected. Thus 16 items were deleted on the above principle and only 24 items were retained in the final form of the internet knowledge test, (Table-1). Thus the final scale consists of only 24 Multiple Choice Questions.

Table 2

Scores and Interpretations of the levels of Knowledge

Scores	Interpretation
Upto 7	Low Level of Knowledge
Above 7 Upto 12	Average Level of Knowledge
Above 12	High Level of Knowledge

Validity

The internet knowledge test has construct validity the items were selected following rigid item analysis procedure described above. Its intrinsic validity was found to be 0.86.

Reliability

The reliability of this scale by split-half technique (Consistency) followed by the use of spearman-Brown prophecy formula was found to be 0.73.

Conclusion

Thus the investigators constructed and validated a Internet Knowledge Test (IKT) and contributed it to the field of education.

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BASIC SCIENCE PROCESS SKILLS AMONG SECONDARY SCHOOL STUDENTS

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Abstract

The National Curriculum frame work (NCF, 2000& 2005) outlined by NCERT strongly supports the constructivist and learner-centered approach in school education. But the extent to which the teaching of science and the learning of the subject is effective in imparting training of skills and acquisition of science process is in question. As the emphasis in teaching is shifted to the active process of investigation, the assessment of process skills should be integrated in to classroom teaching and assessment. The researcher feels that the present study will help to assess the Basic Science Process Skills developed by secondary school students through science learning. The main process skills selected for present study are basic process skill such as observation, classification and inferring. The Basic Science Process Skills provide a foundation for learning complex skills. The main objectives of the study are, to find out the level of process skill development among Students of Standard Nine and to find out the significance difference if any between the Means of the scores on Basic Science process skills among Students of Standard Nine with respect to gender and Medium of instruction. Survey method is selected for the study and the Process Skill Assessment Test was the tool administered to collect data. Major findings of the study are (a) Most of the students have moderate Basic Science Process Skills.(b) There is no significant difference in process skills among Boys and Girls.(c) There is significant difference in process skills among English medium and Malayalam medium students.(c) Most of the students are better in Observational skill among the Basic Science Process Skills.

Key words: *Process skills, Basic Science process skills, observation skill, classification skill, skill of inference, etc.*

According to science manpower project, "science is a cumulative and endless series of empirical observations which result in the formulation of concept and theories, with both concepts and theories being subjected to modification in the light of further

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empirical observations. Science is both a body of knowledge and a process of acquiring and refining knowledge"(Sharma, 1996). Therefore, it can be inferred that science is a body of knowledge and a continuous self-evaluative process of enquiry.

Science as a Process

The view of science as a process implies that science is the drawing out of inferences from interaction with experiences. The ways and means adopted by scientist in their pursuit of investigation is the process of science. Science is not a finished enterprise and there remains much to be discovered about the universe. In this aspect, the way of exploring truth is given more emphasis. The method adopted in science in the exploration of truth is unique and distinct from methods adopted by other subjects.

Process approach in science teaching

The process aspect of science is emphasized in teaching of science which is supported by psychological theories proposed by Piaget (cognitive constructivism), Vygotsky (social constructivism), Gardner (theory of multiple intelligence), etc. The process approach focuses on the learning theory of inquiry skills more than specific content (Gagne, 1967&Harlen, 1978). This approach encourages the students to generate meaning and knowledge from experience. It considers learners as active participants in the learning process.

Several projects were designed in the teaching of science taking in to account the objectives of process approach and anticipating integration of knowledge. Projects such as Nuffield Junior Science in Britain (Harlen,1978) and courses in chemistry such as Chemical Education Material Study (CHEM-Study),Chemical Bond Approach (CBA), and Science A Process Approach (SAPA) of the American Association for the Advancement of Science (AAAS) in the United States are a few along this direction (Pode,1966& SAPA,1966). These project emphasized processes of science such as observing, classifying, inferring rather than the content of science (Rajan, 2004).

It is a matter of debate among science educators that science process skills are acquired through science education as a byproduct or as a result of special training. Some research studies shows that, constructivist approach is effective in developing science process skills at different levels. The required skills for conducting a scientific inquiry or formulating a generalized idea in science are known as science process skills.

Science: A process approach (SAPA)

Science: A process approach (SAPA) is an experimental programme sponsored by the American Association for the Advancement of science (AAAS). The programme was developed by teams consisting of scientists and educators.

The basic assumptions underlying SAPA programme are:

1. Science can be taught to young children in a way that is faithfull to science as an intellectual approach to the world. For the SAPA programme, the primary implication is that children should learn, not to much the facts which are the

outcome of scientific investigation, as the process used by scientists. There are eight basic process and five integrated process contained in the programme.

2. Science is best learned by dong science. Hands-on learning is the way to go.
3. Lessons must take in to account the empirical findings of developmental psychology. In SAPA, this assumption is treated in a pragmatic way. If a particular lesson cannot meet the 90-90 standard of mastery learning, analysis of the lesson may indicate that the cause may lie in a developmental problem. Revision and rewriting and retesting will fill up the deficiency. The SAPA programme uses the insights of the behavior psychologist, Robert Gagne, as a functionary model in the programme design.

SAPA grouped process skills in to two types-basic and integrated. The basic (simpler) process skills provide a foundation for learning the integrated (more complex) skills. These skills are listed below.

Basic Science Process Skills

Process	Meaning
Observing	Using the five senses to gather information
Using space/ time relationships	Describing spatial relationships and their change with time
Classifying	Imposing order on collection of objects or events
Using numbers	Identifying the quantitative relationship in nature
Measuring	Measuring length, area, volume, weight, temperature, force and speed
Communicating	Expressing ideas with oral and written words, diagrams, graphs, mathematical equations and various kind of visual demonstrations.
Predicting	Making specific forecast of what a future observation will be
Inferring	An explanation of an observation

Integrated Process Skills

Process	Meaning
Controlling variables	Studying the influence of changing variables, the factors which influence one another
Interpreting data interpretations and the study of probability	Using data to make inferences, predictions and hypotheses, the statistical treatments given to such
Formulating hypothesis	Making generalized statements of explanation
Defining operationally	Defining terms in the context of experience
Experimenting	Larger process of using basic and integrated process

The process of investigations under SAPA begins in highly specific and concrete form and gradually generalizes by well planned exercises. The processes are used as guidelines for constructing sequence of instruction. There is progressive development in each process category. AS this development proceeds, the process turns to be increasingly interrelated, with corresponding development of other process. Thus we can summarize that the process are carefully analyzed in eight basic and five integrated processes.

Need and Significance of the Study

Science teaching in class room should be capable of inculcating science process skills among students. Science class should be busy with observation, classification, arranging apparatus and materials, measuring, organizing data, drawing inference, hypothesizing, designing simple experiments, testing hypothesis, identifying and controlling variables. Those activities which include, as much as possible process skills should be there in each lesson according to the nature of the topic.

As teachers, we are greatly interest to know how well our students are doing science or how much they are skilled in science processes. The new curriculum which is followed in our country is based on constructivism as a major theoretical backing. Constructivism is based on the belief that learners actively create, interpret and organize knowledge in their own way. Learner should participate in experience that accommodate inquiry activities, discovery, problem solving, collecting and interpreting information from different sources, expressing their understanding in diverse ways and applying and validating their understanding in new ways. It is constructivism that initiated learner centered approach in education. The national Curriculum frame work (NCF, 2000 & 2005) outlined by NCERT strongly support the constructivist and learner-centered approach in school education. But the extent to which the teaching of science and the learning of the subject is effective in imparting training of skills and acquisition of science process is in question. As the emphasis in teaching is shifted to the active process of investigation, the assessment of process skills should be integrated in to classroom teaching and assessment. The researcher feels that the present study will help to assess the Basic Science Process Skills developed by secondary school students through science learning. The main process skills selected for present study are Basic Science Process Skills such as observation, classification and inferring. The Basic Science Process Skills provide a foundation for learning complex skills. So the student should acquire Basic Science Process Skills. Through the present study the investigator tries to find out the basic process skill development of secondary school students. A detailed description of basic science process skill selected for the present study is given below.

