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Environmental Education through Art: A Creative Teaching Approach

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Abstract

The present study describes a creative teaching approach utilizing two works of art in environmental education teaching, making the teaching of material recycling and reuse more experiential, participatory, and original. The third work of art, selected and presented by the learners themselves, "completed the picture" of this innovative approach. Therefore, as the study proves to have the right encouragement, the learners can broaden their cognitive capacities, while through discovery learning they can come in contact with artworks that they did not even know that existed until recently

Key Words: Environmental Education, Art, Teaching Approach, Creativity

Introduction

Nowadays, the use of artworks in teaching is an innovative and creative approach, which is becoming more and more popular worldwide (Burnham & Kai-Kee, 2011). According to studies (Barnes, 2015; Kleiner, 2015), teachers and learners believe that the use of artworks can enhance a learning process and contribute to the complete achievement of the learning objectives specified by the teacher.

Therefore, through the use of artworks, the teacher can overcome the hackneyed teaching approaches and trigger the learners so that to actively participate in the learning process (Phillips & Fragoulis, 2012). Through their active participation, the learners initially familiarise themselves with art and learn to explore the aspects of a topic through the systematic observation and analysis of works of art (Anderson, 1993). More specifically, the systematic observation and the attempt to interpret works of art, fosters analytical thinking skills, critical thinking and an interpretive approach towards reality (Efland, 2002).

At the same time, the aesthetic experience of observing and studying works of art offers to the learners the possibility to process symbols that are not only related to linguistic and mathematical intelligence, as well as to express meanings and emotional states (Kokkos, 2011). In this sense, the use of art in the educational process promotes both the versatile empowerment of learners' intelligence and the integrated development of their personalities (Lawrence, 2008).

In recent years, the use of artworks in the learning process is an innovative teaching approach for the environmental sciences (Koutsoukos & Fragoulis, 2017). Several works of art have been created from time to time, the themes of which include the natural environment and its elements, which can become excellent teaching tools in explaining environmental issues (Neperud, 1997). According to relevant literature, education through the use of art involves the introduction of artworks in the teaching process – the ones related to the subject of teaching in the context of processing a learning objective (Eisner, 2002). Thus, through the processing of these artworks, the meaning they carry gets revealed, and then it can be used as a pretext for undertaking a deeper approach towards the subjects under consideration (Barnes, 2015; Kokkos, 2011; Efland, 2002).

Teaching approach

The present study presents the use and utilisation of two artworks in environmental education teaching in adult learners. In particular, the said teaching approach was applied as part of the course "Environment and Agriculture" in the second grade of an Evening Lyceum in the individual disciplines of recycling and reuse of materials and the prudent management of natural resources. Therefore, in teaching the above thematic units, Italian-Finish Marco Casagrande's environmental art creation "Sandworm" (Table 1), and the sculpture entitled "Earth Tear" created by the American Marta Thomas (Table 1) were used.

In more detail, Casagrande's artwork "Sandworm" was constructed in 2012 on the dunes of the Wenduine coastline, Belgium. Its length is 45 metres, its maximum width 9 metres, and its maximum height 10 metres, and it is made out of branches, dried leaves and willow bark, knitted in a masterly way. Looking at this artwork from far away, it seems like a worm emerging out of the ground (Picture 1). When coming close by, the visitor can touch the outer surface of the artwork and also interact with it by entering and walking in the interior, while apart from walks space is also suitable for picnics (Picture 2). According to the artist, the "sandworm" is a construction made exclusively using natural materials (branches and plant debris from willow trees) aiming at being part of the natural landscape through its interaction with the habitat.



1. Sandworm, view from outside



2. Sandworm, interior view

The second work of art is Marta Thoma's sculpture entitled "Earth Tear," which was created in 1993 and is installed in San Francisco, USA. It is made of recyclable glass bottles joined together to create the shape of a tear (Picture 3). The characteristic is that the artist used bottles found in the beaches of California after the beach cleaning operations to create the sculpture.



3. The sculpture entitled "Earth Tear"

These two works of art were considered as useful tools in the field of environmental education. Therefore, the teacher developed a strategy for the utilisation of the artworks during teaching in the classroom, interconnecting them with the corresponding thematic units of the school book, and transforming these two artworks into teaching tools for environmental education.

In particular, the "Sandworm" was associated with the critical question: "how can nature's materials be utilised in their eternal cycle on the earth?". Within this framework, the teacher initially presented the said artwork briefly to the learners, and asked them, using the brainstorming technique, to record the first words that come spontaneously to their minds the first time they see the artwork. The words heard were the following: beach, sand, sea, environment, branches, originality, construction. The teacher wrote the words on the board and then discussed with all students, in an attempt to combine the words mentioned with the work of art and draw the first conclusions.

Then, the teacher divided the learners into two working groups of 6 people, and asked each group to answer the following three questions: "What is the topic of the artwork?", "Which are the possible messages of the artwork?", and "Which elements compose the natural landscape in the area surrounding the artwork?". Each group had 10-15 minutes so that its members could discuss the above questions, after which each group presented to the class its views on the questions.

According to the learners, the topic of the artwork concerns a sandworm, a living organism of that beach that is inextricably linked with this particular habitat. The messages conveyed by the artwork creator focus on the interaction between the natural environment and this work of art, which highlights that it is possible to create an aesthetically nice construction using simple and natural materials that fits harmoniously with the landscape and can also have functional value when used as a recreation area. As far as the natural landscape surrounding the artwork is concerned, the learners were impressed by the large sandy beach with its herbaceous vegetation, together with the vastness of the sea.

Deepening the observation of the artwork, given that Casagrande created the "Sandworm" with branches and plant debris from willow trees exclusively, the teacher raised the question "how can natural materials found in the environment be utilised and transformed into an impressive work of art?". Then, the learners worked again in groups and wrote down the benefits of using plant materials.

After a break, the environmental education course continued, and the teacher presented to the learners the second work of art, Marta Thoma's "earth tear." This work of art, which is made of recyclable glass bottles, was an excellent teaching tool in the individual topics of material recycling and reuse. Initially, the teacher showed the artwork to the learners and asked them for initial comment. The learners stated their first impressions and expressed their initial feelings after looking at the work of art. As they stated, they were impressed by the fact

that the sculpture is made of bottles that are not useful anymore, which were utilised by the artist as a cheap and original material.

Following this, the teacher divided the learners into three working groups of 4 people, and asked each group to answer the following three questions: "What is the topic of the artwork?", "Which is its possible message?", and "What materials are used in its construction?". Each group had 15 minutes so that its members could discuss the above questions, and then each group presented to the class its views on the questions.

After this, the teacher associated this particular artwork with the environmental education topics under study and raised a critical question to all learners of the class: "Which are the main advantages of bottle recycling and reuse?". The learners had 10 minutes to think, and then the teacher started writing their answers on the board. According to the learners, recycling is a process, which contributes to the sustainable development from an economic, environmental and social point of view. It is a beneficial approach to waste management because it accomplishes significant environmental, economic and social benefits.

In particular, having observed the artwork "earth tear", the learners wrote down the main advantages stemming from the bottle recycling and reuse procedures as follows: (a) the volume of waste ending up in the landfills is reduced, and thus the problem concerning the saturation of existing landfills is limited; (b) natural resources are better utilised, and their irrational exploitation is limited; (c) climate change phenomenon associated with waste decomposition in landfills is limited; (d) it is possible to create new jobs in the fields of transport, collection, sorting and dismantling recyclable waste; (e) social conflicts concerning the design and location of new landfills are reduced.

Table 1. Overview of the two works of art used by the teacher

Title	Sandworm	Earth tear
Artist	Marco Casagrande (1971 –)	Marta Thoma (1954-)
Characteristics	Constructed entirely from plant debris from willow trees (45X10 metres)	Constructed from recyclable glass bottles
Year of creation	2012	1993
Website	http://trendland.com/marco-casagrandes-sandworm/#	http://www.mthoma.com/earthtear3.html
Location	Wenduine, Belgium	San Francisco, California, USA
		

After presenting both the aforementioned works of art, the teacher assigned a relevant project. More specifically, the 12 learners of the class were requested to work as a single working group so as to find a work of art that is associated with environmental education, and present it during the next class, one week later.

The goal of this project was to activate the learners towards discovery learning and familiarise themselves with the approach of environmental issues through art. It was decided to work as a single group so as to enhance their skills, including collaborative learning, solidarity, dialogue and exchange of views. Therefore, during the next class, the learners selected and presented the work of art entitled “Henry the giant fish” that was created by the American artist and teacher Angela Haseltine Pozzi (Table 2).

This is a sculpture located at Oregon, USA, made of waste collected from local coasts, such as bottles, soft drink cans, tins, plastic packaging, etc. As highlighted by the learners while presenting the artwork, this particular sculpture is an excellent example of how seemingly useless products that contaminated the environment can be used to create a work of art. Indeed, in the modern world where the rational management and exploitation of natural resources is more than ever required, the reuse of waste and industrial products is a key component of sustainable development.

Having this sculpture as a trigger, the learners underlined the importance of cleaning urban waste from coasts and the benefits of waste collection for offshore ecosystems. The discussion was actually extended on whether similar works of art could be created for teaching purposes using waste and other useless material found in large amounts in local coasts.

Table 2. The work of art selected by the learners

Title	Henry the giant fish
Artist	Angela Haseltine Pozzi
characteristics	Made of waste collected from the coasts of Oregon, the USA, such as bottles, soft drink cans, tins, plastic packages, etc.
Year of creation	2008
Website	http://www.washedashore.org/fish_ss.php#slideshow
Location	Oregon, USA



Conclusions

Utilising works of art for educational purposes is a modern teaching practice offering multiple benefits, apart from the development of critical thinking and aesthetic perception. The learners enhance their stochastic ability through the observation of works of art, interpret messages and recognise relationships, while simultaneously developing their creative thinking through their imagination and inventiveness.

Moreover, according to the relevant literature, it is recommended that teachers request the learners' participation in the process of artwork selection, a practice that can be effective – as long as the proper encouragement and triggering is provided – even if the learners are not familiar with art (Kokkos, 2011). Having the right encouragement, the learners can broaden their cognitive capacities, while through discovery learning they can come in contact with artworks that they did not even know that existed until recently.

The case study discussed in the present article utilises two works of art in environmental education teaching, making the teaching of material recycling and reuse more experiential, participatory, and original. The third work of art, selected and presented by the learners themselves, "completed the picture" of this innovative approach. As far as practical implications are concerned, the present study enriches international literature in this relatively new and interesting field of utilising art in the learning process. This study may be useful for teachers that teach environmental science courses, for learners studying environmental sciences, as well as for any researcher interested in utilising art for pedagogical purposes. In addition, this study can have a considerable impact on existing literature which connects environmental education and use of artworks in teaching.

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Conflicts and Conflict Management in Primary Schools of Kaura Local Government Area of Kaduna State

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Abstract

This research work entitled “conflicts and conflict management in primary schools in Kaura Local Government Area of Kaduna State.” The population for the study was 1, 147 and 170 respondents were purposively sampled for this study. The analytical tools used were frequency, percentages and analysis of variance (ANOVA). The findings showed that there was a significant difference in the opinion of the respondents on the causes of conflict in primary schools in Kaura Local Government Area of Kaduna State; there was no significant difference in the opinion of the respondents on the types of conflicts in primary schools in Kaura Local Government Area of Kaduna State; there was a significant difference in the opinion of the respondents on the effects of conflict in primary schools in Kaura Local Government Area of Kaduna State; and there was a significant difference in the opinion of the respondents on the methods of managing conflict in primary schools in Kaura Local Government Area of Kaduna State. It was recommended that Head teachers should ensure that conflicts is brought down to it minimal level to enhance the effectiveness of teaching and learning, to raise the morale of teachers and pupils, to reduce indiscipline, to maintain unity and to reduce delinquency among pupils in some of the selected primary schools. Head teachers should encourage effective communication, create awareness, effective guidance and counseling, sincerity and openness in the schools, fair hearing at all times to the two parties involved in conflict in the schools.

Key Words: Conflict, Conflict Management, Primary Schools

Introduction

Conflict occurs between people in all kinds of human relationships and in all social settings. Because of the wide range of potential differences among people, the absence of conflict usually signals the absence of meaningful interaction. Conflict by itself is neither good nor bad. However, the manner in which conflict is handled determines whether it is constructive or destructive (Deutsch & Coleman, 2000). Conflict is defined as an incompatibility of goals or values between two or more parties in a relationship, combined with attempts to control each other and antagonistic feelings toward each other (Fisher, 1990). The incompatibility or difference may exist in reality or may only be perceived by the parties involved. Nonetheless, the opposing actions and the hostile emotions are very real hallmarks of human conflict.

Conflict, for Nyamajiwa (2000, p. 3), can be defined as, “the opposition of individuals”, or groups’ interest, opinions or purpose”. It can be between individuals, groups, parties or countries. However, most conflict situations require negotiation whenever they occur. In order to formulate an effective solution, it is essential that all factors which give rise to the conflict situation are carefully identified and explored. Nyamajiwa (2000) has identified some causes or sources of conflict within an organization. These include inadequate information, role conflict/collision, and differences in goals, values, and competition for limited resources, responsibility, personnel, space, tools and equipment, access to superiors. In an organization such as a school, a number of these sources of conflict could be applicable to school heads and class teachers. Almost every day we hear of cases where teachers and heads conflict over issues that concern their practices and district offices are inundated with reports of teachers and heads on collision paths. In most cases, unresolved conflicts result in communication breakdown affecting the smooth running of the school. In other instances head-teachers physically fight with teachers over certain issues. Such situations disturb the tone and climate of the school and ultimately the performance of both teachers and pupils are negatively affected. Perturbed by these circumstances, the study sought to establish the major sources of these conflicts and examine the frequency or occurrences of the negotiations between school head-teachers, teachers and pupils.

Conflicts have become part and parcel of human organizations worldwide. This indeed is a paradox because of the amount of energy and resources expended by organizations to prevent and resolve conflicts. Flippo (1980) attempted an explanation when he remarked that, “a total absence of conflict would be unbelievable, boring, and a strong indication that conflicts are being suppressed”. The inevitability of conflict was also established by Harold Kerzner (1998) when he asserted that conflict is part of change and therefore inevitable. It is therefore not an aberration to expect conflicts in the administration of primary schools in kaura local government of kaduna State. The nature and types of conflicts that occur in primary school administration vary from one school to another. The common types of conflicts usually occur between the students on one hand and the school authority on the other. Other forms of conflict include interpersonal conflicts among staff and as well as the students. Higher levels of conflicts include those that involve the Nigeria Union of Teachers (NUT) and the State Government. This study was particularly relevant at a time when Kaduna State workers (teachers inclusive) had to embark on a prolonged strike over the non- implementation of the Harmonized Salary Structure (HSS) announced by the Federal Government. The partial implementation of HSS for workers in the state after a long delay did not help matters. All of these became potential sources of industrial conflicts not only in the educational sector, but also in the entire civil service in the state. The inability of the state government to effect payment of salaries promptly and the subsequent forceful retirement of teachers and other civil servants further aggravated the problem. Some have attributed the problems of conflicts in primary schools to poor salaries and facilities. In the words of Ademola, (a teacher who became a lawyer) cited by Oladepo (1985) the salary was poor to the extent that “... society would not accord me respect as a teacher, for I was regarded as one of the wretched of the earth. When the opportunity came, I called it quit immediately and have had no regrets ever since”. An investigation into the nature of conflicts, their causes as well as their effects on school administration are important in order to ensure harmony in the state and to facilitate higher productivity.

Conflict is inherent in organizations, and managing it is a function of the leader. As the nature of organizations has evolved over time, so have the role of conflict in them and the work of the leader in responding to conflict situations. Early organizational theorists viewed conflict as detrimental to organizations. Now conflict is considered a natural phenomenon, “a normal human condition that is always present to some degree” (Schein, 2010, p. 95), and students of organizations see unresolved conflict rather than conflict itself as a deterrent to organizational effectiveness. The manner in which conflict is handled has potential to affect organizations and influence organizational outcomes (Blake & Mouton, 1964; Rahim, 2001; Thomas, 1976, 1992). Effectively managing rather than eradicating conflict has become a function of an effective leader.

Conflict management is the principle that all conflicts cannot necessarily be resolved, but learning how to manage conflicts can decrease the odds of non-productive escalation. Conflict management involves acquiring skills related to conflict resolution, self-awareness about conflict modes, conflict communication skills, and establishing a structure for management of conflict in your environment.

This research work will be based on conflict and conflict management in primary schools in kaura local government of Kaduna state.

Problem Statement

Conflict in any organization may not enable the organization achieve its set objectives if not properly checked. Conflict is a serious problem in modern organization, most of the time, it wastes precious human resources that could have been utilized to enhance activities. Indeed primary schools of kaura local government are not excluded from having conflicts and managing it. Practicing managers and school administrators suggest that they spend more than 20% of their time dealing with conflicts or its aftermath. Thomas and Schmidt (1976).

Conflict bring about low morale in personnel, low production, ineffective communication, lack of cooperation, that usually hampered overall performance of the organization, high labour turnover and so on. Teacher conflicts arises between teachers themselves, teachers with students because of poor leadership style of the headmaster/headmistress, gossips, quarrelling, on little or nothing especially from female teachers.

This study will therefore look at these problems and find out how they are been resolved in primary schools in kaura local government of Kaduna state.

Objectives of the Study

The following objectives were formulated:

- i. Identify the causes of conflicts and its management in primary schools in kaura local government area, Kaduna state.
- ii. Examine the different types of conflicts and its management in primary schools in kaura local government area, Kaduna state.
- iii. Access the effects of conflicts on the management of primary schools in kaura local government area, Kaduna state.
- iv. Determine the different methods of managing conflicts in primary schools in kaura local government area, Kaduna state.

Research Hypothesis

The following null hypotheses were postulated:

HO₁: There is no significant difference in the opinion of the Headmaster/headmistress, teachers, pupils, and Parent-Teachers-Association (PTA) (respondents) on the causes of conflict in primary schools in kaura local government area, Kaduna state.

HO₂: There is no significant difference in the opinion of the Headmaster/headmistress, teachers, pupils, and Parent-Teachers-Association (PTA) (respondents) on the types of conflict in primary schools in kaura local government area, Kaduna state.

HO₃: There is no significant difference in the opinion of the Headmaster/headmistress, teachers, pupils, and Parent-Teachers-Association (PTA) (respondents) on the effects of conflict in primary schools in kaura local government area, Kaduna state.

HO₄: There is no significant difference in the opinion of the Headmaster/headmistress, teachers, pupils, and Parent-Teachers-Association (PTA) (respondents) on the methods of managing conflict in primary schools in kaura local government area, Kaduna state.

Significance of the Study

The study accesses how conflicts are effectively managed in order to attain good performance. The significance of this study is predicated on the need for a peaceful atmosphere conducive for learning and academic exercises. The study unveils the causes of conflict and its effects in the administration of a primary school and how to

prefer solutions existing conflicts and potential ones. It is also hoped that the study would add to already existing research literature on conflict management in organizations and outcome of the study will provide basis for other researches undertaking further studies on the subject matter.

Methodology

In Regards to this study, a survey research design was adopted because the population is large. Survey according to Osuola et al (2001) studies both large and small population by selecting and studying the sample chosen from the population to be discussed. The major instrument that was used is structured questionnaire to collect and assemble data for the study. The population of this study consists of all primary schools in Kaura local government Area of Kaduna state. The total number of primary schools in Kaura Local Government Area =137(consisting of 124 public schools and 13 private schools) with a total of 3140 teachers and approximately 19191 pupils, out of which Ten (10) primary schools where selected. The findings and recommendation of the study are applicable to all primary school Head-teachers, Teachers, and the Parents-Teachers- Association (PTA) in the local Government. To test the reliability of the instrument twenty (20) respondents were selected from Jama'a local Government of Kaduna State. The questionnaire was administered on their ground their scores were then employed. Using T-test statistic, reliability co-efficient 0.75 was obtained. The researcher visited the sampled primary schools in Kaura Local Government Area of Kaduna State. The researcher sought the permission of the Head-teachers in the selected primary schools for the purpose of administering the questionnaires. For the purpose of organizing data and drawing adequate conclusion, Statistical Package for Social Sciences (SPSS. 22) was used to analyze the data collected from the respondents. Frequency, percentages and ANOVA (analysis of variance) was used for analyzing the questionnaire. Frequency and percentages was used to analyze the demographic data of the respondents, frequency and percentages was used in analyzing the research questions while Analysis of Variance (ANOVA) was used in testing the hypotheses.

Results and Discussion

Test of Hypothesis

Hypothesis One

There is no significant difference in the opinions of the head teachers, teachers and parents on the causes of conflict in Primary Schools in Kaura Local Government Area of Kaduna State.

Table 1: Summary of one way analysis of variance (ANOVA) on the Causes of Conflicts in Primary Schools in Kaura Local Government Area of Kaduna State.

Status	Sum of square	Df	Mean square	F Calculated	P. Value	F critical
Between Groups	1989.624	2	994.395	14.053	.000	4.95
Within groups	11680.084	165	70.788			
Total	13669.708	167				

The test indicated that there was a significant difference in the opinions of respondents i.e F-ratio value (14.053) at 2df 165 and at the level 0.05. The critical value (4.95) is less than F ratio value (14.053). The probability level of significance P (.000) is less than 0.05. This means that there is a significance difference in the opinion of the Head Teachers, Teachers and Parents on the causes of conflict in Kaura Local Government Area of Kaduna State. Therefore, the hypothesis is rejected, meaning that there is a significant difference in the opinion of the respondents on the causes of conflict in Kaura Local Government Area of Kaduna State.

Hypothesis Two

There is no significant difference in the opinions of the Head Teachers, Teachers and Parents on the types of conflicts in Primary Schools in Kaura Local Government Area of Kaduna State.

Table 2: Summary of one way analysis of variance (ANOVA) on the types of conflicts in Primary Schools in Kaura Local Government Area of Kaduna State.

Statujs	Sum of square	Df	Mean square	F Calculated	P. Value	F critical
Between Groups	962.790	2	481.395	4.337	.015	4.95
Within groups	18315.084	165	111.003			
Total	19278.280	167				

The test indicated that there was no significant difference in the opinions of respondents i.e F-ration value (4.337) at 2df 165 and at the level 0.05. The critical value (4.95) is more than F ration value (4.337). The probability level of significance P (.015) is more than 0.05. This means that there is no significance difference in the opinion of the Head Teachers, Teachers and Parents on the types of conflicts in Primary Schools in Kaura Local Government Area of Kaduna State. Therefore, the hypothesis is retained, meaning that there is no significant difference in the opinion of the respondents on the types of conflicts in Primary Schools in Kaura Local Government Area of Kaduna State.

Hypothesis Three

There is no significant difference in the opinions of the Head Teachers, Teachers and Parents on the effects of conflicts in Primary Schools in Kaura Local Government Area of Kaduna State.

Table 3: Summary of one way analysis of variance (ANOVA) on the Effect of Conflicts in Primary Schools in Kaura Local Government Area of Kaduna State.

Status	Sum of square	Df	Mean square	F Calculated	P. Value	F critical
Between Groups	362.401	2	181.200	6.623	.002	4.95
Within groups	4514.075	165	27.358			
Total	4876.476	167				

The test indicated that there was a significant difference in the opinions of respondents i.e F-ration value (6.623) at 2df 165 and at the level 0.05. The critical value (4.95) is less than F ration value (6.623). The probability level of significance P (.002) is less than 0.05. This means that there is a significance difference in the opinion of Head Teachers, Teachers and Parents on the effects on conflict in Primary Schools in Kaura Local Government Area of Kaduna State. Therefore, the hypothesis is rejected, meaning that there is a significant difference in the opinion of the respondents on the effects on conflict in Primary Schools in Kaura Local Government Area of Kaduna State.

Hypothesis Four

There is no significant difference in the opinions of the Head Teachers, Teachers and Parents on the methods of managing Conflicts in Primary Schools in Kaura Local Government Area of Kaduna State.

Table 4: Summary of one way analysis of variance (ANOVA) on the methods of managing conflict in Kaura Local Government Area of Kaduna State.

Status	Sum of square	Df	Mean square	F Calculated	P. Value	F critical
Between Groups	1353.926	2	676.963	22.207	.000	4.95
Within groups	5029.925	165	30.484			
Total	6383.851	167				

The test indicated that there was a significant difference in the opinions of respondents i.e F-ration value (22.207) at 2df 165 and at the level 0.05. The critical value (4.95) is less than F ration value (22.207). The

probability level of significance $P (.000)$ is less than 0.05. This means that there is a significance difference in the opinion of Head Teachers, Teachers and Parents on the methods of managing conflict in Kaura Local Government Area of Kaduna State. Therefore, the hypothesis is rejected, meaning that there is a significant difference in the opinion of the respondents on the methods of managing conflicts in Kaura Local Government Area of Kaduna State.

Summary of the Major Findings

The following are the summary of the findings after analyzing the data collected

- i. It was discovered that bad leadership, disobedience and communication breakdown were the causes of conflicts in primary schools in Kaura LGA, Kaduna State.
- ii. That pupil-pupil, pupil-teacher, teacher-teacher, teacher- head teacher, and teacher-parents are the main types of conflict in primary schools in kaura LGEA
- iii. It has been found out that conflict has affected the effectiveness of teaching and learning, low morale among teachers and pupils, and also caused indiscipline in some of the schools in Kaura LGA, Kaduna State.
- iv. The methods used to resolved conflict in the selected primary schools in Kaura LGA, Kaduna State were effective guidance and counseling, sincerity and openness in the schools, fair hearing at all times to the two parties involved in conflicts in the schools.

Conclusion

It was found that there was a significant difference among the respondents on the causes of conflicts in primary schools in Kaura Local Government Area of Kaduna State. It was found that bad leadership is one of the cause, disobedience on the part of the pupils is also another reason for conflict, communication breakdown leads to conflicts, disagreement between head teacher and teachers leads to conflict, and un healthy competition between teachers can result to conflict in Primary Schools. More so, it was revealed that there was no significant difference among the respondents on the types of conflicts in primary school in Kaura Local Government Area of Kaduna State. Responses also showed that jealousy among pupils, rivalry between head teacher and teachers, faoviritism in the schools, misunderstanding among teachers and teasing of pupils are some of the types of conflicts experienced in Primary Schools in Kaura Local Government Area of Kaduna State. The findings showed that there was a significant difference among the respondents on the effects of conflicts in the management of primary schools in Kaura Local Government Area of Kaduna State. The respondents also agreed those effects in effectiveness in teaching and learning, low morale among teachers and pupils in the schools, leadership problems, and indiscipline in schools, delinquency among pupils, enmity and hatred in the schools. And finally, there was a significant difference among the respondents the methods of resolving conflict in primary schools in Kaura Local Government Area of Kaduna State. The result also showed that the following are the methods of resolving conflict, effective communication channel in the schools, awareness programmes, effective guidance and counseling programmes, sincerity and openness in the schools, fair hearing at all times in the school.

Recommendations

The following recommendations were suggested in line with the objectives of the study;

- i. The head teachers should avoid bad leadership, disobedience to school rules and regulations, communication breakdown, unresolved problems, use of offensive language, and competitions among teachers in their schools at all times in order to reduce the causes of conflicts.
- ii. Teacher-teacher, teacher-pupil, pupil-pupil, teacher-parent, and teacher-head teacher conflicts should be avoided in primary schools at all times in order to have a smooth running of the school activities.
- iii. Head teachers should ensure that conflicts is brought down to it minimal level to enhance the effectiveness of teaching and learning, to raise the morale of teachers and pupils, to reduce indiscipline, to maintain unity and to reduce delinquency among pupils in some of the selected primary schools.
- iv. Head teachers should encourage effective communication, create awareness, effective guidance and counseling, sincerity and openness in the schools, fair hearing at all times to the two parties involved in conflict in the schools.

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Educational Experimental Research Design: Investigating the Effect of “PAD + Microlectures” EAP Teaching Model on Chinese Undergraduates’ Critical Thinking Development

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Abstract

This paper presents an educational, experimental research design, aiming at examining the effect of "PAD + microlectures" EAP teaching model on Chinese undergraduates' critical thinking development. It mainly analyzes this experiment from four aspects: research question and hypotheses, difficulties in key term definitions and selection of measuring instruments, potential risks of the design, as well as the challenge of ethics. Such a methodological analysis shows that educational experiments should follow the disciplines of objectivity, feasibility, maneuverability, effectiveness, and innovation.

Key Words: Critical thinking, PAD, Microlecture, English teaching, Academic English

1. Introduction

Critical thinking, a buzzword in both educational and academic fields (Fisher 2001, p.1), has been concerned by the Chinese higher education sector. Previous studies (Luo & Yang 2001; He 2005; Yao 2001) have indicated that western undergraduates usually achieve better results than Chinese ones in critical thinking tests. This finding reveals a dire threat to Chinese undergraduates' cognitive development. In order to reduce this threat, many Chinese universities have begun to embed critical thinking training in their subject courses, aimed at formulating effective learning strategies for their students. In contrast, Chinese undergraduates' English courses are still lack of critical thinking element (Sun, 2011). Under such a circumstance, with an increased interest in improving undergraduates' critical thinking in the English context, the curriculum of English for academic purpose (EAP) is developed. After all, high-level thoughts necessarily involve language. However, so far, little empirical research has been conducted on the teaching effects of EAP courses at Chinese universities.

In order to enhance undergraduates' engagement in English learning through computer-assisted language learning (CALL), an increasing number of Chinese college English teachers began to navigate new ICT models to obtain a better effect of their English teaching. Therefore, some newly established models like MOOCs and flipped class have been introduced and widespread over the last five years (Chen, Wang, and Jiang, 2015, p.67). Not only have the media announced them on a large scale, but also more educational research has been involved in them. Nevertheless, when these models are used as main teaching forms in practice, teachers and universities

are facing new difficulties in funding and infrastructure. Thus, the reform of college English teaching in China should consider the status quo of students, teachers, and universities.

In this case, a “PAD + microlectures” model was created, which aims at combining the PAD class with microlecture resources in order to improve Chinese non-English major undergraduates’ academic English. PAD class is a Chinese original teaching philosophy, created by Professor Zhang Xuexin at Fudan University. It separates the teaching process into three steps: presentation, assimilation, and discussion, which emphasizes the formative assessment and avoids cramming. Its essence is to divide the class time into halves, half for teachers’ teaching, the other half for students’ discussion. There is a week for students to assimilate the teaching contents between the aforementioned halves (Zhang, 2017). Although it is mainly student-centered, still retains the teachers’ guidance in class, which is an advantage of the traditional teaching method. The microlecture prototype was from the United States. In China, it is defined as video-recorded teaching activities concentrating on small and specific contents, aiming at helping students learn better (NUTNTC, 2014). It can be used as supplementary teaching and learning resource. To some extent, combining PAD and microlectures can not only develop students’ thinking effectively in class but also provide diverse materials for their language learning after class. Although some Chinese scholars (Zhang, 2016; Zhao, 2016; Wei, 2016) and college English teachers argue that this model is feasible because it has no class-size or workload restrictions, there still seems to be little empirical research on this model’s effect in the context of EAP teaching.

Given the lack of empirical investigations into the teaching effects of “PAD + microlectures” EAP courses on Chinese undergraduates’ critical thinking disposition, I attempt to evaluate such a topic experimentally. This paper seeks to identify the potential problems that might threaten the success of my experimental project and discuss how these problems might be minimised or averted. The findings of such a methodological analysis may provide some references for educational researchers.

2. The research question and hypotheses

Research questions and hypotheses are vital preconditions of research designs. Cresswell (2003) argues that the formulation of research purposes relies on those questions and hypotheses to be answered and tested. Only when these questions or assumptions are clearly outlined can researchers know how they should shape their research purposes. The main research question of my study is: ‘What is the impact of “PAD + microlectures” teaching model on undergraduates’ critical thinking ability?’ The purpose of my experiment is to measure the critical thinking dispositional change in undergraduates after being taught by “PAD + microlectures” in their academic English classes. Because ‘hypotheses are typically used in experiments in which investigators compare groups’ (Cresswell 2003, p.108), I specify the research question into the following pertinent hypotheses for testing.

H1: There is a significant difference in the critical thinking enhancement between the two treatment groups and two control groups.

H2: The critical thinking enhancement of the highest critical thinking students (20% of the sample) and the lowest ones are diverse (20% of the sample). The latter is more significant.

H3: The analytic and systematic thinking styles of the students in the treatment groups are significantly higher than those in the control groups.

3. Difficulties in the Definition of the Terms and the Selection of the Measuring Instruments

Providing definitions of the relevant terms ought to be considered as the first challenge in a piece of research because the readers need to understand their precise meanings. The most important term in my proposed study is ‘critical thinking.’ With respect to this term, John Dewey, the ‘father’ of the modern critical thinking tradition (Fisher 2001, p.2), defined ‘critical thinking’ as:

An active, persistent, and careful consideration of a belief or supposed form of knowledge in the light of the grounds which support it and the further conclusions to which it tends (Dewey 1909, p. 9).

Dewey thought that critical thinking should be regarded as ‘a form of purposeful judgment, specifically reflective judgment’ (Fisher 2001, p.3). We can also identify from this definition that critical thinking has huge

importance for reasoning, and ‘skillful reasoning is a key element’ (2001, p.3). It involves acquiring and assessing information to draw a well-justified conclusion. However, as a term definition, Dewey’s explanation is abstract to the readers. The words ‘active, persistent, and careful’ are perceptual and difficult to measure. In order to make these adjectives clearer, Paul and Elder (2006) regard critical thinking as an art, arguing that it is a process of analyzing and evaluating thinking with a view to improving it. In other words, it requires a questioning approach to knowledge and perceived wisdom. To some extent, this definition is much more specific because the words are not abstract but familiar to readers.

Another difficulty is the selection of measuring instruments. Although a considerable number of measures are available for critical thinking, I need to consider the range, subject, and feasibility of each measure. The California Critical Thinking Disposition Inventory (CCTDI) is widely used for the assessment of university students’ critical thinking capacities. There follows a description of it.

The inventory consists of 75 questions that represent 7 scales: truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, and cognitive maturity. These 7 ‘habits of mind’ can be thought of as the elements in our character that impel us toward using critical thinking skills. Each scale has subscales that are totaled for the student score. In addition, there is a total score from all 7 scales. For each subscale, a score below the cut score of 40 represents a general weakness in that area, while a score above the cut score of 50 indicates consistent strength in that area. A total score below 280 shows serious overall deficiencies in the student’s disposition to think critically, while a score greater than 350 shows an overall strength (Phillips et al.2004, p.2).

It can be seen that the inventory measures both critical thinking skills and the disposition to think critically. The instruments of the CCTDI, including its Chinese version, have been shown to be highly valid and reliable (Luo &Yang 2001, p.51; Liu & Jin 2012, p.106). Therefore, I intend to use this inventory as an instrument for experimental pretest and posttest.

4. Potential Risks of the Experimental Design

The nature of educational experiments should be to confirm the correlation between educational phenomena through quantifying. The proposed experiment will adopt a randomized Solomon four-group design because it provides ‘the best control of the threats to internal validity and will result in adequate statistical power’ (Fraenkel & Wallen 1990, p.238). The measurements or observations are collected at the same time for all groups. The diagram of this design is as follows:

Table 1. The Solomon four-group design

Group		Pretest	Treatment	Posttest
1	R	O	X	O
2	R	O		O
3	R		X	O
4	R			O

Note. R=randomization, O=outcome measure, X=treatment.

A shortcoming of this design is that it requires a large sample, and conducting a study involving four groups at the same time requires a considerable amount of energy and effort on the part of the researcher (Campbell & Stanley 1963; Fraenkel & Wallen 1990). However, this EAP course will last for a whole year (first semester for treatment groups and second semester for control groups¹) and a lecturer of psychology will help me to monitor the experimental process and decode the data, so there must be enough time and people available to do that.

The second stage of the design is to determine the variables. According to the assumptions, the only optional variable (independent variable) of the experiment is the students involved in the critical thinking training course. The students in the control groups are individual learning students. They are in their natural state of self-

¹ ‘The Challenge of Ethics’ section will provide the details.

development and maturity, not having taken any critical thinking training. Dependent variables are the change in the overall disposition of the students' critical thinking and the changes in various components ('seven scales' of the CCTDI).

Nevertheless, some extraneous variables may prove to be the potential risks that threaten the final experimental results. In my proposed experiment, the extraneous variables will be considered from six aspects: social factors, family background, learning environment, course content, teachers and students' self-factors. The subjects are fresh second-year undergraduates. These students have experienced one year of campus life and have been exposed to the same environment. They follow the same educational system and teaching orientation. The concept of teaching and learning are almost consistent for them. Moreover, they have been living and studying together for a year, and they influence one another. All of these situations can keep these extraneous variables like social factors and family background constant. Furthermore, the experimental area will be located in a teaching building at the Southern University of Science and Technology in China. The treatment groups will attend the same EAP course developed by the Center for Language Education and be taught by the same teacher, so the learning environment, course content, and teachers are also constant. As for the students' own characteristics, such as their age and gender, I will create an inner group balance (Fraenkel & Wallen 1990, p.135).

After the determination of the variables, the sampling procedure becomes the next problem in the research, requiring special attention. Although drawing conclusions about a population after studying a sample is never completely satisfactory (Fraenkel & Wallen 1990, p.79), the diversity between the sample and the target population is likely to be insignificant if the sample is randomly selected and of sufficient size. On account of the quantitative nature of this research, probability sampling will be used to select students. Meanwhile, economic factors and practical principles should also be taken into account.

In order to guarantee the external validity of this study, the sample should be of sufficient size to satisfy the statistical demand and represent the population. The population consists of 1035 second-year undergraduates studying science and engineering subjects at Southern University of Science and Technology. A representative sample will be selected from the population as research subjects. One concern associated with the sampling method is that there are a few guidelines with regard to the minimum number of subjects needed. If the sample size of quantitative studies is calculated using a sample size calculator provided by the global panels of the GMI², the sample should consist of at least 340³ individuals. However, the characteristics of experimental research and the frequent interaction on the critical thinking course determine that the sample cannot be too large to avoid affecting the teaching effects. Fraenkel and Wallen (1990) recommend that the minimum number of subjects should be 30 individuals⁴ per group for experimental study. To solve the problem related to the sample size calculation, I believe that this recommendation can maintain the balance between effective treatment and statistical demand. In view of this, two alternative sampling strategies can be adopted.

Table 2. Alternative sampling strategies

Option A:	Option B:
1. Conduct norm-referenced tests among all 1035 2 nd -year undergraduates.	1. Adopt stratified sampling to select 120 students from 13 departments for the experiment.
2. Randomly select 150 students from them and make equal assignments to the treatment groups and control groups. ⁵ Match students according to certain variables to maintain the balance of group characteristics.	2. Match students according to certain variables and make equal assignments to the treatment groups and control groups.

The first option aims at controlling the effect of pretest on the experimental results, but the sample size is relatively large. 1035 students will receive the pretest and 150 will receive the posttest. The number of students

² GMI: Global Integrated Solutions for Market intelligence

³ It is with a confidence level of 95% and a confidence interval of 3.

⁴ In the statistics, a sample size of more than 30 individuals qualifies as a big sample (Wang 2001, p. 12).

⁵ It is a 125% selection to prevent subjects being lost and guarantee at least 30 individuals per group.

who receive the pretest is too large to manage, and this sampling method's cost is too high. The second option is easy to manipulate because of the small sample size and low cost, but it will lose subjects during the selection process, and the norm cannot be established. Thus, it cannot be regarded as a sampling technique that offers high external validity.

To overcome these weaknesses and ensure that the sample complies with the statistical disciplines, I decided to use the following sampling procedure. First of all, pilot sampling was conducted to test its feasibility. If it is feasible, stratified random sampling will be adopted to select a sample of 150 as the norm from 1035 second-year undergraduates (the target population). The sampling rate depends on the percentage of individuals in each department. For example, there are 26 individuals at the Department of Physics and 61 in the Department of Biology, and the sampling rate will be calculated as follows:

$$\% \text{ Physics} = (26/1035) \times 100 \approx 3$$

$$\% \text{ Biology} = (61/1035) \times 100 \approx 6$$

Then, they will be randomly and equally assigned into four groups (two groups are the treatment groups while the other two are the control groups.) and balance them in terms of their gender and age. According to the results of the pilot sampling test, this sampling method is not only in line with the statistical principles, but also the sample will be more representative of the population and reduces the costs.