1. The Observation Skill

This is the most fundamental Basic Process Skill of all the process. Observation may be defined as the gathering of information through the use of any one, or combination of the five basic senses: sight, hearing, touch, taste and smell. The term

observation may be used to express the result of observing. In other words one might observe and, as a result, gather observations. These observations can also be called data or facts. Observation should suggest objectivity as opposed to the expression of opinion. Skilled observers seem to proceeds from general perception of a system to more specific ones so the nature of skilled observing can be thought of as analytical. In summery observation is an objective process of gathering data through the use of one's senses applied in an analytical way.

2. The Classification Skill

Classification one of the main basic process skill is the process of grouping objects on the basis of observable traits. Objects that share a given characteristic can be said to belong to the same set. The process is somewhat arbitrary depending upon the identifying trait is selected. Skill of classification means ability to organize observation. Classify builds up on everyday efforts to organize but follows particular 'rules'. The only properties for classifying come from observations, not inferences. Standard practice is to divide groups in to two opposite categories. There is several method of classification. Perhaps the simplest method is a serial ordering. Objects are placed in to rank order based on some property. Two other methods of classifications are binary classification and multistage classification. In a binary classification a set of objects is simply dived in to two subsets. This is usually done on the basis of whether each object has or does not have a particular property. A multistage classification is constructed by performing consecutive binary classifications on a set of objects and then on each of the ensuing subsets.

3. The Inference skill

Unlike observations, which are direct evidence gathered about an object, inferences are explanations that follow from observations. When we are able to make inferences and explain events around us, we have a better appreciation of the environment around us. Often many different inferences can be made based on the same observations. Our inferences also may change as we make additional observations. We are generally more confident about our inferences when our observations fit well with our past experiences. We are also more confident about our inferences as we gather more and more supporting evidences. When students are trying to make inferences, they will often need to go back and make additional observations in order to become more confident in their inferences. The skill of inference comes from creative thinking. In science, inferences about how things work are continually constructed, modified, and even rejected based on new observations.

Grouping objects or events is a way of imposing order based on similarities, differences, and interrelationships. This is an important step towards a better understanding of the different objects and events in the world.

Process skill has many sided significance. It stimulates autonomous recognition of relationship, broadens background knowledge for current and future use, reinforces the skill and motivates the pupil towards self education.

As the educational process has now shifted to a process approach, it is essential to find acquisition of the Basic Science Process Skills which are the necessary attribute for the development of an individual in the scientific path of investigating things. The present study seems to be significant in this respect.

Objectives

1. To study the distribution of the scores on Basic science process skills among the Students of Standard Nine.
2. To find out the level of process skill development among Students of Standard Nine.
3. To find out the significance difference if any between the Means of the scores on Basic Science process skills among,
   A. Boys and Girls of Standard Nine of Kottayam district.
   B. English medium and Malayalam Students of Standard Nine of Kottayam district.
4. To find out the mean scores of components of Basic Science Process Skills.

Hypotheses

1. The distribution of Basic Science Process Skill development of Students of Standard Nine is approximately equal.
2. There is no significant difference in the Means of the scores on Basic Science process skills among Boys and Girls of Standard Nine of Kottayam district and English medium and Malayalam medium students.

Methodology

Normative survey method is adopted for the conduct of present study. The present study consists of sample of 109 Students of Standard Nine, randomly selected out of the total population in Kottayam District. Selection of sample is according to gender and medium of instruction. Observation, classification, inferring, are the main Basic Science Process Skills selected for the present study. The investigator used Science Process Skill Assessment Test. The assessment of each skill was done separately. Test I having 20 multiple choice questions were used to find out the classification skill, Test II having multiple choice questions were used to find out the inference skill and Test III having 20 multiple choice questions were used to find out the observational skill. All questions are based on the standard 9 physics and chemistry Text book.

The Process Skill Assessment Test (PSAT) was administered to selected samples. The students were given necessary instructions before allowing them to answer the questions. The meaning of terms and items which the student could not understand if any were explained to them. The scoring procedure was done according to the scoring key prepared by the investigator. The collected data was systematically classified and tabulated according to the formulated hypotheses.

Statistical Techniques

The following statistical techniques were employed for the analysis of data collection.

1. Mean
2. Standard deviation
3. 't' –test

Analysis and Interpretation

Table 1

Distribution of the scores of Basic Science Process Skills among students of standard Nine

Class interval	Frequency	Percentage
15-20	2	1.83
21-25	3	2.75
26-30	7	6.42
31-35	8	7.33
36-40	23	21.10
41-45	35	32.11
46-50	31	28.44
51-55	11	10.09
55-60	0	0
Total	109	100

The first objective was to find out the distribution of Basic Science Process Skills among the standard nine students. From the table values it is interpreted that highest number of students fall in the class interval of 41-45. 32% students got this score. The tables show that the scores are accumulated towards the central scores. Only 1.83% belongs to class interval 15-20 and no samples found in the class interval 55-60. This shows that the process skills are normally distributed among the samples

Table 2

Classification of total sample of students based on their Basic Science Process Skills.

Level of process skills	Range	No: of students	Percentage
High process skills	49.29	20	18.34
Moderate process skills	Between 49.29 and 33.87	73	66.97
Low process skills	33.87	16	14.67
	Total	109	100

The second objective was to find out the level of process skill development among Students of Standard Nine. The investigator classified the whole sample based on the scores obtained in the tool selected Process Skill Assessment Test (PSAT). The classification is as follows. By using the Mean and standard deviation of the scores it is easy to classify the students according to their basic process skill. Majority of students have moderate process skills. Only 18.34% of students have high process skills. About 14.67% of students have low process skills.

Table 3
Basic Science Process Skills among Students of Standard Nine with respect to Gender.

Variables	Category	N	Mean	S.D	t-value	Remarks
Basic Science Process Skills (Observation, classification, inference)	Boys	53	41.3962	7.50	0.238	
	Girls	56	41.7500	7.96		Not significant at .05 level

Table 4
Basic Science Process Skills among Students of Standard Nine with respect to medium of instruction

Variables	Category	N	Mean	S.D	t-value	Remarks
Basic Science Process Skills (Observation, classification, inference)	English medium	69	43.7101	6.50362	4.054	
	Malayalam medium	40	37.9000	8.30446		Significant at .05 level

The third objective was to find out the significance difference in the process skills of Students of Standard Nine based on Gender and Medium of instruction. The investigator used inferential statistics to find out the significant difference between the mean scores of the variables. It is clear from the table 3 that the t-value is less than 1.96 at 0.05 level of significance. It shows that there is no significant difference in process skills between the Boys and Girls of standard Nine. The null hypotheses accepted. The mean scores on process skills among Boys and Girls are more over same.

Table 4 shows that the t-value 4.054 is greater than 1.96 at 0.05 level of significance. It shows that the mean scores on the process skills among English medium and Malayalam medium Students of Standard Nine differs significantly. The null hypothesis formed is rejected. The investigator concludes that there exists significance difference between English medium and Malayalam medium Students of Standard Nine in the process skill development. The mean scores on process skills among English medium students is 43.71 and Malayalam medium students is 37.9. So the English medium students having good process skills than that of Malayalam medium students.

Table 5

Mean scores of the components of Basic Science Process Skills (classification, Inference, Observation)

Components of Basic Science Process Skills	S.D	Mean
Classification	3.29	11.91
Inference	2.92	14.01
Observation	2.98	15.65

The fourth objective was to find out the mean scores of observational, classification and inferential skill of Students of Standard Nine.

From the table 5 it is clear that the mean scores of Observational skill are higher than that of Classification skill and skill of inference. Most of the students are better in their Observational skill than the other two skills.

Major findings of the study

1. The distribution of Basic Science Process Skills among students is normally distributed.
2. Most of the students have moderate Basic Science Process Skills.
3. There is no significant difference in Basic Science Process Skills among Boys and Girls.
4. There is significant difference in Basic Science process skills among English medium and Malayalam medium students.
5. Most of the students are better in Observational skill among the Basic Science Process Skills.

Conclusion

The acquisition of Basic Science Process Skills (simple skills) act as the foundation for integrated process skills (complex skills).When students focus on the process of inquiry, they develop the ability to ask questions, define problems, investigate the world around them and use their observations to construct reasonable explanations for the problem. Inquiry is a terminal thinking process in which the students have to actively engage in, after passing through the necessary prerequisites for conducting it. Therefore it should be attained in the context of teaching and learning conditions which include discovery from the part of the learner. The teacher should ensure the active engagement of pupils throughout the activities in the science classroom through constructivist approach. Then only the process skill develops and processes are essential part of students' learning experiences so that they can learn and practice the methodology of Science.

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CHALLENGES OF EFFECTIVE IMPLEMENTATION OF BUSINESS STUDIES CURRICULUM IN ENUGU STATE SECONDARY SCHOOLS, NIGERIA

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Abstract

The study investigated the challenges of effective implementation of business studies curriculum in Enugu State Secondary Schools. Business studies curriculum is not fully implemented in Enugu State, giving rise to students' poor performance and poor attitude towards the subject. Three research questions guided the study. The population for the study was two hundred and thirty five (235) Business Studies Teachers. The instrument for data collection was questionnaire. The instrument was validated by experts. The data collected were analyzed using mean and standard deviation to answer the research questions. It was found that the major challenges facing the effective implementation were inadequate and qualified business studies teachers, poor funding, class size, poor attitude, school location, methods of teaching and integrated nature of the subject among others. Based on the findings, recommendations were made to include that the government should employ more qualified business studies teachers, regular workshops and seminars should be organized for these teachers to improve their attitudes towards business studies and methods of teaching the subject.

Key Words: *Business Studies, Implementation, Curriculum Challenges, etc.*

Introduction

National Policy on Education (NPE) (2004), states that education in Nigeria is an instrument "per excellence" for effecting national development. Education according to Eya (2012) is a process of developing individuals in a given society to acquire appropriate knowledge, skills, attitudes, aptitudes and competencies in order to live useful life and contribute to the progress of such a society in all its ramifications. Education is the bedrock for any meaningful development in any nation.

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To educate is to teach as well as to inculcate desirable values to the learner. The information which the learner requires is contained in various subjects of instruction taught in the school. Each subject has a specific lesson to teach the learner. This is because the content of each subject is carefully selected and arranged in such a way that it will bring about the positive changes in the learner. The content of each subject and other experiences a learner goes through in the course of his/her studies in the school is referred to as curriculum.

Curriculum has been defined by different authors thus: Eya (2012) defined curriculum as all the learning experiences provided for the learner by the school for achievement of predetermined goal. Oliva in Oteh and Akuma (2011) sums up several interpretations of curriculum and listed them as follows:

- that which is taught in school;
- a set of subjects;
- a programme of studies;
- a sequence of courses;
- everything that goes on within the school, including extra-class activities, guidance and interpersonal relationships; and
- a series of experiences undergone by learners in a school.

The definitions variously present curriculum as planned learning, subject or courses, intended learning outcomes, and educational experiences. No matter how curriculum is defined, it is central to education. Curriculum is the vehicle through which educational objectives are achieved and so, effective implementation should be ensured if educational objectives are to be achieved.

Curriculum implementation is the translation of curriculum document into practice. Cornbleth (1990) reiterates that curriculum implementation is actually a practical/instructional phase. The class room efforts of the teacher and learner in putting curriculum document into operation is equally curriculum implementation,. It is a stage when in the midst of learning activities, the teacher and the learner are involved in negotiations aimed at promoting learning. Collins (2005) feels that curriculum implementation is a complete network of various activities involved in translating plans and contents of the curriculum into classroom interaction/instructions. He further points out that such actions will change students' attitude to accept these activities and participate effectively in classroom instructions, if it is effectively implemented. In implementing the curriculum, teachers' and learners' roles complement and reinforce one another; it is so in the sense that the methods, strategies and resources selected and adopted for a lesson effectively stimulate learners' interaction and collaboration from which learning ensures. This implies that unless the teacher who is the actual implementer of the curriculum takes the right decisions vis a vis resources, methods and activities in the course of implementing the curriculum, the knowledge, values and competencies couched in the lesson's objectives will not be achieved.

Nanssy Malsbury and Tonne (1977) defined business education as that aspect of the total education programme that provides the knowledge, skills, understanding and attitudes needed to perform in the business world as a producer and/or consumer of

goods and services that business offers. Business education plays an important role in the economic growth and development of any nation. Business Studies is a prevocational subject in Group B under pre-vocational electives of the National Policy on Education (NPE) (2004). Business Studies comprises typewriting, shorthand, commerce, book-keeping and office practice.

Igboke (2005) identified the following as the general objectives of Business Studies:

- To enable the students acquire the basic knowledge of business studies.
- To develop basic skills in office operations.
- To prepare students for further training in business studies.
- To provide orientation and basic skill with which to start a life of work for those who may undergo further training.
- To provide basic skills for personal use in future.
- To relate the knowledge and skills to national economy.

Business Studies was introduced in Nigerian Schools mainly to provide students with the training that will make them ready for world of work as well as provide opportunities for further education. In order to ensure adequate preparation of individuals for the world of work, the curriculum to be taught consisted of "both prevocational and academic disciplines" (NPE, 2004). Business Studies is a foundation subject that prepares the students with basic knowledge of shorthand, typewriting, commerce, book-keeping and office practice (Azih, 2008). If the curriculum of Business Studies is effectively implemented, the students should be equipped with enough knowledge ready to perform in the world of work or to continue in their further studies.

Statement of the Problem

Business Studies was introduced in the Nigerian education system in 1977. The main reason is to prepare students to function intelligently in the world of work and to also meet their entry level employment needs in the competitive world. However, the putting into operation of the curriculum of business studies in secondary schools in Enugu State schools is not as it ought to be. Azih (2008) is of the view that the rising cases of poor performance of students in Business Studies call for a need to question the quality of knowledge acquired by students when they study business studies. If the situation is left unattended to, the poor performance of students, poor teacher quality/quantity, inappropriate methods of teaching and ineffective implementation of other aspects of Business Studies curriculum will continue. Hence, the problem of this study is to investigate the challenges of effective implementation of Business Studies curriculum in Enugu State Secondary Schools.

Purpose of the Study

The main purpose of this study is to find out the challenges militating against effective implementation of Business Studies curriculum.

Research Questions

The following research questions were formulated to guide the study:

1. To what extent does teacher based factors such as quality and quantity

constitute a challenge to effective implementation of Business Studies curriculum?

2. How does government based factors such as funding and policy bring about challenges to effective implementation of Business Studies Curriculum?
3. To what extent do students based factors such as attitude, affect effective implementation of Business Studies curriculum?

Methodology

The population of the study consisted of all the Business Studies teachers in Enugu State Secondary Schools numbering two hundred and thirty-five (235) teachers. The researcher used simple random sampling technique to select eighty (80) Business Studies teachers from the six (6) educational zones of the State. This sample represents thirty-four percent (34%) of the entire Business Studies Teachers in Enugu State.

Instrument for Data Collection

The main instrument for data collection was structured questionnaire constructed by the researcher. The questionnaire was validated by three experts, two in business education and one from measurement and evaluation. It is made up of two sections: Section A has information on demographic variables while Section B contains information on the research questions. The questionnaire is structured on a 4-point Likert scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

The data collected was analysized using statistical mean. Any mean result that is up to 2.50 and above is accepted as agreed, while any result below 2.50 is rejected and disagreed.