Another potential problem in this study is that the data analysis of the Solomon four-group design lacks certainty concerning the proper statistical treatment and is constantly disputed by researchers. This forms another problem for my study. Campbell and Stanley (1963) made some preliminary suggestions based on its statistics but still neglected many details. In terms of my research, all possibilities that may arise in my data analysis should be carefully considered.

If the effect of pretest or the interaction between pretest and treatment could be neglected, the data will be analyzed by a one-way analysis of variance (ANOVA) to test and compare the posttest means of the four groups. If the effect of pretest cannot be confirmed, the test will be a two-group analysis of covariance (ANCOVA) in the posttest scores to compare the treatment group and the control group regarding pretests, covarying the pretest scores. At the same time, the T-test will be used for the treatment group and the control group without pretest. How to combine these two tests used to be a difficulty, but it has been solved by a meta-analytic approach (Glass 1978). If the ANCOVA and T-tests both reached the significant levels, the results of the experiments should be affirmed. Otherwise, I have to consider the effect of pretest and the interaction between pretest and treatment. The test for this would be a 2×2 ANOVA (Table 3). The means in the horizontal grids can be considered as the main effect of treatment. The means of the outcome measures in the column can be regarded as the main effect of the pretest. The means in the cross-lattice can be considered as the experimental interaction:

Table 3. 2×2 analysis of posttest scores

	Treatment groups	Control groups
With pre-test	O1	O3
Without pre-test	O2	O4

Note. O = outcome measure

5. The Challenge of Ethics

Many ethical issues arise during the stage of the data collection and analysis in an educational experiment. The bigger challenge facing any use of experimental designs in educational research may be 'an ethical rather than a technical one' (Gorard 2001, p. 144).

Above all, researchers need to respect the participants in research (Cohen *et al.* 2007). In this study, all of the groups of students must be guaranteed to participate voluntarily and have the right to withdraw at any time, so that 'the individual is not being coerced into participation' (Cresswell 2003, p.64). Nevertheless, this may lead to the insufficient samples and seriously affect the results of the experiment, which should be avoided to the best of the researcher's ability before and during the experiment. Therefore, maintaining the balance between the

experimental design and ethical consideration is crucial to the success of the experiment. In terms of the real situation, I carefully designed the sampling approaches and will conduct pilot sampling. In addition, testing the experimental results twice and giving the participants' rewards will also be used to control the withdrawal of the students. Participants also have the right to know the purpose, procedure, and benefits of my study, so that they can understand the nature of the experiment, and know what to anticipate and its likely impact on them.

At the stage of the data collection, I need to anticipate 'the possibility of harmful information being disclosed during the data collection process' (Cresswell 2003, p. 65). In this situation, the privacy of the individuals involved in my experiment ought to be protected. In the interpretation of the data, although I should provide an accurate account of the data, the anonymity of individuals, roles, and incidents in my project should also be considered. The language or words that are biased against persons because of their age, gender, racial group, or disability, should not appear in my description, although some of them may be vital to my research. Once the analysis is finished, the data from my experiment will be discarded in order to avoid it falling into others' hands for other purposes.

The final important issue relating to ethics is unique to experimental studies. It is that the experiment should not be discriminatory (Gorard 2001, p.146). The "PAD + microlectures" EAP teaching model is supposed to be helpful for Chinese undergraduate students' learning. I need to collect data and continue the treatment so that all of the participants, including both the treatment and control groups, ultimately receive the benefits of the EAP courses with such a model.

6. Conclusion

From the above analysis, it has been shown that the topic of the educational experiment should have both theoretical and practical value. This value enables the research to be significant in terms of generalization and future guidance. With respect to the hypotheses, all of them should employ certain testing methods. If researchers cannot find suitable methods for testing the hypotheses during the experimental process, those hypotheses must be laid aside and lose their significance. What is more, the most rigorous form of experimental research should be conducted using effective instruments.

In addition, the control of the extraneous variables is an integral part of the experimental procedure. Sampling strategies cannot be employed only for their convenient and easy manipulation, but should also be concentrated on the validity and reliability of the samples. In quantitative studies, the samples should be large enough to generalize the findings using statistical techniques. As for the data analysis, the methods and accuracy should be considered at the same time in order to guarantee the validity and reliability of the experimental results, so that they are ready for the hypotheses' testing. Then, any ethical issues arising from the process of the experiment ought to be immediately noticed and well handled. In conclusion, all of the experimental education designs should follow the five disciplines: 'objectivity, feasibility, maneuverability, effectiveness and innovation' (Dai 1986).

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Teacher Retention Motivation Strategies in Ghana

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Abstract

The study examined how motivational strategies are retaining teachers in schools in the Wa West district of the Upper West Region of Ghana. The qualitative method was adopted, and simple random, cluster and purposive sampling were used to select the 120 sample size for the study. Questionnaires were used for data collection. Trained teachers were targeted in this study. The study found recruitment of teachers from deprived areas as weak to keep teachers in deprived areas whilst enhancement in study leave and sponsorship programs, enhancement of teachers' accommodation and improvement in social amenities in deprived areas were strong reasons to keep teachers in the district.

Key Words: Teacher, Retention, Strategies, Motivation, Intrinsic, Extrinsic

Introduction

Education is the key to the development of the skilled workforce of nations worldwide. It is key to restoring long-term growth, tackling illiteracy, unemployment, inequality, poverty and promoting cohesion in societies (OECD, 2014). The Education for All Global Monitoring Report (2015) stipulated that the World Declaration on Education for All (EFA) adopted in Jomtien, Thailand, in 1990 mandated countries to see education as a basic right and to vigorously develop and implement policies that would ensure education for all. The report further explained that universal access to primary education became the foundation for developing the individual in order to be fruitful to him or herself and the society at large. Education must offer equal opportunities for both urban and rural residence. Therefore, in 2000, the World Education Forum adopted the Dakar Framework for Action, that is "Education for All: Meeting our Collective Commitments." This was for participants to reaffirm their commitment to the World Declaration on Education for All adopted in 1990 (Education for All Global Monitoring Report, 2015). The United Nations Development Program statistics cited in the work of Segun and Olanrewaju (2011) indicated that nowhere in the world do teachers work in more challenging situations than deprived areas in African countries and that Sub-Saharan Africa would have increased

its rural population from approximately 470 million in 2005 to 552 million in 2015. Educating this large population on the continent requires motivating teachers to attract and retain them in deprived areas (Segun and Olanrewaju, 2011).

All though there is an increase in pupils' enrolment in basic schools, there is still a shortage of 1.6 million trained teachers which can increase to 3.8 million, if teacher retirements are taken into consideration (Segun and Olanrewaju, 2011). They noted that there is a drastic reduction of the trained teacher in African countries and that there is the need to increase the number of teachers from 2.4 million in 2006 to 4 million in other to improve the teacher to student ratio in basic schools. Worldwide, primary education systems employed more than 29 million teachers in 2012, with 82% of that in developing countries (Education for All Global Monitoring Report 2015). The total primary teaching staff increased by 17% between 1999 and 2012, or by about 4 million teachers. The largest increase occurred in Sub-Saharan Africa and the Arab States, and yet 23.9 million teachers are required between 2012 and 2030 across the world. The need for trained teachers in deprived areas is not about just the numbers, but equally important in ensuring that they are motivated and retained in rural areas such as Wa West District. If the incentives of teachers in the deprived areas are improved, they will be motivated to accept postings and stay in these deprived areas where their services are required. The government of Ghana has over the years implemented policies to improve access and quality at the basic level but lesser attention is being given to teacher motivation which is one of the crucial element to promote a high sense of teacher motivation, dedication and commitment to duty, and improve teacher retention rate in the deprived districts in the country. It is argued that the Ghanaian rural teacher today is grappling with many motivational challenges with the increased in enrolment of pupils which makes them reluctant to accept postings to deprived areas (GES, 2014). The right to education for all and especially children in remote areas cannot be realized without motivated, trained teachers and yet, there exist these crucial motivational gaps of teachers for retention in deprived areas of the Wa West district. Also, the main reason for the gap in quality education between urban and rural areas is the severe lack of motivated, trained teachers in rural areas. It is the presence of quality teachers that determine the quality and quantity of learning at schools (Global Campaign for Education 2012).

The importance of teachers is recognized by all stakeholders in education yet huge gaps in the trained teachers and their motivation in deprived areas remained unattended to. Despite the efforts of both developed and developing countries' governments' efforts such as the International Task Force on Teachers for EFA established in 2009 in recognition of the trained teacher crisis, there are still millions of teachers away from guaranteeing sufficient trained teachers for all children. The United Nations Educational, Scientific and Cultural Organization Institute for Statistics estimates that more than 1.7 million additional trained teachers are needed, irrespective of the gains in many countries in addressing the trained teachers' gap. The right to education necessarily implies both equity and quality: everyone has a right to education, and that education must amount to something substantial. One major way to guarantee this is to ensure that there are enough trained and motivated teachers for every child, and therefore, if the right to education is to mean anything at all, it must at least mean this (Global Campaign for Education, 2012).

Teachers are the key players in promoting quality education, whether in schools or at the community level since teachers are both the advocates for and catalysts of change. Therefore, it is undeniable fact that the motivation of teachers for retention must take center stage in any educational reform if rural folks are to have universal and equal access to educational opportunities. Rural teachers should be respected and adequately motivated; have enhanced salaries, access to training for their professional development through enhanced study leave and sponsorship programs, access to decent accommodation, and have opportunities for social amenities and community support to participate locally and nationally in decisions affecting their professional lives and working environments (World Education Forum, 2000).

Gatsinzi and Ndiku (2014) suggested that teachers get satisfied and highly motivated when they are acknowledged by other people including the school leadership, valuing their rendered services and commitment to the service. The recognition should not come only from immediate superiors like the school and district education management but also from higher authorities such as regional and national education management.

Similarly, Nzulwa (2014) study confirmed that teacher motivation is due to love for their job, a sense of feeling, a moral responsibility, and obligations to perform their duties as members of society. This will not work for some teachers in the district who are burdened by economic pressure and not able to meet their families' budget. Also, Akuoko et al. (2012) study confirmed that only 7.9% of teacher respondents were motivated by recognition and respect. However, one should not be surprised, the rising cost of living is having a toll on teachers, diminishing their intrinsic love for teaching for extrinsic rewards. Akuoko, Dwumah, and Baba also stated that 5.6% of teacher respondents opted for academic performance as a factor of motivation. This revelation clearly indicates that the academic performance of pupils is becoming a non-motivational factor for teachers. The reality is that the low salary level of teachers increases their economic hardship shrinking their students' performance motivation for material interest.

Additionally, the finding of Dörnyei's (2001) cited in Akuoko et al. (2012) study found a significant relationship between intrinsic motivation and teaching where an internal desire to educate people, to give knowledge and value is always in teaching as a vocational goal. Another intrinsic motivational strategy is an enhancement in job security. World Bank (2007) said to increase stability in remuneration, appointments, and lack of fear or threat of dismissal guarantees job security. Teachers should not also be threatened to be denied promotions. As such, newly trained teachers who passed their professional exams back at their training institutions should not be kept on probation over two years without being confirmed. Guaranteeing of job security by confirming them will motivate newly trained teachers as professionals to be retained in rural areas. This is because professionals who remain at a particular level or kept temporary for a long time may be frustrated and resist being retained in rural areas.

According to Ghana Education Service (2014) report, teachers who pursue regular courses without study leave and study leave beneficiary teachers whose courses span beyond four years, for example, if one defers his or her course risk their salaries blocked and subsequently their names deleted from the payroll. This will address concerns of respondents in a survey by Ghana National Association of Teachers (2010) cited in the work of Darvas and Balwanz (2014) where close to 60% of the respondents said the poor conditions of service in teaching would make them leave their jobs for improved conditions in other jobs. Conditions of service are the benefits one enjoys from the service (Agboada & Akubia, 2010). Unfortunately, these benefits are general and available to all teachers with none targeting teachers in rural areas exclusively. Therefore, Mandina (2012) argued that these benefits must rather be targeted and the value for each condition of service increased.

Acheampong & Asamoah (2015) indicated that the condition of service of teachers in deprived areas must outweigh their urban counterparts. To get the best value from incentives, they need to be carefully targeted on the most deprived schools in the Wa West District. Improvement in further training and promotion is one of the extrinsic motivational strategies. Muhammad et al. (2010) argued vehemently that training promotes the growth and development of employees. It refreshes the knowledge and skills of teachers to work effectively with more courage and confidence. Career development plays a significant role in motivating teachers as they always want to improve their qualification (Muhammad et al. 2010). Teachers in deprived communities should be allowed to benefit from enhanced professional programs and promotion than their urban colleague. The government must absorb the cost of all rural teachers pursuing education courses on distance learning, part-time, sandwich bases as well as regular programs. Rural teachers in the district may prefer distance learning and sandwich programs to regular courses for fear of forfeiting their salaries. In Ghana Education Service, regular courses require the respective teachers to be granted study leave, which is usually based on a limited quota system.

Bennell and Akyeampong (2007) confirmed that being able to upgrade one's qualifications is a critically important incentive since it is the only way to improve incomes significantly and offers the opportunity for further promotions. However, over-reliance on teachers' certification requirements can diminish a pool of applicants who may have practical and even teaching experience without certificates. Bennell and Akyeampong also noted that promotion criteria should be transparent and rural teachers should be given the minimum years to be promoted, though qualifications and years of service cannot be ignored. The promotion process should be

based on merit but with a premium placed on rural teachers. The pay margins for these promotion levels should be enticing enough and paid on time to beneficiary teachers to boost their morale.

Also, enhancement in salaries linked with qualification is one of the extrinsic motivational strategies for teacher motivation for retention in rural areas of the district. World Bank (2007) observed that increasing teachers' salaries appear to be the obvious response to teacher retention in rural areas. This corroborates with Monk (2007), Muhammad et al. (2010) studies which asserted that higher salaries, wages, and compensation benefits would attract and retain teachers in deprived areas. For this reason, the government should not just pay salaries to rural teachers but enhanced allowances as well. Higher salaries and allowances for rural teachers will attract a comparable pool of teacher applicants to rural areas even from urban centers. Corresponding to this, Monk (2007) stated that one main source of improving the working conditions of teachers lie in enhanced salaries and wages.

Mulkeen (2010) opined that linking salary to qualifications certainly provides an incentive for teachers to upgrade their qualifications. It is most unfortunate that the Ghana Education Service within its salary structure has no salary scale for Masters' degree holders (GES Newsletter, 2015). Therefore, it cannot be shocking that when teachers obtain this qualification, they seek a job in other sectors and quit the profession. However, the limited job opportunities in many developing countries like Ghana forced many masters' degree holders still within Ghana Education Service, and this is what Bennell and Akyeampong (2007) termed as the acute paucity of alternative employment opportunities. Mulkeen was quick to suggest that over-reliance on qualifications for pay rise may make rural teachers to neglect their duties for upgrading their qualifications. Unless there is strict supervision, teachers who take up distance learning programs may tend to prioritize their studies at the expense of their work. In addition, where teachers experience pay rise for improved qualifications, it can be difficult for the government to manage and predict teacher's payroll costs.

Mandina (2012) suggested other financial incentives such as tuition support, loan forgiveness, and signing bonuses. This is true in Ghana's situation where the government announced a 20% increase in rural teachers' salary as a hardship allowance, but this has since not been implemented due to financial constraints. However, Lyons (2009) said that younger teachers are more motivated by financial inducements such as rent subsidies, affordable housing, and allowances, which can be tied to bonded placements.

To add to, enhancement in teachers' accommodation is a major extrinsic motivational strategy for teacher retention in rural areas. Muhammad et al. (2010) said improving accommodation in deprived areas is needed to reduce the accommodation challenges teachers, particularly female ones face in rural areas. Where teachers cannot live near the school, they are likely to spend a lot of time commuting, often to the detriment of their school's work.

Darvas and Balwanz (2014) said providing teacher accommodation is worth considering but should be informed by the thorough needs assessment. Many young teachers working in rural schools prefer to live in urban areas with their families. Therefore, the mass provision of teacher housing will not be cost-effective, unless the demand is guaranteed. For the sake of this attitude, rural communities must have a good rapport with their teachers and prevail upon them to accept to stay in the communities they teach.

Enhancement in study leave and sponsorship programs is another motivational strategy for teacher retention in deprived areas in the Wa West District. Darvas and Balwanz (2014) asserted that the district sponsorship scheme is another strategy for improving teacher deployment. It is a scheme where teacher trainees are sponsored by districts and the students then return to teach in the sponsored districts for at least three years upon completion of their training. It is disheartening that many of these district sponsorships are nowhere near the fees paid by beneficiaries at their training institutions. Even poorer districts may not still have the wherewithal to give such meager sponsorship to teachers for which they will attract a small number of newly trained teachers (Darvas and Balwanz, 2014).

The Wa West District should lobby for funds that will give adequate and comprehensive sponsorship to attract and retain teachers in rural areas of the district. The government should have a policy for financing at least one child education of every rural teacher. This will woo and retain teachers to rural areas of the Wa West District. This study, therefore, looks at teacher motivational strategies and how effective they are in retaining teachers in deprived rural areas in the Wa West district of the Upper West Region of Ghana.

Method

The qualitative method was adopted for this study. A sample size of one hundred and twenty (120) was used in this study. This comprised one hundred and twenty (120) trained teachers representing seventy-five percent (75%) of the total one hundred and forty-four trained teachers in the public Junior High Schools in the district. Even though the proportion of trained teachers is homogenous, the seventy-five percent (75%) representing one hundred and twenty (120) trained teachers were used to ensure representation of the trained teachers across every circuit in the district.

Cluster sampling method was used in selecting basic schools (primary and Junior high) from the district. Using the cluster sampling, the various Schools were grouped into 8 clusters called circuits. The various Schools in each circuit were considered as a cluster. From all the clusters or circuits, 40 schools were sampled using a simple random sampling technique. In each school, 5 teachers were chosen using the simple random sampling strategy again.

The questionnaires were designed and delivered to the respondents in all sampled 40 schools to solicit data from trained teachers. 120 questionnaires were given to respondents, and they were given 2 weeks to respond to the questionnaires at their own convenient time. Contact numbers were taken from respondents. Through the contacts, the researcher called respondents through phones to remind them weekly and clarified questions that respondents found not to be clear. Those who lived in areas where there is no mobile network were visited twice within the 2 weeks' period. The Likert scale with five levels was used: very strong, strong, fair, weak, very weak, coded as 5 to 1, respectively.

Results

For the purpose of this study, the motivational strategies were put into intrinsic and extrinsic after retrieving all 120 responses from the sampled trained teachers in the various schools within the Wa West district.

Intrinsic Motivational Strategies

The intrinsic motivational strategies the study looked at included enhancement in occupational recognition and status, promoting a passion for imparting knowledge and enhancement in job security. Table 1 shows the intrinsic motivational strategies

Table 1. *Intrinsic Motivational Strategies for Retention in basic schools in the Wa West district.*

INTRINSIC MOTIVATION	TEACHER RETENTION						Total Sample	Freq	%
	Very Strong	Strong	Fair	Weak	Very weak				
1.Enhancement in job recognition and status	(41) 34.1	(29) 24.1	(27) 23	(17) 14.1	(6) 5		120	100	

2.Promoting passion for imparting knowledge	(28) 23.3	(49) 41	(25) 21.3	(12) 10	(6) 5	120	100
3.Enhancement in job security	(38) 32	(30) 25	(26) 22	(18) 15	(8) 6.6	120	100

Values outside brackets are percentages, and those in brackets are frequencies.