Significance of the Study

It is expected that the findings of this study would be of great significance to business studies teachers who are the implementers of the business studies curriculum. The finding will help the teachers to adopt appropriate teaching methods for effective teaching and learning of Business Studies. Their attitudes towards the subject should be positive. The teachers should see the need to improve themselves academically by attending workshops, conferences and in-service training in business education and vocational education in general.

The government and curriculum planners will use the findings to improve on the quality and quantity of teachers employed to teach business studies in the State. The funding of business studies will also be improved upon, the equipment and machines necessary for effective implementation of the curriculum would be provided.

The findings will also be of great benefit to the students because they will have positive attitude towards the subject. Their misconception about the subject will be corrected.

Results and Discussions

Research Question 1

To what extent does teacher based factors constitute challenges to effective implementation of Business Studies Curriculum?

Table 1

Mean ratings of Teachers on the challenges of teacher based factors on the effective implementation of Business Studies Curriculum in Enugu State.

N = 80

S/No.	ITEMS	SA	A	D	SD	x	D
1.	Poor qualifications of Business Studies Teachers constitute challenges to effective implementation of Business Studies Curriculum.	100	84	40	7	2.88	A
2.	Inappropriate methods of teaching used by Business Studies Teachers.	124	81	20	12	2.96	A
3.	Poor attitude of Business Studies Teachers towards their course constitute challenges.	120	60	22	19	2.76	A
4.	Gender of the Business Studies Teachers pose challenges.	80	60	62	9	2.63	A
5.	Most of the Business Studies Teachers do not apply methods that cater for individual differences.	100	80	60	15	3.18	SA
6.	Teachers of other disciplines implementing Business Studies curriculum constitute challenges.	204	72	10	1	3.59	SA
7.	Business Studies Teachers are overloaded with other assignments that affect effective implementation.	240	30	8	6	3.55	SA
8.	Business Studies Teachers do not attend seminars, workshop and conferences to enhance their professional competencies.	216	39	22	2	3.48	SA
9.	Most Business Studies Teachers do not use instructional materials in teaching.	132	84	20	9	3.06	SA
Grand Mean						**3.12**	**SA**

From Table I above, the respondents strongly agreed that most Business Studies teachers do not apply teaching methods that cater for individual differences, teachers of other disciplines implement Business Studies Curriculum and that they are saddled with other school assignments that affect their effective implementation of the Business Studies Curriculum. They also strongly agreed that they do not attend seminars, workshops and conferences to enhance their professional competences. They equally agree that they do not use relevant instructional materials in teaching. All these are challenges to effective implementation of Business Studies Curriculum in Enugu State.

Research Question 2

How does government based factors bring about challenges in effective implementation of Business Studies Curriculum in Enugu State?

Table 2

Mean Ratings of Teachers on the challenges of government based factors on the effective implementation of Business Studies Curriculum in Enugu State.

S/No.	ITEMS	SA	A	D	SD	x	D
10.	Inadequate number of Business Studies Teachers in Schools in the State.	200	60	14	3	3.46	SA
11.	Poor funding of Education in the Country is a big challenge facing effective implementation of Curriculum.	200	24	2	1	3.83	SA
12.	Ineffective policies and non-enforcement of these education policies.	152	45	2	1	3.75	SA
13.	Irregular supervision of Secondary Schools is another challenge.	244	39	6	3	3.65	SA
14.	Frequent and punitive transfers of Business Studies Teachers is a challenge.	172	63	20	6	3.26	SA
15.	School locations either in the rural or urban areas	160	90	8	6	3.30	SA
16.	The big volume of the Business Studies curriculum is also a challenge.	260	30	6	2	3.72	SA
17.	Paucity of Business Studies textbook.	128	75	40	3	3.07	SA
18.	Non-availability of funds for the provision of instructional materials and other necessary facilities.	124	60	40	9	2.91	A
19.	Irregular payment of teachers salaries	60	51	62	17	2.37	D
20.	Misappropriation of school funds	84	66	40	17	2.58	A
21.	Inability to keep accurate financial records	76	60	42	20	2.47	A
22.	Embezzlement of School funds	126	63	52	9	3.47	SA
	Grand Mean					**3.19**	**SA**

Table 2 above shows that the Business Studies teachers identified and strongly agreed with all the twelve items on the government based factors challenging the effective implementation of Business Studies curriculum. It is interesting to note that their salaries are paid regularly and does not constitute a challenge to effective implementation of the curriculum. From the researcher's interaction with some of the teachers, they said that even though the amount paid may not be the highest but they are regularly paid their monthly salaries and other allowances.

Research Question 3

To what extent do students' based factors affect effective implementation of Business Studies curriculum in Enugu State?

Table 3

Mean Ratings of Teachers on the challenges of students' based factors on the effective implementation of Business Studies curriculum in Enugu State.

S/No.	ITEMS	SA	A	D	SD	x	D
23.	Students poor attitude to education generally constitute a challenge to effective implementation to Business Studies curriculum	300	9	2	1	3.90	SA
24.	Students poor performances in Business Studies	276	15	8	2	3.76	SA
25.	Parents nonchalant attitudes to their children's education constitute a challenge.	256	30	6	1	3.66	SA
26.	Non-devotion of enough time to the study of Business Studies is a challenge to effective implementation.	212	45	20	2	3.48	SA
27.	Discouragement students receive from their peers on the importance of Business Studies	92	72	40	13	2.71	A
28.	Students' truancy in Business Studies class in schools is another big challenge to effective implementation of Business Studies curriculum	168	60	16	10	3.17	SD
29.	Students' poor perception of Business Studies is a serious challenge to effective implementation of Business Studies curriculum in Enugu State.	144	72	26	7	3.11	SD
	Grand Mean					**3.34**	**SD**

From Table 3 above, the respondents strongly agreed on all the seven items of students' based factors as challenges seriously affecting the effective implementation of Business Studies curriculum in Enugu State secondary schools. The least among the items is discouragements students receive from their fellow students on the importance of Business Studies with a mean of 2.71 while the most critical is students' poor attitude towards the subject with a mean of 3.90. The grand mean is 3.34 which is quite high.

Conclusion

Business Studies is a pre-vocational subject designed to equip the students with necessary skills, aptitudes, knowledge and competencies to function as an intelligent consumers of goods and services which business offers and to fit into the world of work. Based on the forgoing the following conclusions were reached.

- Most of the teachers are not qualified, lack appropriate teaching pedagogy and

have negative attitude towards the subject. Some teachers who are not business educators also teach business studies due to inadequate business studies teachers and the competencies of such teachers in implementing the curriculum are questionable. These teachers do not attend conferences, workshops or even in-service training to enhance their professional competencies.

- Government factors affect the effective implementation of Business Studies curriculum. Most of the schools are not equipped with the necessary equipment and machines that facilitate effective implementation. Inadequate fund is also a constraint to effective implementation.
- Students have negative attitude towards business studies and this affect their performance.

Recommendation

The following recommendations were made based on the findings of the study.

Recruitment of business studies teachers should be based on their qualification. Holders of Nigeria Certificate of Education (NCE) and graduates of business education should be recruited instead of employing graduates on related areas. Business studies studios should be properly equipped with all the necessary equipment and machines to facilitate practical for effective teaching and learning. An attendant or laboratory technologist should also be recruited to ensure effective maintenance of the available facilities.

Training and retraining programme should be organized for business studies teachers. There should be regular workshops, conferences and seminars for teachers to keep them abreast with current emphasis on vocational education. This training would enable these teachers to acquire the necessary skills needed to teach all the areas of business studies. The government should also encourage teachers to enroll for degree programmes in the area so as to acquire higher and professional qualifications.

Technical Teachers Training Programme (TTTP) should be sustained and extended to business education. This is to improve the image of the subject and the attitude of the students. Students specializing in business studies should be sponsored by the government to motivate them.

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MORAL ANXIETY AND RELIGIOUS ATTITUDE OF SECONDARY SCHOOL STUDENTS

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Abstract

The aim of education is to develop broad mindedness and universal outlook in the students with the right wisdom. The education system must impart values in students such as tolerance, patience, understanding, truthfulness, gratitude, faith in God, self respect and also in the education at should raise it perspective the humanity and acquire the value of brotherhood, mercy, love etc.The investigation was an attempt to study the religious attitude and moral anxiety of the secondary school students. It is observed that there is no relationship between religious attitude and moral anxiety of the secondary school students. In this study the sample of be 300 students from secondary school in kannur district, Kerala were tested using Religious attitude scale and morale anxiety. The information were collected, the data were statistically treated, analyzed, interpreted, discussed and concluded.

Key Words: *Religious Attitude, Moral Anxiety, Concrete experience, Faith, Worship, etc.*

Introduction

Education should bring about a change in any individual for the betterment of the society. Individuals in the society are involved in various related activities linked to the individual, family and society. He is forced to voice his opinions and develop his own likes and dislikes. His experience in different situations provides him with a set of moral values and attitudes. The building up of person's character is closely related to moral anxiety.

Generally in our society, the moral anxiety can be perceived in the people with various attitudes. Those who are inclined in the path of religion are found to be morally anxious most of the time. The subjective introspection may be continuously occurring in their religious path. Positive or negative responses of religious concepts are prevention of character faith in God, prayer and worship are some of the religious attitudes.

Religious beliefs and practices have been a universal feature of human society. Religion may be defined as man's belief in supernatural forces outside himself, which forces, he is convinced, influence human events. As a concrete experience religion is

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accompanied by emotions, especially of fear, awe or reverence. The objective or scientific study of the religious life had seemed to many a contradiction in terms, a mere act of violence on the part of scientist towards a sphere of life he does not understand.

Dr.Radhakrishnan (1948) "Religion is not the acceptance of academic abstractions or the celebrations of ceremonies but kind of life and experience. It is an insight into the nature of reality or experience of reality.In this book 'Religion and Society' points out that:"Religion is necessary to educated man and helps him to rise above his baseness and work upwards"(1952).He also quoted "Religion is an attitude which gives meaning and unity to existence and it is not asset of dogmas to be universally accepted"(1956).

The attitude towards the religion is a positive or negative evaluations, emotional feelings, and action tendencies towards particular religions with respect to social objects. It is a favorable or unfavorable response involving some kind of actions inherently or overtly towards God.

Anxiety is often described as having cognitive, somatic, emotional, and behavioral components (Seligman, Walker$Rosenhan, 2001).Anxiety can be somewhat of a mental illness. While some philosophers, psychologists and evolutionary biologists hold that morality is a thin crust hiding egoism, amorality, and anti social tendencies, others see morality as equally a product of evolutionary forces and as evidence for continuity with other group living organisms. One approach argues that moral codes are founded on emotional instincts and intuitions that were naturally selected in the past because they aided survival and reproduction (inclusive fitness) and that they still generally prescribe behavior that enhances individual fitness and/or group well-being. Selected psychological and behavioral tendencies, and their abstraction in to moral codes or religious, are seen to be common to most or all human cultures.

Need and Significance

According to Gandhiji, for the all-round development of the child, education should provide the right understanding about attitude and morality among the students. Particularly during the adolescent age, the maturity level usually develops and awareness about morality and religious values also begins to emerge. It is also evident that during this stage, lot of anxiety and stress is revealed. This could be due to the lack of understanding about morality. For the purpose of getting more insight into this concept there is a need to study the moral anxiety and religious attitude of students at the secondary school level.

If clarity of the various aspects related to the moral anxiety and religious attitude is unearthed, students at the secondary level can be helped to develop the right level of moral anxiety and also a positive religious attitude.

Objectives of the study

1. To find out the level of Religious attitude of secondary school students.
2. To find out the level of moral anxiety of secondary school students.
3. To find out the Relationship between religious attitude and moral anxiety of secondary school students.

Hypotheses

1. The level of religious attitude of secondary school students is neutral.
2. The level of moral anxiety of secondary school students is average in nature.
3. There is no significant relationship between the religious attitude and moral anxiety among the secondary school students.

Variables of the Study

In the present study the variables are

Religious attitude

Moral Anxiety

The investigator defines religious attitude as attitude towards religion and its concepts in students. Religious attitude in this study refers to the scores obtained by using the Religious Attitude scale designed by Rajamanickam (1966).This study refers to the 'anxiety towards morality' in students. By this, the investigator means the scores obtained by administrating the scale of Moral Anxiety standardized by Lawrence R.Good and Katherine C.Good.

Tools selected for the study

The tools used for this study are:

1. Religious attitude scale by Rajamanickam,M.
2. Moral anxiety scale by Lawrence R.Good and Katherine,C.

Sample for the study

In the present study the investigator used the stratified random sampling technique. The samples selected for the study were secondary school students from Kannur District in Kerala. The size of sample was 300 students, taken from six schools in Kannur District of Kerala.

Statistical Techniques used in the study

In the present study, following statistical techniques were used like, Mean, Standard Deviation, Correlation, etc.

Results and Discussions

Hypothesis-1

The level of religious attitude of secondary school students is neutral in nature.

Table 1

The level of Religious Attitude among the Secondary School Students

Variables	Level	Number	Percentage
Religious Attitude	Moderately pro-religious	60	20
	Neutral	216	72
	Moderately Anti-religious	24	8
	Total	300	100

From the above table it is clear that the level of religious attitude among Secondary School Students is neutral in nature and the hypothesis is accepted.

Hypothesis-2

The level of Moral Anxiety of secondary school students is neutral in nature.

Table 2

The level of Moral Anxiety among the Secondary School Students.

Variables	Level	Number	Percentage
Moral Anxiety	Average	172	57.33
	High	128	42.67
	Total	300	100

From the above table it is clear that the level of moral anxiety among Secondary School Students is average in nature and the hypothesis is accepted.

Hypothesis

There is no significant relationship between the religious attitude and moral anxiety among the secondary school students

Table 3

The Correlation among religious attitude and moral anxiety

Variables	Number of students	Correlation	L.S
Religious Attitude Moral Anxiety	300	.04	N.S

From the above table it is clear that there is no significant relationship among Religious attitude and Moral anxiety. Therefore the above hypothesis is accepted.

The analysis and interpretation of data reveals that the religious attitude of secondary school students is found to be the neutral category and fall in the average group with regard to moral anxiety. There is no significant relationship between Religious attitude and Moral anxietyamoung the secondary school students. The study also observes that the students do not have sufficient knowledge about any aspect of the religion they belive.When they grow old the same attitude to religion is carried by them, thus resulting in lack of building moral values and religious faith.

Conclusion

Good citizens contribute to the primary aims of education to bring about a change and get them to be realized and envisaged in the long run. Moral anxiety is a progressive and positive level in the human life towards attaining spiritual development. Morality is the beginning for entry into any religious group. At the same time by religious path on can enter in the goal of spiritual attainment. So education should give clarity to the students about the need for moral values and religious faith. Education should provide a proper understanding about every individual's life goal in relation to material and spiritual aspects. Well-conducted classes on Religious or moral instructions could help students to become tolerant and respectful towards others. Education also provides opportunity to raise subjective moral questions regarding behavior of their own self or others. Such type of introspective questions and moral anxiety in behavior is seen in students, especially at the adolescent period.