Table 2. *Extrinsic Motivational Strategies for Retention in basic schools of the Wa West District.*

EXTRINSIC MOTIVATION	TEACHER RETENTION					TOTAL SAMPLE	
	VERY STRONG	STRONG	FAIR	WEAK	VERY WEAK		
1. Enhancement in salary linked with qualification	(71) 59.1	(35) 29	(11) 9	(4) 3.3	(1) 0.8	120	100
2. Enhancement in study leave and sponsorship	(85) 70.8	(21) 17.5	(10) 8.3	(4) 3.3	(1) 0.8	120	100
3. Improvement in further training and promotion	(68) 56.7	(40) 33.2	(9) 7.5	(3) 2.5	(1) 0.8	120	100
4. Enhancement of teachers' accommodation	(76) 63.3	(31) 25.8	(5) 4.2	(1) 0.8	(7) 5.8	120	100
5. Recruitment of rural teachers from rural areas	(17) 14.2	(16) 13.3	(34) 28.3	(25) 20.8	(28) 23.3	120	100
6. Enhancement in community participation in school management	(44) 36.7	(53) 44.2	(13) 10.8	(8) 6.7	(2) 1.7	120	100
7. Improvement in social amenities	(86) 71.7	(21) 17.5	(9) 7.5	(2) 1.7	(2) 1.7	120	100

Values in brackets are frequencies whiles values outside brackets are percentages

Discussion

From table 1 on intrinsic motivation, the study indicated that 34% of the teachers believed that enhancement in job recognition and status was very strong to motivate them to be retained in deprived areas. 24% said it was strong, 23% indicated it was fair, 14% said it was weak, and 5% said it was very weak to motivate them to be retained in deprived areas. It implies that teachers thought that respecting and acknowledging the contribution of

rural teachers boost their status for them to continue teaching in deprived areas. This goes in line with Gatsinzin and Ndiku (2014). However, the findings contradicted with Akuoko et al. (2012) findings in Tamale Metropolis that indicated that 8% of teachers got motivated by respect and recognition.

Again, the table showed that 23% and 41% of teachers believed that promoting a passion for imparting knowledge among rural students was very strong and strong respectively to encourage them to stay in deprived areas. About 21%, 10% and 5% of teachers believed that passion for imparting knowledge had fair, weak, and very weak motivational significance respectively in retaining them in deprived areas. This shows that most teachers still have the zeal in imparting knowledge which is evident in this study where 23% and 41% of teachers believed the strategy was very strong and strong respectively to motivate them to keep rendering their service in these deprived areas. This corresponds to Dörnyei's (2001) cited in Akuoko et al. (2012) study which revealed that there was a correlation between intrinsic motivation and teaching since most teachers are willing to teach. The table further showed that enhancement in job security had the potential of keeping teachers in deprived areas. About 32% of teachers believed that it was very strong, 25% agreed it is strong, and 22% of teacher viewed job security to have fair significance in keeping them in deprived areas. 15% of teachers considered it weak and close to 7% of teachers thought it is weak to motivate them to continue teaching in deprived areas. Teachers concern for their job security came from the frequent deletion of names of teachers from the payroll. When teachers are posted or transferred to a new district, the education office in the new district has to transfer the teachers' salary within three months' period, and if it is not done, the teachers' names are treated as a ghost. These teachers would not get their salaries for the subsequent month or even months. The study also revealed that teachers on study leave whose courses of study spanned beyond the maximum four years for study leave without being granted more leave or teachers who go to school without study leave risk of being treated as a ghost and taken off from the payroll. Affected teachers are then asked to pay monies by the officers in charge of salaries to get their names back on the payroll which is corruption.

Extrinsic Motivational Strategies

The extrinsic motivational strategies comprised enhancement in study leave and sponsorship, improvement in further training and promotion, enhancement of teachers' accommodation, recruitment of rural teachers from rural areas, enhancement in community participation in school management and improvement in social amenities. Table 2 indicates the extrinsic motivational strategies.

From table 2, enhancement of salaries linked with qualification was one fundamental motivational strategy for keeping teachers in the Wa West district. The table revealed that a little over 59% of teachers considered this strategy to be very strong, 29% of the teachers said is strong, 9% of the teachers saw it be fair, a little over 3% of the respondents said it was weak, and 0.8% considered it to be very weak in keeping teachers in the district. The 59% for very strong and 29% for strong shows that salaries must not be joked with as it is the only source of income to most teachers in the district.

Enhancement in study leave and sponsorship programs was one of the motivational strategies to retain teachers in rural areas. A little Over 70% of teachers indicated that it was very strong, 17.5% considered it strong, 8.3% said it was fair, 3.3% of respondents answered that it was weak whilst 0.8% saw it be very weak in retaining them in the district. The endorsement of over 70% and 17.5% as very strong and strong respectively for study leave and district sponsorship programs shows that if the process was transparent, just and the quota increased for many teachers, they would be more than willing to keep teaching in the district. Once teachers knew that after the specified period of time they would be offered study leave or sponsorship for further studies, so many would move to the deprived districts such as Wa West. This implied that the government must give teachers in deprived areas full or partial scholarships to further their education. This finding goes in line Darvas and Balwanz (2014) study.

Also, improvement in further training and promotion was one motivational strategy for the retention of teachers in the district. On this strategy, 56.7% of the respondents said it was very strong to retain teachers in the district,

32.2% of teachers were of the view that it was strong to motivate them to continue teaching in the district, 7.5% said it was fair, 2.5% of the teachers indicated that it was weak and only 0.8% thought it was very weak to motivate them to be retained in the district. Thus, having had 56.7% and 32.8% of respondents endorsing this motivational strategy indicates that teachers in deprived areas want to enrich themselves with higher education and attain higher professional status. Therefore, teachers would accept postings and transfers to rural areas provided these places would not impede their desire for academic and professional progression. This required educational management to strictly enforce the two-year period for rural teachers to qualify to apply for study leave. Measures must be put in place to ensure that deserving teachers who really served the said time in the district are prioritized to be offered study leave no matter the quota offered to the district. Enhancement of teachers' accommodation was another motivational strategy for retention of teachers in rural areas of the Wa West district. Over 63 % saw it be very strong, almost 26% indicated it was strong, 4.2% of respondents were of the view that it was fair, 0.8 % of the respondents said it was weak, 5.8% think it is very weak in motivating them to be retained in the district. This confirms the results of the study conducted by (Muhammad et al., 2010 and Darvas & Balwanz, 2014). From the respondent's assertion, teachers resisting to be retained in rural areas was because of the poor targeting of rural teachers with motivational packages.

Also, when teachers remained to teach in their hometowns, their respective families would make a lot of demands on them. These demands include but not limited to providing monies for school fees, hospital bills, utility bills, buying foodstuffs, ingredients, funeral expenses, community development levy and conveying relatives to hospitals and other places.

As customs demand, these teachers would also be required to attend social gatherings such as funerals, weddings, naming ceremonies, festivals, and enskinment or enstoolment of chiefs and queen mothers. In many instances, the time these teachers used in attending to some of these social functions often conflicted with the instructional hours of their schools. This could affect the attendance of these teachers in school, and that could create conflict between the affected teachers and education management. These responsibilities drained and depleted such teachers' meager salaries, and they might not be able to cater to their immediate families and afford their cherished goods. Also, these teachers could draw on communal properties such as family land, house, television set and would take it for granted in acquiring these on their own. Therefore, these teachers could remain backward in terms of material wealth when compared with their counterparts who do not teach in their hometowns.

The study contradicted Monk (2007) "grow-your-strategy" and Segun and Olanrewaju (2011) study that recruiting rural teachers from rural areas was an antidote to retain teachers in rural areas since in this study greater respondents representing 28.3%, 20.3% and 23% of the respondents indicated that the strategy was fair, weak and very weak respectively to retain teachers in rural areas.

The study contradicted Bennell and Mukyanuzi (2005) touting locally based teachers as the panacea for teachers' unwillingness to be retained in rural areas as the 28.7% 21.3% and 23% of the respondents saw the strategy as fair, weak and very weak respectively to retain teachers in rural areas. Moreover, enhancement in community participation in school management was one of the motivational strategies for retention of teachers in the district. 36.7% and 44.2 % of teachers attested that it was very strong and strong respectively for retention of teachers in the district. 10.7% of respondents took it to be fair in retaining the teachers whilst 6.6%, and 1.6% of respondents respectively noted it to be weak and very weak respectively to retain teachers in rural areas.

This 36.7% and 44.2% of respondents attesting the strategy as very strong and strong respectively for teacher retention implied that schools that had effective PTA and SMC to provide school infrastructures such as classrooms, offices, tables, and chairs for both teachers and students would entice and retain teachers in rural communities in the district. This required the communities to make teachers' accommodation available, provide teaching and learning materials, visit the schools regularly to monitor children and partner teachers to instill discipline. The study findings coincided with Mulkeen (2010) findings which said that PTAs and SMCs had

important roles to play in developing the schools for teachers to be retained. The difficulty the study found among parents in rural areas to raise adequate PTA levies for the schools supported Bennell and Acheampong (2007) findings that some communities' contributions in school management left much to be desired.

Lastly, improvement in social amenities in rural areas was one of the motivational strategies confirmed by teachers to entice them to be retained in rural areas. 71.7% and 17.5% of teachers attested that the strategy was very strong and strong respectively to retain them in the district. 7.5% said it was fair to retain them, 1.7% of respondents noted it to be weak whilst another 1.7% of respondents took the strategy to be very weak to motivate them to be retained in rural areas of the district. The 71.7% and 17.5% of teachers indicating that the strategy was very strong and strong respectively signified that rural communities became competitive for teachers to stay when the government or the district assembly in collaboration with other development partners vigorously expand and extend social amenities to many of these rural communities.

Conclusion

It is worth to conclude that motivation is very important to ensuring retention of trained teachers in basic schools in the Wa West district. This would not only guarantee the right to education for the rural children but contributed to the achievement of the Free Compulsory Universal Basic Education (FCUBE) and the Education for All goals. A thorough analysis of the motivational strategies revealed that the extrinsic motivational strategies had stronger inducement on teacher retention in rural areas of the district than the intrinsic motivational strategies. Therefore, it behooves the government to develop, implement and enforce adequate extrinsic motivational policies that targeted the retention of teachers in rural areas. Otherwise, the achievement of the right to education, Education for All and Free Compulsory Universal Basic Education for rural folks would be a mirage.

In conclusion, retaining trained teachers in rural areas required right targeting of strategies, enforcement, and adequate motivational packages and policies. Thus, the lack of targeting, enforcement, and adequacy of motivational strategies resulted in teacher motivation for retention in basic schools in the Wa West district to "remain in a chronic state of decline" (GCE, 2005 as cited in Bennell and Akyeampong 2007).

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Teaching Citizenship with Art! Look at What I can Do – Do Not Look at What I Say!

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Abstract

This article will approach issues related to the teaching of the concept of citizenship according to Higher School of Education of the Polytechnic Institute of Viana do Castelo, Portugal. Through the analysis of artistic practices, we propose to determine how concepts of culture, heritage, education for development, service learning and human rights in society are addressed in curricular activities and how interdisciplinary perspectives are considered the appropriate way to such approaches in terms of Art Education in the 21st Century School.

Key Words: Citizenship, Education for Development, Service - Learning, Artistic Education

1. Introduction

The relevance of the emplacement dimension in the educational field is a current imperative. On the one hand, and in the face of global economic, social, political and cultural changes, that is, in the face of all the metamorphoses caused by a globalized world, it is emerging to foster values and attitudes associated with solidarity, social justice and human rights (Bayo, Loma, & Aristizábal, 2004). On the other hand, the transmission of purely disciplinary and sealed knowledge does not meet the current and future needs of a technological world, requiring that our students acquire the knowledge and skills to become citizens of a global community (Banks, 2004). To that end, today's school is designed to provide young people with the opportunity to construct a critical citizenship thinking (Gomes et al., 2017), promoting autonomous behavior, creating space for reflection and allowing the acquisition of new skills that will be useful life, signaling changes in the role of education to create more just, peaceful, tolerant and inclusive societies.

Celorio & López de Munain (2007) state that the educational process of learning must be critical and action-oriented. The teaching of content should allow students to develop different potentialities, skills, and processes of self-reflection, aiming at the formation of value judgments, the construction, and reconstruction of perspectives, experiences, and meanings. Faced with these changes, the teacher is expected to have a new role,

one that adapts the strategies to the needs of each student, differentiating the process of teaching and learning (Schleicher, 2012). Service learning is a pedagogical methodology that combines in a single activity the learning of contents, competences, and values with tasks of service to the community, and learning acquires a civic sense (Opazo et al., 2014).

Educating for Citizenship and Development: A Way Through Art

Thinking about citizenship and development implies recontextualizing education in the direction of a transformative path that educates citizens and commits them to social issues, capable of understanding the world in which we live and acting on it. We are faced with a resizing of the role of the School, an institution that needs to commit to a Global Education that is attentive to the realities of the world, allowing students to participate dynamically and conscientiously in the world's problems, targeting individual well-being, local and global (Boni, 2006).

"Global Education can open people's eyes and minds to the realities of the world, awakening them to contribute to a world with more justice, equity and human rights for all" (Maastricht Declaration on Global Education (2002)). When we talk about educating for citizenship and development we are providing the public school with tools to raise awareness, and combat inequality and social injustice. The assumption of these presuppositions implies flexibilization, curricular activities, and interdisciplinary perspectives. Education for Development is defined by us here not only as a concept related solely to economic growth but also as a means of strengthening intellectual, creative, affective, moral and spiritual capacities that can contribute to human development and project our future in an integrated way. In this relationship between the idea of Citizenship, Arts and Education for Development, we will reflect on the objectives and strategies and the associated benefits, as well as the experiences and solutions that result from it.

2. Political and Educational Framework

At the political and educational level, as mentioned previously, it is verified that the Ministry of Education has been insisting on the importance of the civic dimension in the educational field, as well as on the importance of a strategy that promotes the arts and culture in the school universe. The following legislative context supports the theoretical discussion presented.

National Educational Strategy for Development (NESD/ENED) - Promotion of Global Citizenship

The National Educational Strategy for Development (NESD/ENED) - Promotion of Global Citizenship was established by the Joint Order of the Ministry of Foreign Affairs and the Ministry of Education No. 25931/2009, of November 26th. It is a guiding document for school intervention in SD, with the purpose of promoting civic learning, current until 2016. The creation of a National Education Development Strategy was extremely important for Portugal since it makes community accountable for local actions that have a global impact. In fact, we changed from a traditional notion of citizenship that is very focused on the national dimensions of inclusion/exclusion to a dynamic that includes the complexity of migratory movements and globalization in all its aspects. Facing this context, a National Educational Strategy for Development is an instrument that facilitates the effective promotion of SD, contributing to the formation of citizens who take an active attitude before local and global injustices. It is intended, therefore, to promote, through learning, attitudes of global citizenship, sensitizing society to development issues. On July 5th, 2018, the new National Educational Strategy for Development 2018-2022 (NESD 2018-2022) was approved by the Council of Ministers. This new strategy succeeds the National Educational Strategy for Development 2010-2016 (NESD 2010-2016), aiming to respond to one of the main conclusions of its external evaluation, which proposes "to update the Strategy, given national

and international recognition of its social, political and educational relevance” (Diário da República, 2018, 3190). In addition, it is related to the approval, by the United Nations General Assembly, of the Resolution “Transforming Our World: The 2030 Agenda for Sustainable Development”, based on 17 Sustainable Development objectives. NESD 2018-2022 associates with Goal 4.7 of the Sustainable Development Objective 4 - Education:

by 2030, to ensure that all students acquire the knowledge and skills necessary to promote sustainable development, including, inter alia, education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and the contribution of culture to sustainable development (Diário da República, 2018, 3190)

Based on this objective, the XXIst Constitutional Government reinforced Citizenship in school curricula, and in 2017 it approved the National Education Strategy for Citizenship (NESC), with SD being one of the thematic areas of Education for Citizenship (Diário da Republic, 2018, p.331). Regarding the challenges our society is facing today, which are battling global problems of humanitarian crises, inequalities, climate change, and others, there is an urgent need to educate for the exercise of democratic citizenship.

In this sense, the creation of the discipline of Citizenship and Development is included as part of the curriculum, but with different settling throughout the mandatory schooling, being worked transversally in the 1st study cycle of Basic Education, autonomously in the 2nd and 3rd study cycles and with the contribution of all areas in Secondary Education. It is, therefore, a privileged curricular space to operationalize the themes of SD in the school (General Directorate of Education, 2017). It is believed, therefore, that this strategy will allow intervening in three clear dimensions, namely: an individual civic attitude, interpersonal relationship, and social and intercultural relationship. It is concluded, therefore, that democratic citizenship constitutes one of the areas of educational intervention of the XXIst Constitutional Government, also appearing at the center of the Agenda for Sustainable Development 2030.

Regarding artistic education, it is created the Artistic Education Team (AET) of the General Directorate for Education, according to article 5 b) of Decree-Law no. 14/2012, of January, 20th), from Ministry of Education (ME). It is a multidisciplinary team that develops its activity within the scope of the Directorate of Curricular Development Services (DCDS). It presents as core objectives: 1) the promotion of an intervention plan in the field of the different forms of art in a school context; 2) the coordination, monitoring, development of studies and the proposal of guidelines, in pedagogical and didactic terms, for generic artistic education; 3) the promotion of systematic work dynamics between cultural institutions and school institutions; 4) the development of alternative models of aesthetic and artistic training of educational agents; and 5) the identification of the needs for specific pedagogical resources required for better learning in the artistic area of pre-school, primary and secondary education. In this sense, through the Program of Aesthetic and Artistic Education, an intervention plan is developed that aims to implement an integrated strategy at the national level in the field of different forms of art in a school context: visual arts, dance, music, the theater.

Both Citizenship and Development, and Aesthetic and Artistic Education coexist as explicit dimensions in the Student's Profile when finishing Mandatory Schooling (Martins, 2017). Since this article is not the place to explain the document, it is configured what is intended to reach young people at the end of their mandatory studies. Youth committed to the values of citizenship, which respect cultural diversity; who understand, protect and value aesthetic and artistic diversity; who know how to act in accordance with the principles of human rights, realizing the relationship between rights, duties, and responsibilities. This succinct political and educational framework presented, configures the official speech, guiding what is intended to be methodologies and pedagogical-didactic procedures to be implemented in the school contexts of primary and secondary education. In this sense, it seems to us essential that higher education institutions responsible for initial and continuous teacher education, should consider it as a reference speech in the elaboration of curricular programs and projects to be developed in the training of future teachers and other future professionals with direct but non-

formal connections to education contexts (Decree-Law no. 55/2018 of July 6th, Ministry of Education). It is under that assumption that the training practices and experiences are developed in the article: an educational practice in the teaching of citizenship through the arts.

Theory, Practice, Creation

The understanding of the articulation of theory, practice, and creation has become a very pertinent theme for teachers in general and specifically for those who teach the arts and pursue the arts, as Irwin states (2008, p.88), a meaning of understanding ideas and practices. In the 1980s the ideas of Brian Allison (1972, 1982) and Rachel Mason (1988) in England regarding art research, were very innovative and were already an example of new perspectives of action. It was clear that the role of the arts in education was strongly affected by the way teachers and students saw the role of art outside of school. This situation prevails, and it continues to be seen to privilege the use of materials and the creation of images solely only because they have to do it in school, thus reducing artistic activities to mere "pleasing" school tasks. In other words, over the last few decades the arts have changed, young people have changed as well as our way of "seeing," thinking and interpreting the world, but the "old" methods remain. Activities in plastic expression classes or visual education continue to be limited to traditional manual work, where children and adolescents are taught to make gifts for the family, or decorations for school events, without any notion of visual culture, on technological development and the media.

To this end, Allison (1992) argued that art in context would promote personal development through the arts and that this would facilitate the acquisition of skills and increasing knowledge of the possibilities and meanings of art that implied: (i) The visual exploration of the surrounding world; (ii) The development of perception; (iii) The development of skills in materials control; (iv) Visual expression of perceptions, ideas and feelings; and (v) Developing the capacity to respond to and discuss their own work. In this way, it was assumed as methods the "narrative, autobiography, ethnographic practice ... poetic questioning, self-study", characteristic of qualitative research, also used by the areas of the human sciences, such as sociology, anthropology, history or psychology.

Almost three decades later, we find that this is not the case in art rooms, although this is the right way to develop knowledge of the role of Art in society. Creating, according to Allison (*idem*), in addition to developing confidence and artistic competence, involves expressing ideas, feelings, and personal beliefs aesthetically, through the use of processes, means, and techniques tailored to the needs, interests, and manipulative capacities of students. But how can you express ideas about "what" you do not know? According to the same researcher, the notion of creating is allied to that of appreciating, that is, giving personal answers to technical-artistic works. Appreciation involves analyzing, interpreting, comparing, and judging different kinds of objects and images. It implies not only developing an interest and knowledge about something, about artists, craftsmen, designers, about the history of art and crafts but also about the aesthetic qualities of the natural and built environment.