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LAPSES IN KNOWLEDGE DISSEMINATION AND QUALITY ASSURANCE IN TEACHER PREPARATION AS IMPEDIMENTS TO EFFECTIVE SECONDARY EDUCATION IN NIGERIA

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Abstract

Teacher preparation is a crucial area of tertiary education for purposeful knowledge generation and dissemination through research activities and quality instructional delivery at all levels in every nation. This study examined the lapses in knowledge dissemination and quality assurance in teacher preparation as impediments to effective secondary education in Nigeria. The study employed the survey research design, using respondents from Faculties and Institutes or Schools of Education of public Universities. Three research questions and two hypotheses guided the study. An instrument called Teacher Preparation Questionnaire (TPQ) was developed for data collection. Research questions were answered using descriptive statistics while the hypotheses were tested at 0.05 P level using inferential statistics. The results of the study showed that several institutions that prepare teachers for secondary education lack adequate trained personnel and research activities. Some lecturers are not computer literate and hardly use ICT facilities except their obsolete lecture notes thereby pushing many students into examination fraud and lowering the standard of secondary education. The results therefore, have far reaching implications for the preparation of trainee teachers who ought to be groomed in the use of modern approaches through the integration of Open Education Resources (OER) and ICT in research and knowledge dissemination. The study recommended adequate provision of teaching staff and facilities and regular training and re-training of lecturers in modern pedagogical skills through conferences and workshops.

Keywords: *Teachers, knowledge dissemination, quality assurance, etc.*

Introduction

One of the cardinal aims of tertiary education all over the world is to make preparation for societal survival through manpower development in all sectors of the economy (Ivowi, 2004). In the education

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sector for instance, the Federal Republic of Nigeria, FRN (2004) states that to provide the manpower needs at all levels, teacher preparation should be given the required professional attention it deserves. Hence, the Faculties of Education and Colleges of Education are saddled with mass production of fresh teachers for secondary and primary levels of education respectively. The National Teachers' Institute (NTI) and the School of Education (National Open University of Nigeria, NOUN) also prepare teachers massively through open and distance learning while National Institute for Nigerian Languages (NINLAN), National Mathematical Centre (NMC) and Institutes of Education in Nigerian conventional universities engage in retraining of teachers. The Schools of Education in Polytechnics train technical teachers at Diploma and Certificate levels.

Teacher preparation at university level is for a period of four years for a degree programme while Colleges of Education prepare the middle level teachers in three years for the award of Nigeria Certificate in Education (NCE) (Nwokeocha, 2013). In addition, university and polytechnic graduates in other fields outside education who wish to become professional teachers are trained for one year to obtain Postgraduate Diploma in Education (PGDE). The FRN (2004) further stipulates that university lecturers in other fields irrespective of their status should obtain the PGDE to enable them become professional teachers at tertiary level of education.

In pursuance of the UNESCO's Education for All programme as ratified and launched in Jomtien, Thailand in 1990 by all member nations (Shukla, 2005), the Federal Government of Nigeria states that every Nigerian should have access to quality basic education up to university level. This led to a monumental pressure on existing institutions to accommodate applicants at all levels and significant demand for teachers to cater for the increasing and overwhelming number of pupils and students especially at primary and secondary education levels respectively. The universities were not spared either as the number of students admitted to pursue first degree in education increased from 23,325 in 2008/2009 academic session to 50,045 in 2009/2010 academic session (Nwokeocha, 2013).

Conceptual Framework

Teacher preparation is a form of teacher education for professional development of the teacher (Nwokeocha, 2013). According to Obanya (2007), teacher preparation involves overall development of a person through genuine education programmein order to learn skills, acquire specialized knowledge, reflective and research-oriented professional skills and in-depth theoretical foundations of professional practice. Teacher preparation is therefore a holistic approach towards overall development of the potentials of persons wishing to engage in teaching as a career. This ensures qualitative teaching as a precursor of qualitative learning during practice (Mbakwem&Anyanwu, 2014). Teacher preparation is a single aspect of teacher education programme that lends professionalism (Anikweze, 2014). Obanya (2007) posits that adequate training and exposure of teachers enable them to be relevant to their job and engage in qualitative

teaching through mastery of subject content, provision of dynamic and varied exposure of learners in developing analytical and independent thinking skills. Teacher preparation is conceptualized in this study as a synergy between knowledge dissemination and quality assurance for effective education and learning outcomes at secondary school level.

Knowledge dissemination is conceived as a crucial issue in ensuring qualitative education at all levels of education. Onuigbo (2005) perceives knowledge dissemination as not just getting research available through publication of journals and academic conference presentations but reaching the targeted group of learner through appropriate and effective dissemination of information to ensure that knowledge is acquired and used in reaching decisions, making changes and easily available to the right people that need it . It is observed that a method employed by a teacher in teaching any concept impacts positively or negatively in the learning of the concept by students (Ukwueze, 2011). Hence, students' performance in any academic activity rests squarely on the means through which they were taught. To ensure positive results in this regard, there must be dependable and sustainable quality assurance in the system.

Quality assurance is a systematic management and assessment procedure adopted to monitor performance against objectives (Garba, 2014).According to Okebukola (2010), quality assurance in education is a means of involving a lot of activities to improve the quality of input, processes and output such as teaching/ learning interactions, internal efficiency, research, evaluation procedure, management practices, curriculum facilities, funding, motivation, students and teachers. Quality assurance in teacher preparation should therefore be concerned with raising and sustaining minimum standards that will inspire students with a desire for self-improvement and achievement of excellence in teaching profession. This will no doubt raise teachers that can teach and produce students who can think for themselves, respect the views and feelings of others as well as dignity of labour and appreciate those values specified under Nigeria's national goals (FRN, 2004). This depends largely on the quality of staff and implementation policy available in the school system to enhance teaching and learning.

Review of Related Literature

Onuigbo (2005) observed dearth of instructional resources in teaching for effective knowledge dissemination especially among the special needs students like lack of modern information communications technology devices. He also revealed that students enjoy lecture, discussion note situation, individualized teaching and assignments as major teaching methods that can effect knowledge dissemination. Garba (2014) identified effective teaching practice, qualitative staffing in teacher training institutions, availability of relevant teaching facilities, funding and raising of teacher morale and status, and staff development as important quality assurance dispositions that can ensure quality education and optimal performance of students in teaching-learning processes. Okeke (2005) attributed poor state of education in Nigeria to acute shortage of infrastructure and facilities, gender disparity in school enrollment, and huge unqualified teaching force.

Oforka (2010) revealed factors affecting quality of secondary education in Nigeria as recruitment of unqualified teachers, lack of frequent workshops, seminars and in-service training for teachers to update their knowledge; poor acquisition of functional literacy and numeracy by graduates of primary schools; unstable government policies in education; and acute shortage of infrastructural facilities.In their own assertion, Yilbe, Opara and Dashe (2014) posit that quality education should encompass processes through which trained teachers use child-centred teaching approaches and effective managed classrooms and schools including skillful assessment to facilitate learning and reduce disparities. In his study, Ukwueze (2013) observed poor teaching methods, examination malpractices, lack of functional facilities, and ill-equipped teachers from training institutions as indices responsible for poor quality secondary education in Nigeria. Similarly, the Federal Ministry of Education (2009) reiterated that pre-service teacher education, recruitment, admissions and graduation requirements are inadequate, stressing that in teacher education programmes at degree level, the duration of practical teaching is short; little or no time is devoted to classroom observation prior to teaching practice; quality of lesson preparation and delivery by student teachers is low; and quality supervision is inadequateduring teaching practice. Also identified and highlighted are insufficient equipment and materials, overcrowded lecture halls and dilapidated infrastructure and furniture; lack of opportunities for continuous professional development for lecturers, insufficient course content for the demands of a knowledge; and poor mastery of content knowledge in teaching subjects with emphasis on content memorization and use of lecture method for knowledge dissemination in the classrooms (FME, 2009). Undoubtedly, these indices account for poor preparation of teachers in teacher training institutions which pose adverse consequences on new generation teachers, students and the entire society.

The Problem

Over the years, students in secondary schools have been performing abysmally below average in public examinations resulting to public outcry about falling standard of secondary education in Nigeria.Several experts attribute this monumental academic calamity to several teacher-related reasons. According to Nwokeocha (2013), candidates with the least academic aptitude are admitted into Colleges of Education thereby laying bad foundation at primary school level while many candidates resort to education programmes in the universities only after failing in their preferred courses in the Unified Tertiary Matriculation Examination (UTME) to train and get recruited as teachers in secondary schools.Thus, there is fundamental problem in teacher preparation which is undoubtedly responsible for below average standard of secondary education in Nigeria. Perhaps, educators lack the skills required to disseminate desired information or knowledge to their students. Thus, there could be challenges in teacher preparation especially in the areas of knowledge dissemination for students to become adequately developed and quality assurance mechanism for ensuring purposeful secondary education. It is in realization of

this that this study sought to investigate some perceived lapses in knowledge dissemination and quality assurance in teacher preparation as impediments to effective secondary education in Nigeria.

It is hoped that the study would probably identify the lapses in teacher preparation with regards to knowledge dissemination and quality assurance in order to proffer solutions to the identified lapses as a means of improving teacher education in institutions of higher learning. Furthermore, the results of the study might provide solutions that can improve students' performances in secondary schools. Policy makers may probably become abreast of areas that require government interventions in order to tackle poor standard of secondary education in Nigeria. Teachers themselves will benefit from the study as they might be able to see the genesis of their inability to deliver effectively in the classrooms and opt for in-service training and re-training via seminars, workshops and conferences.

Research Questions

The following research questions were formulated to guide the study in line with the purpose of the study:

1. What are the lapses in knowledge dissemination in teacher preparation in Nigeria?
2. What are the lapses in quality assurance in teacher preparation in Nigeria?
3. To what extent are the observed lapses in knowledge dissemination and quality assurance, impediments to effective secondary education in Nigeria?

Hypotheses

Below are the hypotheses tested at 0.05 level for the study:

1. There is no significant difference in the ratings of lapses in knowledge dissemination in teacher preparationas impediments to secondary education between lecturers in federal and state universities.
2. There is no significant difference in the ratings of lapses in quality assurance in teacher preparation as impediments to secondary education between lecturers in federal and state universities.

Methodology

The descriptive survey design was employed in this study with a population of 146 lecturers randomly selected from Faculties/Institutes/Schools of Education in the 36 Federal and 37 State Universities in Nigeria.The choice of survey research design is in line with the position of Laukshear and Knobel (2004) that surveys involve description and influences from responses collected from a sample chosen from a targeted population.An instrument called Teacher Preparation Questionnaire (TPQ) was constructed and validated for data collection. The instrument was divided into four sections. Section A sought information on the bio-data of the respondents while Section B comprised a set of items that solicited information on the areas of lapses in knowledge dissemination in teacher preparation. The third section, Section C elicited information from the respondents on the lapses in quality assurance in teacher preparation. Section D sought information from the respondents on the extent the

observed lapses constitute impediments to secondary education in Nigeria.The respondents in section A responded in terms of adequacy of the variable while in sections C and D, they were subjected to four response categories such as Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) on item-statements that indicated areas of lapses in quality assurance and impediments to effective secondary education respectively.

Validity and Reliability of the Instrument

The items in the instrument (TPQ) were painstakingly scrutinized by two experts in Guidance and Counselling for face validity. The final version of the instrument was administered on two occasions among twenty lecturers in two Colleges of Education who were not part of the study within an interval of three weeks. Through Pearson's Moment Correlation Coefficient analysis, 0.93 was obtained to ascertain the reliability of the instrument.

Data Collection

The questionnaires were given out to lecturers during the annual national conferences of the Nigerian Society for Educational Psychologists (NISEP) and the Association of Sociologists of Education of Nigeria (ASEN) held at Ondo and Owerri respectively in October 2014. In addition, the instrument was also sent to some lecturers via e-mail addresses which were filled and returned electronically. In all, 146 copies that were properly filled were used for the study.

Results

The research questions of the study were answered using descriptive statistics while the hypotheses were tested at 0.05 level using inferential statistics. The response pattern for the ratings of the items was on a four-point scale ranging from 1 to 4. A range of 1.00 to 2.49 indicates outright rejection of an item while a range of 2.50 to 4.00 implies an acceptance of a particular item.

Table 1

Lapses in Knowledge Dissemination in Teacher Preparation

Areas of Lapses	MEAN	SD
Use of ICT skills to harness Open Educational Resources (OER)	2.81	0.91
Availability of ICT facilities and technical staff for teaching and learning	2.38	1.02
Use of obsolete lecture notes by lecturers	2.56	0.63
Collaboration with colleagues in other institutions	2.69	0.87
Use of self-sponsored conferences for collaboration with colleagues	2.50	0.52
Use of authority-sponsored conferences for knowledge sharing	2.25	0.86
Use of ICT facilities in teaching students	2.50	0.63
Use of regularly revised lecture notes in teaching student teachers	2.56	0.51
Free access to Internet services for students' assignments	2.50	0.73
Use of tutorial groups in teaching students	2.25	0.77
Use of projectors and slides in teaching	2.31	0.48
Organization of faculty conferences with student teachers	2.19	0.75

The data in Table 1 indicate that several indices as indicated are challenges facing knowledge dissemination in teacher preparation in Nigerian universities. Specifically, the respondents are in agreement that ICT facilities and technical staff for teaching and learning are not available; use of tutorial groups is not reckoned with in teaching students; projectors and slides are not used to prepare student teachers; and faculty conferences are not organized for student teachers for knowledge dissemination. Lecturers use obsolete notes to teach their students.

Table 2
Lapses in Quality Assurance in Teacher Preparation

Areas of Lapses	MEAN	SD
Education courses reflect current development in teaching profession	2.00	0.82
Education courses are adequate for professional development	2.06	0.85
Quality of examination scores is compromised by irregularities	2.56	0.96
Qualified students are not selected for admission into education	2.31	1.01
Lecturers make use of obsolete notes to teach	2.25	0.68
Lecturers notes are usually re-cycled	2.68	0.72
Inadequate course contents in students' teaching subject areas	2.13	0.62
Inadequate courses in students' teaching subject areas	2.71	0.72
Counselling services are not provided at faculty level	2.56	1.09
Inadequate knowledge of lecturers in their areas of specialization	2.00	0.52
Inadequate provision for external moderation of scores after exams	1.88	0.62
Corruption among lecturers and students undermine examination scores	2.63	1.09

The data in Table 2 show that the respondents agree that quality of examination scores is compromised by irregularities (M=2.56; SD=0.96); counselling services are provided at faculty or school level for students and staff(M=2.56; SD=1.09); and corruption among lecturers and students undermine examination scores (M=2.63; SD=1.09). In addition, lecturers usually re-cycle their notes to teach without additional and current information (M=2.68; SD=0.72); and course contents of students' teaching subject areas are usually inadequate (M=2.71; SD=0.72). All other indices of quality assurance are not seen by the respondents as challenges available in Nigerian universities that affect quality of teacher preparation.