The development of increasing understanding of the role of art through the history of mankind and its impact on the social, economic and spiritual fields implies the teacher and pupils in teaching and learning of different forms of means of expression and art; Different roles and contributions of arts and artists; Different sources of artistic images; Different cultural forms and different purposes of Art, for example African, Asian and others; And different locations of art, for example galleries, museums, houses, books, buildings, industry and others.

In this perspective, arts can contribute, together with other disciplines, to the development of personal and social formation plans, promoting the structuring of values, interests and behaviors in function of an attitude of critical openness and intervention in a democratic society trying to shape itself in function of an unpredictable future, where true certainty is the place of uncertainty. At the intersection of the perceptual, analytic-critical, historical-cultural, and productive-expressive domains (Allison, 1992), expression, problem-solving, and the dialectic individual/society relationship are explored in terms of assessing and deciding to create and enjoy.

If by 2030 we must ensure that all students acquire the knowledge and skills necessary to promote sustainable development, citizenship and development, such are students, future Primary Education teachers addressing through the Arts, the issue of human rights, gender equality, the promotion of a culture of peace, global

citizenship, cultural diversity and sustainable development? How to make children into critical, creative citizens who can see, hear and feel with their hearts, prepared to act in society and build their history?

3. An Artistic and Sociological Experience in a School of Higher Education

The experience that we describe here investigates an educational practice in the teaching of citizenship through the arts, in an institution of Higher Education that bets on the interdisciplinary and interinstitutional collaboration, in the formation of teachers of Basic Education. The objective of the experiment was to investigate a service learning methodology that would allow students to become familiar with the National Educational Development Strategy, which, as previously mentioned, is an effective instrument to promote a true ES, contributing to the establishment of citizens to take an active stance in the face of local and global injustices. The images are part of the social world and, as Hernández (2006) states, are a powerful resource, because of the meanings they convey:

This leads us to think that the education curriculum for the understanding of visual culture should approach the images as social representations.

- Transdisciplinary.
- Based on the evolutionary, social and cultural characteristics of the students.
- Establishing intercultural connections.
- Starting from a critical social position. (p.140)

Children come to our classroom and bring a wealth of knowledge, resulting from the sociocultural contexts in which they are created and from historical eras that represent a certain type of values. However, for two decades we have been alerting (Moura, 2000; 2002) to the fact that the main problem of addressing cultural issues in classrooms is the continuous neglect of culture and history from a multicultural perspective (Cahan & Kocur, 1996). The strategies used by art teachers (and all curriculum content in general) continue to privilege western art, ignoring the social and intercultural exchanges that have influenced and continue to influence Portuguese society today (Fig. 1).



Fig. 1 Students from Cape Verde, Master of Arts Education at ESEVC © moura 2016

Methodology

A ESE foi pioneira na oferta de cursos de formação inicial e contínua neste âmbito, tendo realizado desde 1993 formações no âmbito da Educação Inter/Multicultural, formação na Educação para a Cidadania através das Artes (Fig.2), publicando artigos e desenvolvendo projetos e investigações de Doutoramento e Mestrado, que apoiaram a fundamentação teórica de diversas licenciaturas e edições de Mestrado.

The ESE was a pioneer in the provision of initial and continual training courses in this field, having carried out since 1993 formations in the field of Inter/Multicultural Education, training in Education for Citizenship through the Arts (Fig.2), publishing articles and developing projects and Ph.D. and Master's studies, which supported the theoretical basis of several undergraduate and master's degree subjects.

Several projects, some already completed, others in progress, have been developed in the Initial Formation of a Higher Education School, aiming at DE through interdisciplinary pedagogical options with artistic education. Privileging methodologies with an interpretative and qualitative nuance reflects the need to promote a Development Education through artistic and cultural experiences and the study of a contextualized visual culture. The themes selected by the participating team are the result of a partnership strategy between agents of culture (International Amnesty- Viana do Castelo Town Hall, Deão Youth Association and others), education and the arts (Educational Services of the Museu de Barcelos, Cultural and Popular Education Association, artists and artisans of the community), thanks to their effort, dialogue and continuous willingness to face challenges, encourage students to undertake new initiatives and concrete actions within the DE, through citizenship and the arts.



Fig. 2 Project related to Citizenship carried out at the School of Basic Education © moura, 2006

Projects on Education for Development through Citizenship and the Arts

In September 2018, academic activities began and in several courses sessions were planned in order to confront the students with concepts related to new curricular approaches, which will involve them in projects with the community and will compel them to think actively about the concepts mentioned above. What we are presenting here is a reflection of the first steps taken in this direction and which involved the following major themes: (i) Human Rights (DH) and (ii) Multiculturalism. In the sessions on Human Rights, local members of International Amnesty (IA) and members of the Private Social Solidarity Institution - Cultural and Popular Education Association (CPEA) collaborated. The activities developed with IA, aimed at contributing to:

- Clarification and familiarization of the participants with the meaning of concepts such as citizenship, human rights, diversity, discrimination, solidarity, equal opportunities, slavery in the past and present, minority, stereotypes, prejudices, Second World War;
- Debate on the different meanings of the concepts covered, taking into account the role of the media, everyday conversations and real cases;
- Awareness-raising for phenomena of exclusion, discrimination, and violation of human rights;

- Sensitization of the students to the difficulties of obtaining a decision by consensus, in the face of moral values and concepts (e.g., death penalty);
- Discussion about the concept of symbol and the way artists (e.g., Goya) use them in the art they produce, reflecting their lives, ideals, aspirations, etc.

With CPEA it was intended to provide:

- Familiarization of participants with citizenship practices, based on the knowledge of the functioning of a Private Social Solidarity Institution, in the areas of children's animation;
- Promotion of concerted actions and interinstitutional collaboration between a Private Social Solidarity Institution (PSSI) and a Higher Education Institution (HEI);
- Promotion of social participation and training of active, critical and participant citizens;
- Strengthening of artistic, social and cultural skills, based on SL (Figs. 3 & 4).



Figs 3 & 4 Rag Doll and Fátima Monteiro creating © campos, 2018

Resources / Strategies / Procedures

Real stories reported by guests; Images of works of art and the media; Workshops of Plastic Arts of CPEA, with the exchange of experiences on real situations related to migrations, refugees, discrimination and solidarity.

The horizontality of relations and the dialogue between all the participants has stimulated the participation of all (students and teachers, researchers from different scientific areas and other partners of the arts and culture) in a critical way, creatively involving subjects in a perspective of sustainable development. Concepts of culture, identity, citizenship, values, and rights of citizens, the role of art in society were addressed. Students were expected to position themselves in the position of the "other" and engage in critical dialogue, through an examination of fundamental values. We talked about migrations and gypsies. The description of real-life stories made participants aware of the importance of social interaction in personal development and dialogue in resolving interpersonal conflicts.

Student Feedback on Sessions

We present some of the comments of students who participated in these sessions, which served as an evaluation basis of the training given by the team of teachers and collaborators of Higher Education.

(...) I confess that before this session I thought that they came here and they should not, because I had the notion that they came to take away what little we have left, work, homes, income, food, etc ... But with this training, and with what they told us about their experiences with migrants, refugees, they explained and got us to put ourselves in the place of all those who

come to our country, in a way. (...). These are subjects that should be discussed frequently because they are part of our daily life. (MR, CTesP IEC, 2nd year, October 8, 2018)

(...) HR has more to do with practice and action than with theory, although it does not dissolve it, so we are invited to act together with IA, supporting them in the marathon of letters in November (...) (MPM, CTesP AT, 1st year, October 11, 2018).

(...) We spoke of the true heroes of History ... (CC, CTesP AT, 1st year, October 11, 2018)

(...) is undoubtedly an important and quite complex issue, in my opinion, the population's well-being, the fight against poverty, solidarity and social exclusion (...) people who come to our country often do not feel prepared to relate, since they often do not know the language, nor do they know our culture (PG, IESP IEC, 2nd year, September 25, 2018)

The sessions that favored multiculturalism were attended by a specialist in Education for Development, a member of the Rural Project 3.0: Service Learning for Rural Development, to be held at the ESEVC. He also collaborated with a member of the Viana do Castelo Town Hall, responsible for the Migration and Refugees Department, the Educational Services Officer of the Museu de Barcelos and a group of professors and students from the Music Department of the Federal University of Pernambuco, Brazil. The knowledge explored in the various sessions was as follows:

With an Education Specialist for Development

- Reflection on the concepts of Education for Development (ED), the historical process that gave rise to it and the continuous process of learning that it implies;
- Discuss issues related to reconciling economic growth and improving the quality of life of populations;

With a Town Hall Representative

- Debate on diverse concepts, such as citizenship, globalization, migration, social inclusion and measures needed to address integration issues for refugees/immigrants;
- The relationship between the right to nationality and the problems resulting from the free movement of persons;
- Awareness of phenomena of exclusion and discrimination, relating to existing situations experienced by real cases in Viana do Castelo and the type of support/rights that the country ensures;
- Discussion of the importance of values such as sharing, solidarity, cooperation, and volunteering and the role of organizations/associations that support the population.

Group of Musicians and Dancers "Flauta de Bloco" of Pernambuco

- Appreciation of contributions from the sharing of cultural and artistic diversity;
- Recognition of the advantages of cultural partnerships and networks resulting from globalization;
- The distinction of diverse art forms that characterize culture and identity;
- Understanding the work of art as an interpretation, vision and personal representation of reality;
- Development of dance skills and movement and integration of the various arts and contemporary culture with the experience of each student
- Exploration of rhythms and movements of Maracatu, Ciranda, and Frevo, typical of Pernambuco (Figs 5 & 6).

Educational Resources Specialist from Museu de Barcelos

- Appreciation of the tradition of the pottery of Barcelos, the testimony of hidden stream experiences and knowledge, which the Museum intends to value and safeguard for future generations;
- Acknowledgment of diverse art forms that characterize the culture and identity of communities;

- Identification of rural handicrafts as a source of income that can generate community development;
- Individual and group participation in solving the problems of knowledge and dissemination of artistic heritage.
- Development of students' socialization in the face of their multicultural heritage.



Pics. 5 & 6 Ciranda, Pernambuco dance; Clay modeling activity; © moura, 2018

Resources / Strategies / Procedures

We used real stories told by the guests, and artists from other continents; musical instruments were used; fixed and moving images were projected. There was an exchange of experiences in real situations related to migration, refugees, discrimination and solidarity.

Since access to culture is a key issue for growth, and an inseparable part of human rights, the museum assumes itself as a promoter of culture, enhancing the cultural formation of individuals through non-formal learning. Through the Educational Services, cultural institutions particularly museums, play a vital role in the formation of the human being throughout life. The visit to ESE by the head of the Educational Services of the Museu de Barcelos endorsed the awareness of the students to this area of intervention and access to cultural heritage and cultural events. This approach and contact had the purpose of facilitating the understanding of the museum assets and arousing the curiosities. The analysis of the "figurado de Barcelos" showed how many pieces insinuate a critical reading of the real, a personalized look (Moura and Cruz, 2006, p.45), in which the artisan designs in his pieces his reality using copy, but also his imaginary reality. The pieces become the mirror of reality and serve, as Milhazes refers (2002, p.16).

The studies of the various previously mentioned contents were directed to the changes of the last decades and to the impact in the contemporary social world. Globalization has been associated with one of the major transformative forces of human relations, modern social and cultural landscape and technological development. The guests explored concepts of cultural transmission, namely values of citizenship and spoke of the richness of cultural diversity as an essential factor in the building of democracy. Activities related to art criticism and interdisciplinary teaching were considered a natural way to help students find the "other" and to live different cultural paths. Projected images, films, and participation in workshops with artists from other cultures, allowed the discussion of stereotypes associated with people and traditional arts from developing countries, dubbed by many as exotic or primitive, and reflected on how the idea that handicrafts are less important than the visual arts is perpetuated, as well as the best art in the world is produced by Europeans (Chalmers, 1996).

Students feedback on sessions

(...) The activities developed are intended to stimulate and encourage the linking of Museu de Barcelos to the whole community, having a greater influence on the younger audience ... Barcelos is recognized as an educating city (...). The class was very rewarding and great learning (BA, LEB, 3rd year, September 27, 2018)

(...) The first session was about the appearance of the first pieces of clay in prehistory and their usefulness then. (ACM, LEB, 3rd year, September 27, 2018)

(...) Ciranda is another type of dance and music, also from Pernambuco, created by the women of the fishermen who sang and danced, while waiting for them to return from the sea. A rhythm characterized by the union, because it forms a great circle where the participants dance to the sound of a slow and repeated rhythm. Perhaps the one we most easily internalized and which pleased us most, because we do it in a group. (...) (MV, CTeSP IEC, 1st year, October 3, 2018)

Final Comments

The different comments lead us to believe that such sessions have given students access to fundamental knowledge and information to function more effectively in their society and the global community. The path of Community Psychology teaching is described as specialized training in psychology and as an autonomous training curriculum, as well as the debate on professional skills in this scientific-pedagogical field. The service learning methodology reveals itself as a powerful active strategy of teaching social education, and art plays an important role in deepening cultural, historical and social knowledge of students (including knowledge of other peoples and cultures) and in the development of a better understanding of the world (Figs. 7 & 8).



Figs. 7 & 8 Performance at ESE Library of the Musicians and Dancers 'Flauta de Bloco' from Pernambuco © moura, 2018

Students' confrontation with the new challenges of the 21st century has enabled us to verify that the lack of knowledge present in most of the students, regarding these relevant issues of their local, regional, European and global community has given rise to debates and reactions which indicate their interest in being able to contribute decisively to the development of our communities, and that is why we must provide them with opportunities to actively participate in the search for solutions to social problems in order to become active citizens of solidarity . The Charter of the Council of Europe on Education for Democratic Citizenship and Education for Human Rights reads:

Education for democratic citizenship incorporates education, training, awareness, information, practices and activities aimed at the acquisition by learners of knowledge and skills of understanding and developing their attitudes and behaviors, to enable them to exercise and defend democratic rights and duties, to value diversity and to play an active role in democratic life, in order to promote and protect democracy and the rule of law. (p.4)

These sessions were a first step towards raising awareness of issues such as immigration, human rights, citizenship issues and the possibility of better interpreting the new National Development Strategy for Education

2018-2022 (NDSE 2018-2022). In order to respond to one of the main conclusions of its external evaluation, this proposes to update the Strategy, based on 17 Sustainable Development objectives.

The analysis of the results allows concluding that students, who had access to the reflection on Education for Development through the Arts, recognize the importance of this knowledge. In the same way as other studies with similar social concerns (Ornelas & Vargas, 2014, p. 41), in this case too, a double challenge was sought to prepare the future professionals of Arts and Technologies, Basic Education and Educational Intervention in Nursery, with a set of principles and values, through the development of curricular approaches that have provided them with concepts and resources that will allow them to develop more coherent intervention programs that are in line with the theoretical assumptions to which they have access.

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The Impact of Individual Differences in Cognition on L2 Learners' Reading Outcomes

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Abstract

There are a large number of factors contributing to the reading outcome diversity. Individual differences in cognition are possibly regarded as one of the most significant causes and have a predominated impact on the reading development. Individual differences, like meta-cognition and working memory, are found to have a positive correlation with L2 learners' reading outcome variety and have a profound influence on their ultimate achievement in reading to some extent.

Key Words: Individual Differences, Cognition, Meta-Cognition, Working Memory, Reading Outcomes

I. Introduction

People are likely to perform various degrees of efficiency and different levels of achievement in reading areas, not only in the first language learning but also in foreign language learning. Especially in foreign language learning, learners' reading performance and attainment vary tremendously from person to person. There are a large number of factors contributing to the reading outcome diversity, such as the quality and quantity of natural exposure, the selection of textbooks and materials, the choice of teaching approaches, effects of instruction, teachers' proficiency and dedication, social environment, family background, the application of technology, and individual differences etc. However, when it comes to accounting for the diversity of reading outcomes, individual differences in cognitive variables - despite the fact that they are not fully independent- are possibly regarded as one of the most significant contributing factors and have a predominated impact on L2 learners' reading development (Dörnyei, 2005; Ellis, 2008; Pawlak, 2012; Lightbown and Spada, 2013).

Among these factors, the influence of individual differences on reading outcomes has drawn considerable attention in literature involved in aspects of meta-cognition (Dabarera et al., 2014; Carretti, 2014; Schiff et al., 2015; Veenman, 2016; Chevalier et al., 2017; Bergey et al., 2017) and working memory capacity (Swanson et al., 2006; Baddeley, 2007; Conway et al., 2010; Dahlin, 2011; Misyak and Christiansen, 2012; Brandenburg et al., 2015; Prat et al., 2016; Friedman et al., 2017 etc.). Most of these variables in IDs are found to have a positive correlation with L2 learners' reading outcome variety and have a profound influence on their ultimate achievement in reading to some extent.

II. IDs in L2 learning

2.1 Definitions and Classifications of IDs

It is widely known that children all over the world, no matter where they are born, no matter what language they speak, no matter what their social and cultural background, can acquire the first language by a very early age and perform a high degree of similarity in the process of first language acquisition (Johnson, 2008). As Chomsky (1959) pointed out, all human beings were biologically designed to acquire language and had the potential to develop their language proficiency based on some innate universal principles (cited in Lightbown and Spada, 2013). Nevertheless, the innate competence people commonly share in reading acquisition is not always compatible with the various levels of reading outcomes, even in their native language, let alone in the second language. One possible explanation for variance in L2 learners' reading outcomes is the influence of individual differences.

Individual differences (henceforth IDs) refer to any personal characteristics or traits that mark a person differ from each other in a stable and systematic way (Dörnyei, 2005). Admittedly, such a definition seems to be rather unquestionable and reflects well the general laws of human individuality. However, experts hold different or even controversial views towards the categories of IDs. For instance, as Oxford (1992) suggested that learners' IDs could be classified into eleven elements: age, sex, motivation, anxiety, risk-taking, cooperation, competition, learning style, learning strategies, self-esteem, and tolerance of ambiguity, which were the most predominated causes in second language learning.

Another example, such as Oxford and Ehrman (1992) indicated that there were nine categories in IDs including age, gender, aptitude, motivation, anxiety, self-esteem, risk-taking, language learning styles, and tolerance of ambiguity, which were regarded as the utmost elements in IDs on L2 learning. In addition, Ehrman et al. (2003) categorized IDs as three areas: learning styles, learning strategies, and affective variables that incorporated four subcategories: anxiety, ambiguity tolerance, motivation, and self-efficacy, and also they stated that second language learners' IDs played a crucial role in predicting the ultimate attainment in language learning. Similarly, Ellis (2004) classified IDs into seven categories: motivation, learner beliefs, language aptitude, anxiety, learning style, learning strategies, and personality that was sub-categorized as tolerance of ambiguity, anxiety, risk-taking, empathy, inhibition, and self-esteem, and claimed that there was a positive correlation between IDs and language learning.

Yet Dörnyei (2005) presented another eleven elements of IDs which involved personality, aptitude, motivation, learning styles, language learning strategies, anxiety, self-esteem, creativity, willingness to communicate, and learner beliefs. More recently, Foroozesh-nia (2015) offered an ID taxonomy including cognitive styles, learning styles, learning strategies and effective factors that might comprise motivation, attitude, self-regulation, and self-efficacy. Comparing with these different categorizations of IDs, this literature revealed that the conceptualization of IDs consisted of some key variables and certain alternative factors. Take motivation as an example, and it was defined as one of the subcategories of affective factors by Ehrman et al. (2003) and Foroozesh-nia (2015), whereas it was identified as one of the core variables in IDs by Ellis (2004) and Dörnyei (2005).

2.2 The need for studying IDs in reading

Although there were some different classifications of IDs in above-mentioned literature, they all agreed with the influence of IDs on language learning to some extent. They also shared some general purposes in their studies, such as investigating the relationship between differences in human characteristics and language learning process, shedding light on the diversity of reading outcomes, predicting language learning success, and optimizing the individual potential in L2 reading, etc. However, the correlation of IDs and reading outcomes is rather complicated, and variables in IDs are more likely interconnected rather than fully independent. The interconnected variables in IDs on reading outcomes are usually classified under three broad realms: cognition, affect and conation (Afflerbach, 2016).

To some extent, these three factors in IDs may account for readers' various performance in the process of reading: from the earliest acquisition stages on up to having abilities to read to achieve self-selected and valuable

goals as adults and predict their various paths of development. These three factors in IDs may also help educators to get a better understanding of different individuals' learning outcomes in achieving particular reading-related tasks and different individuals' responses in particular reading contexts. Furthermore, these three factors in IDs may shed light on different individuals' choices of engaging in different reading behaviors, for which they may reflect themselves differently as readers and rethink the reading process in various ways. Finally, these three factors in IDs play a crucial role in helping educators to get a better grasp on how reading itself becomes a source of variability and individuation in the identity and characteristics of the individual reader (Fox and Maggioni, 2016).

Therefore, it would be quite important to investigate the aims and assumptions of IDs which may have a profound influence on learner' reading process and outcomes. The investigations of IDs probably provide instructors with the opportunities and challenges to appropriately intervene in the ways of fulfilling potential, achieving success, or equalizing rights in reading. Moreover, the investigations of IDs in reading usually help instructors to gain understandings of developmental differences of the skills and abilities needed for implementing reading processes. Through these interventions and understandings, it is more likely to achieve the utmost goals of enhancing readers' proficiency and helping struggling readers. However, it seems to be difficult to draw a conclusion on long-awaited elixir or one-size-fits-all instructions.

III. Meta-cognition and working memory on reading

3.1 Meta-cognition on reading

It appears to be somewhat complex not only in the aspects of the classifications of IDs but also in the aspects of their impact on reading processes and reading outcomes. As Artley (1981) argued that reading outcomes were possibly influenced by a combination of differences deriving from both inherited and acquired characteristics, or from both nature and nurture. This view was also shared by Strang (1961) who introduced that difference in reading emanated from internal and external factors, and from learners' interactions with their reading environments. Admittedly, the dynamics of these internal and external factors greatly impact the reading outcomes. An isolated study of these variables may not provide a better explanation to this broad outcome diversity.

Indeed, the complicated relationships between the IDs in cognitive factors and reading areas (e.g., phonemic awareness, word identification, fluency, and comprehension, etc.) have been widely discussed in the literature. Among these variables, cognitive factors in IDs in reading areas have received quite considerable attention. For instance, Veenman (2016) pointed out that meta-cognitive strategies and skills played a rather predominated role in the reading process: at the onset of a reading task, high-level meta-cognition should help readers to orientate and plan the reading assignment; during the reading, it might encourage them to monitor and select methods for processing context; at the end of the reading, meta-cognitive proficient readers could evaluate their comprehension of the reading task and recapitulate the thesis statements, arguments and conclusions.

As Dabarera et al. (2014) pointed out, there was a positive correlation between increasing awareness of meta-cognition and the improvement of reading comprehension. In their research, they investigated the influence of instruction in meta-cognitive strategies on reading comprehension in 67 year-1 secondary L2 learners from Singapore. Their findings corroborated previous studies that instruction of meta-cognitive strategy was effective in rising-awareness of meta-cognition and was significantly related to reading comprehension achievements. Carretti (2014) also suggested that training programs emphasizing on meta-cognition could enhance learners reading comprehension. In addition, Chevalier et al. (2017) examined the relationship between meta-cognition and academic success, and their findings indicated that the application of reading strategies in meta-cognition could predict academic attainment for learners with a history of reading difficulties.

However, some experts presented another picture of the relationship between IDs in meta-cognition and academic success. For example, Bergey et al. (2017) investigated the effects of meta-cognitive strategies on reading comprehension and academic achievement for universities learners with and without a history of reading difficulties. Their study results showed there was a negative correlation between meta-cognition and academic achievement, and meta-cognition failed to predict academic success for learners with a history of reading

difficulties. When it comes to the relationship between meta-cognition and reading development, Schiff et al. (2015) claimed that the application of meta-cognitive strategies could help L2 young learners acquire early reading skills and achieve higher scores in reading tests. Thus, it might be concluded that IDs in meta-cognition have a positive influence on L2 learners reading development and outcomes.

3.2 Working memory on reading

Turning to the IDs in working memory on reading, it could be argued that working memory is highly related to L2 learners' reading development and has a positive impact on reading outcomes. Working memory in IDs can be identified as a central executive with three subcategories: a phonological loop storing information of sound, a visuospatial sketchpad storing information of vision and space, and an episodic buffer integrating information of sound, vision, and space (Baddeley, 2007). Like Swanson et al. emphasized in 2006, L2 learners' working memory abilities were somehow associated with abilities of executive processing for comprehension: learners with working memory deficits likely performed reading disabilities in word recognition and comprehension.

In addition, a study of investigating the connection between working memory and reading outcomes conducted by Dahlin (2011) revealed that individual working memory was significantly correlated to young learners' reading achievements and the training effects of working memory were found to benefit L2 learners' development of reading comprehension. More recently, Friedman et al. (2017) examined the contributing factors to reading comprehension disabilities in learners with Attention-Deficit Disorder. They demonstrated that IDs in working memory and orthographic conversion were the key elements relating to the difference of reading comprehension to ADD learners. Their findings also showed that instructions or interventions with the combination of working memory and orthographic conversion might be beneficial to the improvement of reading outcomes in ADD learners.

When it comes to the working memory in phonemic awareness, Quinn et al. reported in 2016 that phonemic awareness was related to the early reading skills development and had an obvious impact on the normal beginning reading skills acquisition. They argued that there was a casual relationship between phonemic awareness and reading development, in other words, individuals with phonemic awareness deficits were a hallmark of reading disabilities. Furthermore, the relationships between phonological awareness and reading development were possibly mediated by working memory abilities of individuals (Prat et al., 2016). Different working memory capacities could also elucidate various reading outcomes, namely a deficit in working memory was often associated with reading problems (Brandenburg et al., 2015). Thus, there was a positive correlation between IDs in working memory capacities and reading outcomes.

However, some experts, such as Conway et al. (2010) who conducted an implicit learning experiment in which sixty-four undergraduate students at Indiana University participated, argued that IDs in short-term memory or working memory had no significant influence on the relationship between word predictability and implicit learning. Analogously, like an experiment study carried out by Misyak and Christiansen in 2012, examining the association between IDs in statistical learning and comprehension, in which thirty Cornell undergraduates who were monolingual and native English speakers took part, its results revealed that there was a negative correlation between IDs in short-term memory and implicit learning, whereas a positive correlation between IDs in short-term memory and explicit learning.

Taken together, although there are quite a few controversial discussions involving the effects of meta-cognition and the individual working memory, the crucial role of IDs in reading outcomes may not be denied to some extent. More importantly, the significant influence of individual cognitive variables on the ultimate degree of attainment in reading outcomes has also been demonstrated in the aforementioned literature. Thus, it can be concluded that IDs in meta-cognition and working memory are positively related to L2 learners' reading development and outcomes, and proper interventions and instructions of meta-cognitive strategies and working memory appear to be beneficial and helpful to L2 learners' ultimate reading achievements.

IV. Conclusion

In sum, as discussed on the above-mentioned literature, the majority of variables in IDs like meta-cognition and working memory are found to have a positive correlation with L2 learners' reading outcome variety and have a profound influence on their ultimate achievement in reading to some extent. For the variable of meta-cognition in IDs, it appears to be able to predict L2 learners' eventual academic attainment and help them to acquire early reading skills and gain higher scores in reading tests. In addition, individual working memory capacities are somehow related to learners' abilities of executive processing for comprehension, that is, learners with working memory deficits likely perform reading disabilities in word recognition and comprehension whereas those with high working memory competence tend to obtain better scores in reading.

Although there is no elixir to account for all these complicated and interactive variables in IDs, there is no doubt that the investigations of relationships between IDs and reading outcomes would probably provide instructors with better understandings of L2 learners' developmental differences of the skills and abilities and final attainment. Gaining these understandings may help instructors appropriately intervene in the ways of fulfilling L2 learners' potential and achieving reading success. Thus, it is more likely to reach the utmost goals of enhancing readers' proficiency and helping struggling readers.

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Challenges of Digital and Teacher Training

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Abstract

The broad development of digital technologies (TD) and their ubiquity in actual students are factors that cannot be ignored by the school and teacher. The present students were born in the digital era and wish to find in school rich environments in technology, meeting motivations. It is a school's commitment to ensure and to promote quality and expectations in teaching. It is hoped that teacher organize his pedagogical practice in a coherent and balanced process, using digital as a resource to improve the learning environment. The research shows that a factor influencing teachers' adoption of TD results from the technological experiences included in training programs. Therefore, this study examine how teachers integrate TD in pedagogical practice and how initial or continuing training programs influence this use. The study involved primary school teachers and finalist students of master's degrees in education, and was restricted to TD in the Portuguese class. For data collection, we used online questionnaire survey and interviews. The conclusions highlight how teachers' learning influences the effective integration of TD in class. There is a need for a profound didactic-pedagogical intervention in the initial and continuing teacher training programs, including the knowledge in using TD in school learning.

Key Words: Training, Teachers, Technologies

1. Statement of the Problem

The broad development of digital technologies and their ubiquity in the everyday life of the 21st century student cannot be ignored by the school and education professionals. The students that teachers currently receive in their class were born in the digital age and wish to find in school rich technological environments that fulfill their learning needs and motivations. Thus, we will say that it is the school's commitment to guarantee and promote the teaching quality. It is expected that the teacher organizes his pedagogical practice, adapting it to the reality of the school and its students, in a coherent and balanced process, using technology as a resource to improve the learning environment (Heitink (Heitink, Voogt, Fisser, Verplanken, & Braak, 2017).

At this level, and as an obvious consequence, the preparation of future teachers to integrate technology into their educational practice is the challenge that teacher training institutions (IFPs) and those responsible for such training face (Liu, 2016). Enabling future teachers for the effective integration of technologies implies training programs in line with this purpose. That is, programs that help future teachers develop knowledge about how to integrate technology in the promotion of learning.

Most of the students who are currently doing their vocational master's in teaching are a part of the so-called Generation Z, made up of people born between the mid-1990s and mid-2010, that are usually characterized by digital natives. They have grown along with digital technology, are actively involved with the internet, social networks, use their mobile phones at all times and are regular users of Instagram, Snapchat, WhatsApp, Facebook. However, there is a perception that teachers who are currently teaching in Portuguese schools also are familiar with technology, have a personal computer, know the internet, communicate through email and use

social networks (Barbosa, 2016; Barbosa & Pereira, 2016; Castro, 2014). Although it is recognized that these two groups are technically more skilled and more entangled with the digital media, this knowledge and use alone do not make them competent to integrate TD in the curriculum, using them as a support for methodologies, implementing collaboration and modeling the process of self-learning.

The reference literature makes explicit that the integration of TD in classroom practice is a complex, difficult task and that sometimes it's capable of generating some stress in teachers (Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur, & Sendurur, 2012). The presence of TD in the learning support brings changes in the pedagogical organization of the classroom, it modifies the way learning is managed, the presentation and exploration of contents are different, as are the time of tasks, the dynamics of interactions and collaborative work, and, from this assumption, it is understood that TD does not always fit the culture of teaching practiced, and may even penalize the teacher's sense of effectiveness. A second type of problem arises from the technological instability, in effect at all times arise hardware updates and new applications of software, there is a supersaturation of data that increase some anxiety and insecurity for the teacher when not understanding how to process all the innovation (Mouza, Nandakumar, Yilmaz Ozden, & Karchmer-Klein, 2017). To conclude this set of considerations, it should also be noted that TDs are not neutral or impartial. Particular technologies have their own tendencies, possibilities and limitations that make them more appropriate for certain tasks than others, and this is a fundamental knowledge for the teacher when selecting TD for the pedagogical task that he intends (Costa, Rodriguez, Cruz, & Fradão, 2012). Problems of this order, explained throughout this paragraph, advise that in a work that advocates for Didactics, ways of understanding and planning the integration of TDs in the classroom are discussed and explored.

The research shows that one of the factors influencing the adoption of TD in the pedagogical practices of the new teachers results from the limited technological experiences included in their training programs. In fact, several researchers are unanimous in concluding that the training in question has some shortcomings, with a very great focus on what comes closest to theoretical knowledge and tutorial clarifications of digital educational resources, then with the experience of learning situations which can be reconfigured in actual classroom practice. Koehler and Mishra (2009) say that the teachers did not receive inadequate training to use technology in their pedagogical practices. The approaches to teachers' professional development offer a unique approach to technological integration when, in fact, teachers operate in a variety of teaching and learning contexts. In this sense, Koehler, Mishra and Cain (2013) indicate as fundamental "an approach that treats teaching as an interaction between what teachers know and how they apply this knowledge in the unique circumstances or contexts within their classrooms" (p.14). Therefore, the integration of technology must be planned according to the intentions and specific subjects in specific contexts of the classroom. This means that it is essential to provide the future teachers with learning strategies with the integration of technological resources, coherent and articulated with those they will find in the levels of education for which they are being formed (Ottenbreit-Leftwich et al., 2012; Ottenbreit-Leftwich, Glazewski, Newby, & Ertmer, 2010). To assume such a position also presupposes that it responds to the different knowledge that, in interaction, regulates the knowledge necessary for the effective integration of technology in pedagogical practice. Ramos, Teodoro and Ferreira (2011) put the technological and pedagogical knowledge of teachers as a condition for the integration of TD in school. Costa, Rodriguez, Cruz and Fradão (2012, p. 24) add that it is essential to have "some technological knowledge, without which it will be difficult to make informed and informed decision-making", however, it is necessary to articulate it and make it coexist with pedagogical knowledge and knowledge of content or discipline. According with that points, the theoretical model developed by Mishra and Koehler (2006), designated by technological pedagogical content knowledge (known in the literature by the acronym TPACK). The TPACK framework describes knowledge domains that are relevant for teachers to implement technology in their teaching practices. Based on the pedagogical knowledge of content (PCK) model, developed by Shulman (1987), we know that teachers' knowledge is not limited to general pedagogical knowledge about processes and practices or teaching methods (PK), nor to knowledge about the disciplinary content that each teacher (CK), but it is necessary the PCK, that is, teachers are able to integrate domain knowledge with appropriate pedagogical approaches so that students can understand the subject. TPACK reconfigures the PCK model by adding the domains of technological knowledge (i.e., technological knowledge [TK]). This knowledge comes to join the others, and is creating new knowledge resulting from the intersections between all areas, technological pedagogical knowledge (TPK), the technological content knowledge (TCK) and the technological pedagogical content knowledge (TPACK). "TPACK emphasises the importance of preparing pre-service teachers to make sensible choices in

their uses of technology when teaching particular content to a specific target group” (Tondeur, Scherer, Siddiq, & Baran, 2017, p. 46). So, the teachers need to understand how to shape instructional practices in which technological, content and pedagogical knowledge are embedded.

TPACK emerges when the teacher, in order to teach a specific content, uses the pedagogical method / strategy he considers most appropriate and in sequence selects the technological tool with the most potential for students to construct knowledge in a differentiated, meaningful or even more easy and fast. This means that TPACK emphasizes the multiple interactions between: 1) the knowledge about the different technological tools and the potential they have to realize learning situations, perceiving limitations and pedagogical possibilities; 2) the way in which the use of a given tool can motivate the students to the activities and promote strategies of collaborative work and learning in interaction between peers; 3) an understanding of how technology tools and content are related, influencing and limiting each other, making the teacher in a disciplinary area to opt for a particular technological resource because it will help students learn a particular programmatic topic better; 4) the diverse elements that characterize the teacher's work contexts, such as infrastructural, cultural, socioeconomic aspects, and interferences or influences in the integration of digital technologies in classroom activities. Koehler and Mishra (2009) consider that “social and contextual factors also complicate the relationships between teaching and technology” (p.61). Indeed, teachers do not always find the guidance and support they need to integrate technology into their classroom work (Agyei & Voogt, 2011; Harris & Hofer, 2011; Scherer, Tondeur, Siddiq, & Baran, 2018b; Tondeur, 2018)

This quickly sketched framework allows us to establish the orientation that should be present in initial teacher education programs: to include in curricula, disciplinary units on technological knowledge, but also appropriate spaces for the construction of knowledge in order to integrate technology in the field the specificity of the discipline to which the future teachers are being trained. Several researches on the development of ICT skills for pre-service teachers show that technology must be introduced into the throughout the curriculum in order to provide pre-service teachers with the experiences needed to apply technology to their specific content areas (Ottenbreit-Leftwich et al., 2010; Tondeur et al., 2012; Tondeur, van Braak, Siddiq, & Scherer, 2016). Indeed, practical experiences around the world have corroborated the potential of such integrated approaches. To prepare future teachers for the effective use of technology, they need specialized instruction on how they teach their core content with technology (Mouza, Karchmer-Klein, Nandakumar, Yilmaz Ozden, & Hu, 2014; Mouza et al., 2017; Shinas, Karchmer-Klein, Mouza, Yilmaz-Ozden, & J. Glutting, 2015).

In this context, we intend in this text to present a study carried out under the training of 1st CBE teachers to integrate technology in teaching practice. In line with the literature presented above, we try to understand how the integration of technology in their curriculum and in the specific area of the Portuguese Didactic class influences the use the TD in their teaching practice. At this point, the first move is to try to understand how teachers and preservice teachers use TD in the Portuguese class, in order to understand, in a moment later, the way in which initial or continuing training programs influence this use. The questions that guided this study are: 1) What TD are used by teachers and preservice teachers in Portuguese class? 2) What domains and learning objectives are used? 3) What training in educational technology do the participants have? What relationship is there between the use of TD in class and the teacher education in educational technology? The study involved teachers from the 1st Cycle of Basic Education (CBE) and preservice teachers (PT) of the master's in teaching of the 1st. CBE and Portuguese and History and Geography of Portugal of the 2nd CBE and the Master's Degree in Pre-school Education and Teaching of the 1st Cycle of Basic Education.

2. Methodological Procedures

Considering the problematic under study, it was considered pertinent to follow a descriptive and interpretative methodological framework, since it was perceived that it would be the most adequate to understand the declarations about the practices of the teachers in the level of the integration of TDs and to establish relations between the use of TD and training acquired for such use.

The sample consisted on teachers from the 1st Cycle of Basic Education (CEB) in the active, from the northern region of the country, who had never held the position of cooperating teachers and preservice teachers (PT) to attend the Masters in Teaching of the 1st. CBE and Portuguese, and History and Geography of Portugal of the 2nd CBE, and also in Pre-School Education and Teaching of the 1st Cycle of Basic Education. Fifteen teachers and fifteen PS participated.

The online questionnaire and face-to-face interviews were the instruments selected for data collection. The questionnaire was conducted through Google's survey software, which was available for free on the web and was divided into five topics: 1) Personal and professional data of the respondents; 2) Access to digital technologies; 3) Use of TD in Portuguese class; 4) Advantages of using TD in Portuguese class; 5) Problems in the use of TD in Portuguese class. The issues in topics 1, 2, 4 and 5 were, for the most part, closed, multiple choice, and selection of response options; the issues of topic 3, given the nature of the topic, were open-ended. Indeed, it was important to negate any kind of response orientation and to give as much freedom as possible to the linguistic-textual construction of the response. The face-to-face interviews had a semi-structured script based on the questions of the online questionnaire, supplemented with questions focused on the topic of training acquired in TD, and were carried out after the participants' participation in the online questionnaire. For the study presented here, only data related to topics 1 and 3 of the online questionnaire and the data collected during the interviews were considered.