Table 3
Areas of Impediments to Secondary Education

Areas of Impediments	Mean	SD
Education graduates lack professional skills to teach their subjects	2.30	0.70
Examination malpractices are more rampant in secondary schools	2.78	0.74
Students cheat in examinations because they are poorly taught	2.43	0.73
Most of Nigerian school leavers are half-baked	2.52	0.79
There is high rate of dropout among secondary school students	2.70	0.63
Teaching and learning lack metacognitive awareness and epistemology	2.74	0.62
Persistence maladaptive behaviours exist in secondary schools	2.78	0.67
Most graduate teachers do not know how to write lesson notes	2.83	0.65
Several school leavers cannot cope academically in tertiary institutions	2.87	0.63
There is high rate of failure in public exams in secondary schools	3.13	0.46

The data in Table 3 indicate several impediments to secondary education in Nigeria as occasioned by lapses in knowledge dissemination and quality assurance in teacher preparation. Specifically, and in order of magnitude, there is high rate of failure in public examinations in secondary schools (M=3.13; SD=0.46); several school leavers cannot cope academically in tertiary institutions (M=2.87; SD=0.63); most graduate teachers do not know how to write lesson notes (M=2.83; SD=0.65); persistent maladaptive behaviours exist in secondary schools (M=2.78; SD=0.67); examination malpractices are more rampant in secondary schools than in any other level of education (M=2.768; SD=0.74); there is lack of metacognitive awareness and epistemological beliefs in teaching and learning (M=2.74; SD=0.62); and there is high rate of school dropout among secondary school students (M=2.70; SD=0.63). In addition, most Nigerian school leavers are half-baked (M=2.52; SD=0.79). The respondents do not believe that education graduates lack professional skills to teach their subjects (M=2.30; SD=0.70). Finally, the respondents do not believe that cheating in examinations is because students are not well taught (M=2.43; SD=0.73). Could this be an indication that students' poor performance in secondary schools is borne out of their own faults alone?

Table 4
The t-test Analysis of Respondents' Ratings of Lapses in Knowledge Dissemination

University	Number	Mean	SD	Standard Error	df	t	P
Federal	70	2.42	.7242	.01301	144	1.113	.921
State	76	2.58	.7945	.10028			

The data in Table 4 show that at 0.05 level, there was no significant difference in the ratings of knowledge dissemination in teacher preparationby the respondents. Therefore, the hypothesis of no significantdifference in the ratings of knowledge dissemination in teacher preparationas impediments to secondary education between lecturers in federal and state universities is hereby accepted.

Table 5

The t-test Analysis of Respondents' Ratings of Lapses in Quality Assurance

University	Number	Mean	SD	Standard Error	df	t	P
Federal	70	2.13	.7719	.21102	144	3.57	.011
State	76	2.67	.8975	.30425			

The data in Table 5 show that at 0.05 level, there was significant difference in the ratings of quality assurance in teacher preparationby the respondents. Therefore, the hypothesis of no significantdifference in the ratings of quality assurance in teacher preparationas impediments to secondary education between lecturers in federal and state universities is hereby rejected.

Discussion

Teacher preparation is a crucial task that has a multiplier effect on the education sector of every nation. A teacher that is well prepared using appropriate pedagogical curricular contents in education and his or her teaching subject has the potentials of achieving his or her goals and objectives in the classroom and turn out students that will excel in both learning outcomes and behavioural dispositions. A contrary situation will probably lead to ineffective teaching and graduation of half-baked school leavers. This study discovered several indices of lapses in knowledge dissemination in teacher preparation in Nigeria. Specifically, the study observed that lecturers who prepare student teachers do not have access to ICT facilities and technical staff for effective teaching; and there are inadequate authority-sponsored conferences for collaboration and exchange of ideas among educators. Also, lecturers do not use tutorial groups in teaching; and the use of projectors and slides in teaching student teachers as well as organization of faculty-based conferences involving students is grossly inadequate. These discoveries are in agreement with the positions of Okeke (2005), Onuigbo (2005), Federal Ministry of Education, FME (2009), Oforka (2010) and Ukwueze (2011) that lack of functional facilities and opportunities for continuous professional development for lecturers in teacher education institutions affect quality of teachers produced.

The study also observed that quality of examination scores is compromised by corruption and examination malpractices. In addition, course contents in teaching subject areas are not adequate for skill acquisition in teaching such subjects. Similarly, counselling services are not provided at faculty level in teacher training institutions for students' success and support. These lapses in quality assurance as observed are in consonant with the positions of Federal Ministry of Education

(2009), Nwokeocha (2013) and Anikweze (2014) that training institutions lack adequate quality assurance for quality teacher preparation.

In addition, the study also observed that the consequences of the identified lapses in knowledge dissemination and quality assurance as they affect secondary education include students' high rate of failure in public examinations; inability of school leavers to cope academically in tertiary institutions; and inability of graduate teachers to write acceptable lesson notes to teach students in secondary schools. Other consequences observed include rampant examination malpractices, maladaptive behaviours among students, high rate of drop out, and lack of metacognitive awareness and epistemological beliefs in secondary schools. These observations are in line with the assertion of Nwokeocha (2013) that most new teachers are not adequately prepared to meet with the needs of students which ostensibly account for poor standard of secondary education in Nigeria.

Finally, the study observed a unanimous opinion by lecturers in both federal and state universities that there are lapses in knowledge dissemination in teacher preparation which account for several impediments to secondary education in Nigeria. This agreement is in line with the position of Garba (2014) that quality education at secondary school level is a function of quality teachers since what students learn is directly dependent on what and how teachers teach based on their knowledge, skills and commitment. The lecturers however, differ on the quality assurance of teacher preparation in both federal and state universities. This could be substantiated by the fact that federal universities are better equipped than state universitiesas states depend on federal allocation of funds to finance their universities. Besides, these funds are neither enoughnor released regularly to states.

Implications of the Study for Counselling

The discoveries of this study show that not all the problems responsible for poor results in secondary schools are teacher-related. This is an indication that students have their own share of the blame. For instance, one expected that education graduates who teach in secondary schools lack professional skills to teach their subjects; and the rampant examination malpractices in secondary schools are occasioned by poor teaching. These facts were proved wrong by the findings of the study.

Hence, counsellorsneed to work on their students' attitude to studies in order to inculcate good study behaviours in them. Through Rational Emotive Behavioural Therapy, counsellors can change the irrational thoughts of students to enable them remain in schools until they graduate, avoid examination malpractices, and desist from maladaptive behaviours. With adequate counselling too, students would be guided and equipped with what it takes to cope academically in tertiary institutions. Counsellors should be capable of ensuring metacognitive awareness and epistemological beliefs in teaching and learning to improve students' individualized learning culture and learning outcomes.

Conclusion and Recommendations

Knowledge dissemination and quality assurance in higher education are two concepts that should be seen as driving forces for attainment of desired objectives. Like other areas of higher education, teacher education sector has to be well fortified in terms of knowledge dissemination and quality assurance. This is highly necessary since adequate preparation of teachers is synonymous with quality education system. The identified lapses in knowledge dissemination and quality assurance in teacher preparation are negatively skewed towards poor standard of secondary education in Nigeria. For instance, lecturers' use of obsolete lecture notes, their inability to access ICT facilities and technical staff for knowledge dissemination; lack of authority-sponsored conferences for collaboration; and inability to use projectors and slides in teaching their students in this modern age account for poor quality graduate teachers that are pushed into the society on annual basis. The consequences of this ugly situation are rampant examination malpractices, mass failure in public examinations, high rate of student dropout, and maladaptive behaviours among others which are prevalent in secondary schools.

In view of the foregoing and the findings of this study, it is recommended that:

1. Teacher educators should be regularly trained and re-trained in ICT and other pedagogical skills through authority-sponsored seminars, conferences and workshops and other forms of staff development.
2. Teacher preparation institutions should be subjected to regular accreditation and supervision to ensure adequacy and relevance in curricular contents of courses in both education and students' teaching subject areas in allied faculties.
3. Counselling services should be provided in all the Faculties/Institutes/Schools of Education for the benefit of students and staff in order to ensure logical and sound mind free from corruption, examination malpractices, lack of commitment and laziness.
4. Every secondary school in Nigeria should have well equipped guidance and counselling units to take care of students' vocational, social, psychological and academic challenges as well as orientation for new teachers and provision of information on contemporary pedagogical methods and skills via seminars and conferences at school level.

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