B) TD on Portuguese Class	Portuguese learning domains	Reading and Literary Education
		Writing
		Orality
		Grammar
C) TD training	Certificate of Digital Competence	Certificate of Digital Competence (N1)
		Certificate of pedagogical and professional competence with ICT (N2)
		Certificate of advanced ICT competencies on education (N3)
	Training actions attended under the 9th article of the legal regime of the continuous training of teachers	
	Training acquired in the context of initial training	

Figure 1 – Categories of Analysis

The analysis and discussion of the data was made regarding the following dimensions of analysis: A) Characterization of the participants; B) TD in Portuguese class; and C) Training in TD. Regarding the analysis dimension A, we have gathered the information corresponding to gender, age, professional experience and academic qualifications. For dimension B, the data collected were organized according to the domains and learning objectives of Portuguese foreseen in the official program documents. Finally, in dimension C, three categories of analysis were defined: i) the training acquired by the teachers in the ambit of the ordinance n.º 731/2009 that created the system of training and certification in ICT competences (information and communication technologies) for teaching staff in pre-school and elementary and secondary education establishments; ii) training in ICT acquired in the context of continuing training, governed by Article 9 of the legal regime of continuing teacher training; and iii) training in technologies acquired in the context of initial teacher training. The figure 1 shows the summary table of dimensions and categories B and C for data analysis.

3. Results and Discussion

A) Characterization of participants

Regarding the characterization of the participants, as previously mentioned, they agreed to collaborate in the study on a voluntary basis, answering the online questionnaire and interview, 15 teachers teaching in schools of the 1st CBE of the northern region of the country and 15 students attending the Master's in Teaching of the 1º CBE and Portuguese and History and Geography of Portugal of the 2nd CBE and in Pre-school Education and Teaching of the 1st Cycle of Basic Education, in the analysis of data referenced as trainee teachers, PE. The teachers' group consisted only of female members and was located in terms of age groups, mostly between 51 and 60, maturity very consistent with the reality of this professional group in the national territory. When considering the academic qualification of the teachers, it is verified that all are licensed or equivalent to a course of complementary training, academic degree in accordance with what is required for the professional category,

one also presents a postgraduate in pedagogical supervision and another a master's degree academic in this specialty. The group of PTs, similar to the group of female teachers, was also made up of female-only members, all of whom were under the age of 25, a characterization that confirms the orientation of initial teacher training in the national territory. In academic terms they were graduated in Basic Education and were finishing a professional degree.

B) Use of TD in Portuguese class

The data on which we analyze this dimension of analysis results from the responses to the online questionnaire and the interviews conducted. The information gathered from these instruments has allowed us to understand the TDs that the participants say they use to concretize Portuguese learnings in class context. In fact, in the information collected, three types of information stand out more or less distinctly: information on the Portuguese domains in which TD is mobilized; the information about the learning objectives that appear valued in this use and the information about the typology of TD referred to. When considered together, this information allows a very clear design on the use that teachers and PT make of TD in Portuguese class (Figures 2 and 3).

In a more detailed description and interpretation, we find that, in relation to the fields of Reading and Literary Education, taken together, the presented data show a very different practice between the teachers and the PT, as observed in figure 2., firstly the diversity of digital technological resources and applications designated by the PT as opposed to those indicated by the teachers. Teachers essentially rely on editorial platforms and search engines, such as Google, to access content. These data are consistent with research already done elsewhere (Barbosa & Pereira, 2016). Teachers now have easy access to a variety of software and digital educational resources made available by the publishing industry specializing in the production of school materials. Various digital services, products, resources and educational materials are distributed to faculty through proprietary platforms, upon prior registration, and / or through the adoption of a particular editorial project. These digital resources function as satellite documents of school textbooks, having a very valued presence in the classroom, right from the level of didactic work around Reading and Literary Education.

Still regarding the data represented in figure 2, we highlight, secondly, the information about the learning objectives that appear valued in the work with TD. In both the questionnaire and interview data, it was very clear that the two groups of participants use the TD in their pedagogical work about reading and listening to read various texts and the consequent appropriation of vocabulary in order for the students to read fluently, to know literary works of reference and to contact with texts associated essentially for informative purposes.

Nevertheless, it is perceived that PT has technological know-how and makes a more productive and varied use of TD. The use of technologies for publishing and sharing content to access images and videos, such as YouTube and the National Reading Plan (NLP) portal, as well as the use of applications that allow you to create presentations and videos animated power to implement pedagogical situations that we interpret not only as more varied but also more creative and stimulating for the learning environment, such as the PowToon, for example. However, regarding the learning objective, development of textual comprehension, it was observed that only PTs exploit this goal through the use of TD. In this regard, a selection of digital tools and applications such as HotPotatoes, Kahoot, Plikers and Flashcards, through which PTs create content in the form of interactive exercises, such as multiple choice, selection questionnaires multiple, true / false, or short answer; lacunar text exercises; crosswords; with a strong playful component, these TDs engage students enthusiastically in the work of reading and understanding the text. Thus, what these data reveal is a tendency to recognize that PTs are more familiar with TDs than teachers and use them in a planned and intentional way.

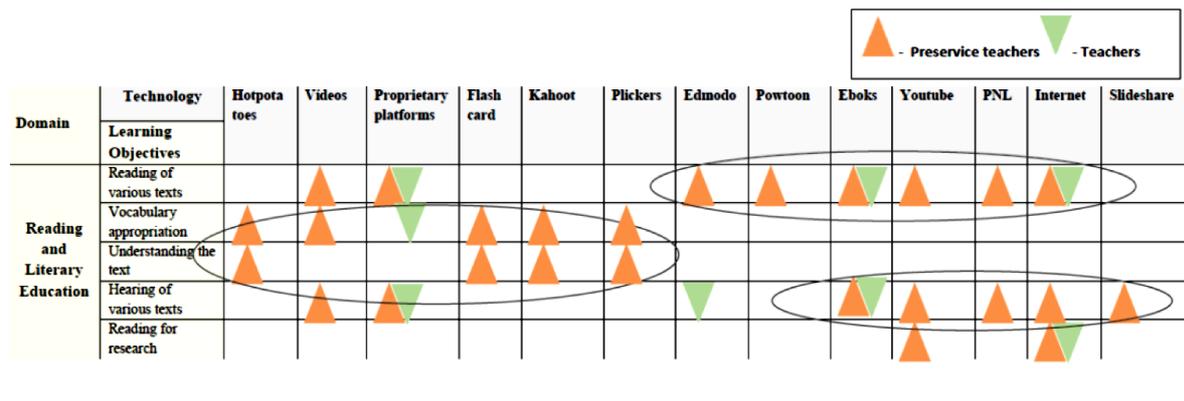


Figure 2 – TD on the domains of Reading and Literary Education

The analysis carried out in the Writing domain confirms the orientation that we identified in Reading and Literary Education. As can be seen in figure 3, there is a number and variety of TD identified by the EPs that are absolutely different from those that are pointed out by the teachers. As the data in figure 2 have shown, PTs show a much more solid technological knowledge of content than teachers. See, in this regard, the TDs that indicate for the work around spelling learning: GoConqr, HotPotatoes, Kahoot, Plickers, Word Processing Software and PowerPoint. These resources allowed the PT to flex the learning environments of the orthographic code, making the motivation and the taste of learning coexist in a balanced way with the involvement in the construction work of the learning.

The PT stated that they had elaborated phoneme-grapheme correspondence exercises, exploring contextual and morphosyntactic regularities, fixing specific registers, associating and manipulating graphemes, diagnosing and orthographic correction, in order to deepen and consolidate the correct forms of writing the words, and in function of these pedagogical intentions is that they selected the TDs that they considered adequate and compatible with the school contexts.

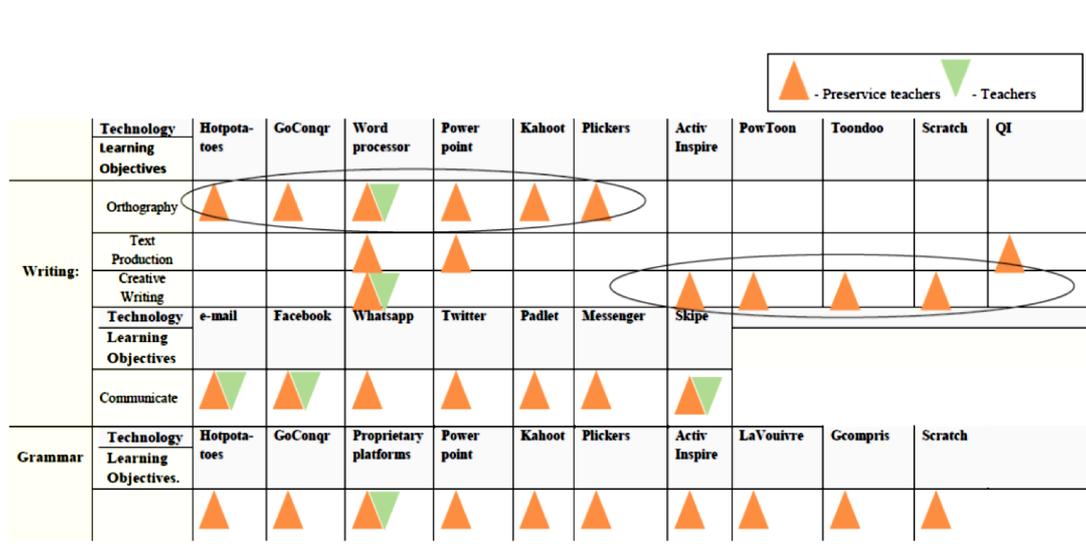


Figure 3 - TD on the domains of Writing and Gramma

Also in the Writing field, it is important to highlight the data obtained regarding the specific work in creative writing. Also, at this level, the difference between the TDs used by the teachers and the PT is very expressive. While the former refers only to the use of word processing software from Microsoft Word, PT also identifies other applications with real potential for students to develop a positive and pleasant relationship with writing. Through PowToon, Toondoo and Scratch are several multimedia tools that appeal to the imagination and offer situations that favor attention and concentration around the writing process, facilitating the production of writing objects combined with image, music, sound and animation.

When we compare the results according to the TDs used in the different learning objectives of the Writing domain, it is clear that the PTs select the TDs in a particular way, in a direct and coherent relationship between the potential they present and the specific learning objectives that want to see realized. This orientation has been reinforced as we move forward with the description and interpretation of the data. In the same sense, the TDs are more oriented towards the development of communicative and linguistic skills, either with the intentionality of disseminating and sharing documents and works carried out, for example through Padlet and Facebook, or in interpersonal communication, more asynchronous in the use of email, or in communication with more possibility of occurring in real time through MSN Messenger, WhatsApp, Twitter and Skype. The EPs mentioned that they have taken advantage of the more socially oriented TDs to value the work around the binding aspects of an effective interaction, such as the rules of linguistic courtesy, especially forms of treatment, greeting, opening and closing of statements.

In the domain of Grammar, similar to the observed and commented for the previous domains, a very different TD integration between the two groups is again visible. Teachers indicate that they use only digital content provided by editorial platforms, whereas PT points out a wide range of applications and software with educational potential and whose characteristics allow to generate activities of a very diverse nature and pedagogical function: observation and exploration of linguistic occurrences, problematization and description of the rules and grammatical processes that structure and govern the uses of language, training and systematization of grammatical knowledge. The PT therefore perceived the multiple possibilities that TD offer to work dynamically, interactively and in some situations playful, curricular contents usually ungrateful for the students, as is the case of grammatical knowledge.

In summary, it seems to be possible to talk about the use of TD in the Portuguese class, which: i) the PT makes a greater and more varied integration of TD in the learning; ii) the selection and uses that PT makes of TD are determined by the pedagogical tasks and domains and subdomains of the Portuguese; iii) the teachers present neutral and relatively limited uses of TD in Portuguese learning.

C) Training in TD

We wanted, within this category, to identify which training in educational technology had the participants acquired. As can be seen in Figure 4, while the teacher training was already developed in the exercise of their professional activity, the formation of PT was acquired in the context of initial training. Five of the teachers revealed that they had the level 1 digital competency certificate, and that it was attributed to teachers who showed proof of having knowledge for an instrumental use of ICT as functional tools in their professional context (ordinance no. 731/2009). In addition to this data, all the teachers stated that they have attended in recent years various actions of continuous training in the field of information and communication technologies applied to education.

This training was mainly focused on the Microsoft Office and Open Office productivity tools, especially multimedia presentations, spreadsheet and word processor programs. Some teachers report having attended many hours of ICT training, but they have difficulty remembering with some precision what it would consist of. However, the teachers' concern to develop skills for the use of TD in learning is still perceived, and, in this sense, the sharing of experiences and information that they perform among peers in their professional contexts is used, although we believe that it is usually, and marked by an instrumental and unreflective logic.

Categories	Training	Teachers	Preservice teachers
Certificate of Digital Competence	Certificate of Digital Competence (N1)	5	
Continuous Training (9th article of the legal regime)	General: Windows apps and programs	15	
	Educational platforms	1	
Training (in the context of initial training)	Digital Technologies (on education)		15
	Portuguese language teaching (and digital technology) Master's degree		15

Figure 4 – ICT training

Regarding the formation of PT, as shown in figure 4, it is clearly different from that observed in teachers. In fact, the EP declared to have had, during the Degree in Basic Education, a curricular unit oriented specifically for the technologies in educational environment. And in this context, they explored the theme around digital educational resources; platforms and repositories; emerging digital technologies and trends, challenges and important developments in education technology. However, and in a particularly specific way, within the scope of the Didactics of Portuguese course, they had the opportunity to develop knowledge about the integration of TD in Portuguese learning. They not only deepened the technological knowledge but also articulated it with the pedagogical and didactic specificities of the Portuguese curriculum. In fact, the PTs had highlighted the importance about the opportunity to find a huge variety of technological resources ((software, technologies applications, electronic educational portals, Web pages), and to understand how to access it in a free way. To know resources are important condition for technology integration (Tondeur et al., 2012). Thus, they did the pedagogical exploration of the TDs, designing innovative learning scenarios and planning didactic sequences, always in a reflexive process between the content of the learning, the pedagogical function and strategy and the potentiality of TD, aiming at a significant and critical practice. It was unequivocal in the statements of the EPs given in the interviews that the more contextualized and specific training they developed in the curricular unit of Portuguese Didactics was crucial for the subsequent integration that they made of the TD in the real classroom context during the Supervised Teaching Practice. This finding is consistent with other studies that indicate the importance of future teachers having adequate opportunities to observe, practice, or model the effective integration of technology in the classroom (Mouza et al., 2017; Shinas et al., 2015; Tondeur et al., 2012). When we cross the data obtained between category B - Use of TD in the Portuguese class with the data of category C - Training in TD, it seems legitimate to interpret that a more specific and realized formation in line with the objectives and contents of learning has as a consequence, more sustainable and effective practices of integration of TD in Portuguese class. The PTs also reported the collaboration with peers, the supervisor's feedback and think over the the role of technology in Portuguese class. This is also an evidence reported in research (Mouza et al., 2014; Scherer, Tondeur, Siddiq, & Baran, 2018a)

4. Conclusion

The title we chose for this study - Challenges of digital and teacher training - aimed to highlight some critical aspects that can support teachers' learning for the effective integration of TD in the classroom. We identified these aspects based on practices reported by teachers and by PT, and from the TD formation that the two groups acquired. We cross over these data and find evidence in favor of a training conducted in the context of a specific didactics . In this understanding, three learning ideas for the integration of TD in pedagogical context are highlighted: i) the knowledge and technological skills that teachers acquire are not sufficient conditions for the curricular use of TD in learning (Lei, 2009; Margaryan, Littlejohn, & Vojt, 2011); ii) technological knowledge is necessary, but oriented to the way it interacts with the pedagogical knowledge and knowledge of the content of each particular discipline (Koehler & Mishra, 2009; Mathew J. Koehler, Punya Mishra, & William Cain, 2013; Scherer et al., 2018b; Tondeur, 2018); iii) initial and continuing teacher training for TD should be based in authentic teaching situations and contexts (Ottenbreit-Leftwich et al., 2012; Tondeur et al., 2012; Tondeur et al., 2016). Important is not to use technology per se, important is to create learning environments adapted to the

reality of schools and students today, technologies are part of this scenario and are there to diversify methodologies, flexible practices and enhance learning. The results of this study help to recognize the importance that must be given in the preparation of future teachers for the effective use of technology in Portuguese class. Studies with more significant samples are needed.

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Low Attendance and Transition Rates of Women at the Tertiary Level: Impact of Internet Innovation in Ghana

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Abstract

Ghanaian education industry, especially at the tertiary level has witnessed progressive growth over the years. As a result of this, technology is required to sustain this progress since technology has become a powerful tool for women to further their education without experiencing any role conflict. However, of great concern are the challenges such as gender imbalance, the high cost of tertiary education, women's inability to secure ICT equipment. Based on this, the study examined the relationship between Internet Technology (IT) accessibility and women's tertiary education in Tamale. The quantitative case study was adopted as research design and using purposive sampling procedure also supported by simple random sampling for data collection. A chi-square test was employed to examine the causal relationship between internet technology availability and women's education accessibility. It was discovered that there is a strong positive relationship between internet availability and women's accessibility to tertiary education. The study also disclosed satisfactory ICT infrastructure, the growth of internet usage for learners pursuing tertiary education. Gender imbalance, the high cost of tertiary education, women's inability to secure ICT equipment and the role conflict between domestic and tertiary education were also discovered. Based on these findings, the study recommends the construction of a strong and resilient Fiber Optic System (FOS) should be treated as a top priority by the National Communication Authority (NCA). To achieve this objective, there should be Public Private Participation (PPP) so as to ensure cost-sharing between the government and the private sector and also prevent the overburdening of either the public or the private sector. Universities should consider incorporating e-learning systems as part of the medium of instruction so as to address the role conflict which normally occurs between women's domestic chores and their urge for advanced and further educational pursuit.

Key Words: Tertiary Education, Women, Internet, Innovation Technology, Accessibility, Enrollment.

INTRODUCTION

On the premise of the famous quotes of Dr. James E. K. Aggrey (1928), "if you educate a man you simply educate an individual, but if you educate a woman, you educate a family." This and many others emphasized the

significance of women education. African higher education, at the beginning of the new millennium, faces unprecedented challenges. Not only is the demand for access unstoppable, especially in the context of Africa's traditionally low postsecondary attendance levels, but higher education is recognized as a key force for modernization and development (Damtew T. & Philip G. Altbach, 2004). Surprisingly, enrolment at the basic level in Ghana went up from about 500,000 students in 2004-2005 to more than 800,000 in 2005-2006, an increase of 67 percent (Ministry of Education, 2010). During the same period, the basic net enrolment rate increased from 59.1 percent to 68.8 percent, while net enrolment at the junior secondary level increased from 31.6 percent to 41.6 percent.

Though government's initiatives have helped to increase enrolment at the basic level, the expected outcome targeted at 50-50 male-female ratio at the tertiary education level has not been achieved. From data of Education Sector Performance Report (ESPR) of 2016, reveals further that, at the kindergarten level, Ghana has reached gender parity. The situation is similar at the primary and junior high school level. On the contrary, at the senior high school and tertiary level, gender parity is yet to be attained (UNDP, 2018). A similar situation pertains at the tertiary level where only one-third of tertiary students are female by Institute for Statistical Social and Economic Research (ISSER, 2012; Ministry of Education (MOE), 2017; National Council for Tertiary Education (NCTE), 2018). Moreover, females and males do not fare similarly in terms of completion and transition rates at the second cycle (tertiary) education in Africa which Ghana is part (Elmahdy 2003).

Although women constitute more than half of Ghana's population, they are at a disadvantage in accessing tertiary education. Ghana's Population and Housing Census (GPHC, 2018 est.) put women at 52% of the population and at the same time handle 60-90% of food production, processing, and marketing in the developing world, yet women record low tertiary attendance rate, have lower levels of education and therefore receives low literacy. Moreover, many studies (e.g., UN Reports, 2015; Eliasu and Felicia, 2015) and various approaches by government and development partners had pointed to the need for gender parity in education but failed to specifically outline clear measures that can improve women attendance and transition rate at the tertiary level of education.

This paper emphasizes that Internet Technology Innovation can play a greater role since it improves local knowledge and skills around tertiary education thereby ensuring adequate access to tertiary education through e-learning (Gender Working Group, 2010). This undoubtedly will enable women irrespective of their domestic role as housewives to tertiary education of traditional practices (Eliasu and Felicia, 2015). Learning will be improved using internet innovation and technology tools in presenting assignments electronically, participating in-group chats involving near-simultaneous written dialogue, and giving feedback electronically. In this process, female learners are able to organize their learning independently which make them take over some of the roles of the instructor (Annand, 2011).

That notwithstanding, due to population growth in Ghana, there is a need for more access to tertiary education for the growing number of college-aged students, who already compete for a limited number of universities in the country (National tertiary education (NTE), 2014). Amid growing population rates and an expanding women base, Ghana and other countries in West Sub-Saharan Africa is racked with the socioeconomic crisis.

In view of that, the study, therefore, seeks to assess the causes of the widened gap for women at the tertiary education in Ghana. The study also attempted to contribute to knowledge by exploring the influence of ITI through e-learning in dealing with the mismatch between the technology tools and female learners pursuing tertiary education at their respective campuses in Tamale in the northern region of Ghana.

LOW ATTENDANCE AND TRANSITION AT THE TERTIARY LEVEL

Although literacy has been high on the development agenda over the past decades, that about 750 million adults; two-thirds of whom are women, still lack basic reading and writing skills, according to the latest available data for 2016 (UNESCO Institute for Statistics (UIS), July 2017). In similar data, the majority of countries missed the

Education for All (EFA) goal of reducing adult illiteracy rates by 50% between 2000 and 2015. At the global level, the adult and youth literacy rates are estimated to have grown by only 4% each over this period.

Apart from the low enrollment numbers, Ghana's tertiary education sector faces additional problems. As in the whole education sector, there are huge inequalities according to gender. In addition to socioeconomic, cultural, political challenges and strict policies for university entry are also limiting factors in accessing tertiary education in Ghana. According to statistics of the National Council for Tertiary Education (NCTE), in 2017 two thirds of all applicants to universities were denied. The strict selection is caused by a lack of university places, costing Ghana a lot of potential talent. Deliberate government policy which denies people access to tertiary education most of whom are women.

Ghana's population is characterized by people aged 24-35. This category of people receives 7 years of schooling. Females, on the one hand, receive a lesser score of 5.9 years of schooling. Their male counterparts, enjoy 8.1 years of school (UNDP, 2014b). Similar figures reflect in UNDP reports for 2018. These data show a disparity in education accessibility between the male and the female's citizens of the country.

Attainment of tertiary education starts with primary and secondary school education; however, in Ghana availability becomes a factor in accessing tertiary education (UNESCO, 2012). Out of 375,000 Ghanaian students take the Basic Education Certificate Examination (BECE) at the end of ninth grade to qualify for senior secondary/high school, and only 150,000 can be admitted to the 500 public and 200 private national secondary schools (GES, 2016). This represents significant percentage non-transition to the senior secondary level. However, this brings a significant drop of students to continue by reducing their chances at the tertiary level of education.

That notwithstanding, prior to the completion of senior secondary school, students must take the (WASSCE) West African Senior Secondary Certificate Examination. Based on exam results, only 53% of grades are credited passes, which qualify applicants for postsecondary school (GES, 2017). Ghana's 140 accredited tertiary institutions enrolled 300,000 undergraduates, graduate, certificate and diploma programs. Among this figure, Affortey (2015) revealed that women are always a disadvantage.

INTERNET INNOVATION TECHNOLOGY IN GHANA

Most towns and cities in Ghana have improved mobile phone usage and Internet accessibility (UNDP, 2012). In Amenyedzi et al. (2011) improved connectivity, infrastructure improvements, and the promise of prospect innovations in wireless technology present an opportunity for a bright future in ICT accessibility in Ghana. In the interim, high utilization of cellular wireless signals purchased as bundles is resulting in increased usage of social media platforms and improved communication. Students in most tertiary level program access internet with bundles.

Furthermore, in acknowledging increased ICT usage, Ghana and other numerous countries have successfully integrated ICT courses into the secondary school curriculum. For example, Ghana introduced ICT into the senior high school curriculum in 2008 (Amenyedzi, Lartey, & Dzomeku, 2011). Trends indicate that there are changes which result in access. Increase in education and industry are finding a new market in Africa. But the major barriers to ICT in Ghana include skills, energy, and internet connectivity (A. T. Kearney's index, 2007-2010).

The linking of internet points of presence to all district capitals under the ICT backbone development is being undertaken by the government with support from Huawei Technologies (Ministry of communications, 2015). Move that will provide availability and expand access to internet usage in the country. But with the current Ghana telecom enjoying a monopoly, access to the SAT-3 submarine cable kept both local and international bandwidth prices relatively high, and internet connectivity is not always reliable with further downloading speeds remain slow.

According to Ghana ministry of communications (2010), the government is carrying out a second phase of the National Communication Backbone Network to continue to cover more districts that were not covered by further allowing four new international cables that will land stations in Ghana: Glo One, Main One, WACS, and ACE. Soon the country will have more international bandwidth approaching 20% of current prices (A. J. Whiteman, 2010). However, these efforts make internet visibility in the country further closer to the people and for the benefit of many sectors including education most especially at the tertiary. Though advancement in access is obvious in Ghana since 17.11% of the population has access to the Internet infrastructure, an increase from 9.5% in 2013 (UNDP, 2013, p. 188; 2014b, p. 211).

THEORETICAL FRAMEWORK

The theoretical framework for this study is based on the three philosophical orientation namely connectivist pedagogy, cognitive-behaviorist pedagogy as well as the constructivist pedagogy. In expatiating on the theory under consideration, Anderson and Dron (2011) referred to the first orientation which is the connectivist pedagogy as a perspective that deals with how people from different background and orientations through various efforts and initiatives acquire knowledge for their own individual advancement or social status. This is termed as epistemological assumptions in the philosophical orientation and as one of the three generations of education pedagogy. The second philosophical orientation according to Anderson and Dron (2011) is the cognitive-behaviorist pedagogy. This as Anderson and Dron (2011) comprises two major theories of learning, and its focus on changes in behavior or knowledge. In this perspective, learning is considered as individual development and teaching as transmitting content to learners.

Constructivist pedagogy builds on a number of learning theories that recognize the social nature of knowledge and its establishment in the minds of individual learners (Anderson & Dron, 2011). The perspective also supports the teaching role of guiding learners to actively incorporate prior knowledge leading to the construction of new facts and information. The connectivist pedagogy thus reflects on emergent theories of knowledge, which is devoid of explicit correlation between pedagogy and learning theory that is evident in cognitive-behaviorist and constructivist pedagogy. Connectivism is mostly connected with work by Stephen Downes and George Siemens. According to Downes (2012), connectivism is the thesis which indicates that; facts of data are dispersed across a network of connections. This implies that, learning consists of the ability to construct and pass through those networks for the benefits in the knowledge industry. Networks that comes in the form of systems theory shows the properties of diversity, autonomy, openness, and connectivity, the connectivist pedagogy “seeks to describe the practices that lead to such networks, both in the individual and in society” Downes (2012) through learners’ practice and reflection, supported by teachers’ demonstration and modeling.

Siemens (2005), portrayed networked learning as a division of connectivism, related to connectives' key principle of network formation, with less focus on "presenting information and more lying is emphasis aimed at improving on the learner's ability to analyze the information obtained. Siemens, in particular, proposes that blogs, wikis, and other collaborative tools with which learners create, connect, and share knowledge replace the chronological presentation of content and activities typical of earlier generations of pedagogy.

According to Siemens, in connectivist pedagogy, teachers generate a healthy knowledge environment in which different social networks can thrive, enabling learners to develop links among themselves for the purpose of improved learning outcomes. McLoughlin and Lee's (2008) emphasized the fact that, pedagogy represents the methodology for learning- that focuses more on learning process than on learning outcomes. The key elements of the pedagogy paradigm are personalization, participation, and productivity. Within these, there exist principles that are related to the self-paced learning with connectivist pedagogy. Digital technologies for interaction and communication undoubtedly serve to simply repeat activities that are already present in conventional group-based learning (Dehoney & Laurillard, 2007). However, social media may have the potential to transform the self-paced study (Anderson, 2009; Anderson et al., 2010). Connectivist pedagogy may enable learners in self-paced courses to meet others within and outside their course, form communities, and support each other in their varied learning activities without relinquishing the freedom to study at their own pace. In view of the literature, the study intends to propose an interactive model of women education with the aid of innovative technology to contribute to improving the situation at hand.

INTERACTIVE MODEL OF WOMEN EDUCATION WITH THE AID OF INNOVATIVE TECHNOLOGY

The interactive model involves the interplay of practical building blocks of knowledge acquisition at the tertiary level. This constitutes the individual level, the pedagogical approach used by the school (pedagogical level) and the instructional body (organizational level).

At the individual level, there is Learner-learner interaction (LLI) which is regularly characterized by collaboration at various study groups as well as learning centers. This ensures effective learning since the interactions are capable of reducing learners' sense of isolation and fostering feelings of being part of a learning community. However, Thurmond and Wambach (2004) put forward the argument that, encouraging learners to take part in collaborative activities can also reduce students' perceived levels of satisfaction with the course. For distance education institutions, efforts to increase learner-learner interaction may be constrained by increased costs per student enrolment. While learner-learner interaction is usually regarded as a positive feature for an online course determined by the electronic media, in many instances this type of interaction requires that learners sacrifice some of their freedom to choose, control, and take responsibility for aspects of their learning.

Self-determined learning is a permanent feature at the individual learner level. In self-determined courses, individual learners decide on the rate at which they work through their course, as well as when they will complete learning activities and assignments. Knowles' (1984) model of pedagogy suggests that adults' need to know and their reliance on background experience are powerful incentives and enablers for self-paced learning. Self-determined learning makes it possible for students to work more rapidly through familiar topics or slow down to focus on new material (Paranto & Neumann, 2006). These advantages of self-determined study are frequently affected by certain challenges, including difficulty incorporating learner-learner interaction on the first appearance.

At the organizational level which normally is referred to as the educational institutions in the learning circles set out course structure. It is possible for the Universities to offer multiple start dates per year (e.g., monthly or continuous intake). By accommodating students' availability and individual schedules, the schools now designs its curriculum through which intends determines the pedagogical approach in the delivery of lecture and other forms of instruction. This, therefore, determines learner achievement in self-determined environments. Conversely, Ostiguy and Haffer (2001) found no significant differences in learner achievement in course whether students learned in a traditional classroom, through synchronous television broadcasts, or at their own pace online. This implies that Ostiguy and Haffer (2001) do not see any for improved technology at the tertiary level of women's education.

METHODOLOGY

The metropolis has a population of 371,351, accounting for 14.98% of the total population of the Northern Region of Ghana (Ghana Statistical Service, 2018). In terms of sex distribution/ratio, there were 185,995 males and 185,356 females in the metropolis; the sex ratio of male to female was 1.01:0.10 and annual growth rate of 4% in 2010 (Ghana Statistical Service, 2018).

The total figure of two hundred (200) respondents was considered as the target population for the study. Of which, one hundred and twenty (120) out of the initial figure was arrived at using Yamane (1967) statistical formula to determine the sample size for the data collection. Questionnaires were used to source data from female students, tutors and male respondents as well. Inferring from the above, the study adopted both probability sampling such as simple random sampling (to increase external validity) and non-probability sampling namely purposive sampling techniques (to increase transferability) procedures.

Probability and non-probability sampling techniques were used, the probability sampling techniques involved simple random sampling (SRS) which was adopted to select both female and male respondents, the majority of which were females at the tertiary institutions. Non-probability techniques, on the other hand, included

purposive sampling techniques were employed to select tutors, heads of schools and administrators of tertiary institutions. Female students, male, tutors, heads of schools and administrators were the target population and data were sourced from these categories of respondents through the use of semi-structured interview guides and questionnaires. This was due to the fact that, players in the educational sectors are experts capable of establishing a relationship between improved internet technology and female education at the comfort of their homes.

DISCUSSION OF RESULTS

This section basically deals with the relationship between Internet Technology (IT) Access and Women tertiary education in the metropolis, challenges women to face in their attempt to further education at the tertiary level and the appropriate strategies that could facilitate the effectiveness of e-learning or is termed as learning by the internet.

The relationship between internet technology (IT) availability and women access to tertiary education.

The study in this section sought to examine the extent to which Internet Technology (IT) availability relates directly to women's tertiary educational accessibility in the Tamale Metropolis.

Table 1.0: Responses of Relationship between Internet Technology (IT) Access and Women Tertiary Education in Tamale

<u>Identified variables</u>	<u>Responses from the field</u>		<u>Total</u>
	<u>Related</u>	<u>Unrelated</u>	
ICT infrastructure accessibility in Tamale is satisfactory	10	5	15
There is the growth of internet usage for educational purposes	15	5	20
Online submission of assignment has enabled female students to to meet deadlines	8	2	10
Lectures notes and reading handouts are obtained through students' e-mail	13	7	20
The social media connects other learning centers across the metropolis.	10	10	20
Women are able to learn and work at the same due to technology.	10	5	15
Total	66	34	100

Source: Field survey, August 2018.

The study in this section sought to examine the extent to which Internet Technology (IT) availability relates directly to women's tertiary educational accessibility in Tamale. As indicated in table 1, revealed the causal relationship between internet technology availability and women education accessibility. It studies discovered that there is a strong positive relationship between internet availability and women accessibility to tertiary education. The study also disclosed satisfactory ICT infrastructure, the growth of internet usage for learners pursuing tertiary education. Online submission of assignment meet deadlines dates, and lectures note and reading handouts obtained through students' e-mail, social media connecting learning centers across the metropolis and women are able to learn and work at the same due to IT were also discovered significant. This represents 66 percent of the entire responses using the identified measurements. This, however, goes to support the alternate hypothesis of the study. Which is stated as there is a significant relationship between internet access

and women tertiary education. This further supported by Mushin (2008) which clearly states that the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance of women education at the tertiary level, further support the stand. On the hand, only 34 percent of the responses revealed a weak relationship between the two variables- internet technology access and women tertiary education.

Hypothesis

Ho: there is no significant relationship between internet access and women tertiary education.

H₁: there is a significant relationship between internet access and women tertiary education.

Determining critical value: -Critical value was determined using the degree of freedom= (Rows-1) (Column-1) = (6 – 1) (2 – 1) = (5) (1) = 5, obtained from Table 1.0 above. Given the alpha level ($\alpha=0.05$), and readings from the four-figure table, the researcher, arrived at **11.07** as the critical value (chi-square critical).

- Compute the test statistic using the formula

$$X^2 = \sum \frac{(fo-fe)^2}{fe}, \quad \text{where } fe = \frac{(\text{Row total})(\text{column total})}{\text{grand total}}$$

fe is therefore calculated as follows:

$$\text{CELL A} = \frac{15 \times 66}{100 \times 100} = \frac{990}{100} = 9.9/10$$

$$\text{CELL B} = \frac{20 \times 66}{100 \times 100} = \frac{1320}{100} = 13.2$$

$$\text{CELL C} = \frac{10 \times 66}{100 \times 100} = \frac{660}{100} = 6.5$$

$$\text{CELL D} = \frac{20 \times 66}{100 \times 100} = \frac{1320}{100} = 13.2$$

$$\text{CELL E} = \frac{20 \times 66}{100 \times 100} = \frac{1320}{100} = 13.2$$

$$\text{CELL F} = \frac{15 \times 66}{100 \times 100} = \frac{990}{100} = 9.9/10$$

$$\text{CELL G} = \frac{15 \times 34}{100 \times 100} = \frac{510}{100} = 5.1$$

$$\text{CELL H} = \frac{20 \times 34}{100 \times 100} = \frac{680}{100} = 6.8$$

$$\text{CELL I} = \frac{10 \times 33}{100 \times 100} = \frac{330}{100} = 3.3$$

$$\text{CELL J} = \frac{20 \times 34}{100 \times 100} = \frac{680}{100} = 6.8$$

$$\text{CELL K} = \frac{20 \times 34}{100 \times 100} = \frac{680}{100} = 6.8$$

$$\text{CELL L} = \frac{15 \times 34}{100 \times 100} = \frac{510}{100} = 5.1$$

Table 2.0: Computation of the Test Statistic

CELLS	Fo	Fe	(fo- fe)	(fo- fe) ²	$\frac{(fo-fe)^2}{fe}$
A	10	12	-2	4	0.33
B	15	13	2	4	0.30
C	08	7	1	1	0.15
D	13	14	-1	1	0.07
E	10	12	-2	4	0.33
F	10	11	1	1	0.09
G	05	4	1	1	0.25
H	05	7	-2	4	0.57
I	02	3	-1	1	0.33
J	02	5	-3	9	1.8
K	10	8	2	4	0.5

L	05	4	1	1	0.25
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Source: Researcher's construct

$$X^2 = \sum \frac{(fo-fe)^2}{Fe} = 4.97$$

Decision Making

Computed chi-square which is 4.97 or 5 when compared with the critical chi-square (11.07), it is quite obvious that the computed chi-square is less than the critical chi square; therefore, the researcher upheld the null hypothesis that there are no significant relationship between Internet Technology (IT) access and women tertiary education in Tamale. It implies that failing to reject the null hypothesis does not prove that the null hypothesis is true; it means that we have failed to disprove the null hypothesis. The explanation further showed that to prove without any doubt that the null hypothesis is true; the population parameter would have to be known. To actually determine it researchers, have to count every single item of the population, and this is not feasible. The alternative is to take a sample from the population (Douglas et al., 2000).

Challenges Women Faced in their Attempt to Further Education at the Tertiary level in Ghana

The identified challenges are presented and analyzed in Table 3.0 below.

Table 3.0: Challenges faced in Women's Education

Reasons	Strongly Agree	Agreed	Uncertain	Strongly Disagree	Disagree
Gender imbalance has create disparity in education between male and female.	35	30	0	20	15
High cost of tertiary education.	40	35	0	15	10
Women inability to secure the ICT Equipment for tertiary education	50	28	0	14	18
Role conflict between domestic chores to tertiary education.	60	22	0	10	08
Chi-square					11.000^c
Mean					2.1500
Std. Deviation					1.06719

Source: Field Work, 2018.

Several challenges which negatively affect women's education are clearly indicated in Table 3.0 above. These challenges include gender imbalance, discouraging women education, women's inability to access ICT equipment as well as unfair and inequitable educational opportunity have undoubtedly affected women's access to tertiary education. In the same vein, the critical chi-square (11.07) is said to be more than the computed of 4.97 [obtained from computations given by degree of freedom (c-1) (r-1) calculated as (6 - 1) (2 - 1) = (5) (1) = 5]. Based on the above, the study failed to accept the challenges in table 3.0 above which most people regarded as factors hampering women's access to tertiary education.

Appropriate Strategies That Could Facilitate the Effective internet-based learning

Table 4.0: Strategies Aimed at Facilitating the Effective E-Learning Systems

Strategies	Frequency	Percentage
Educational campaign by National Community Authority (NCA).	35	29.17%
Introducing Computer Science at the senior secondary level as a core subject.	25	20.83%
The construction of a strong and resilient Fiber Optic System (FOS).	25	20.83%
Universities should consider e-learning Systems as part of the medium of instruction.	35	29.17%
Total	120	100%

Source: Field Data, 2018.

Relative to the strategies aimed to facilitate effective internet-based learning or E-Learning systems are presented, analyzed and discussed. As observed in table 4.0, 29% of the respondents held the view that, an educational campaign organized by the National Community Authority (NCA) could influence women towards the acceptance of e-learning systems in Tamale. On the issue of introducing Computer Science at the Senior High Secondary level as a core subject, 21% of the respondents thought this could serve a good purpose among other strategies that could go a long way to promote e-learning among women at the tertiary level.

Furthermore, 21% of the respondents considered the construction of a strong and resilient Fiber Optic System (FOS) as one of the strategies aimed at enhancing internet base learning since the FOS could make the internet more reliable and accessible in not only the Tamale Metropolis but in all other parts of Ghana. Universities' consideration of e-learning systems as part of the medium of instruction according to 29% of the respondents can also be a good strategy towards making internet learning more attractive, especially to the women folk.

CONCLUSION

Technology plays a significant role in all aspect of human endeavor including tertiary education; this indeed has improved the telecommunication industry and education in general. This is, however, to the detriment of women's education at the tertiary level due to challenges such as gender imbalance, the high cost of tertiary education, women's inability to secure ICT equipment and the role conflict between domestic and tertiary education. In spite of the challenges, internet technology has proven over the years to have tremendous benefits to the overall performance of organizations including educational institutions.

The importance of internet technology to education is highlighted in the study and included the growth of internet usage for learners pursuing tertiary education. It also includes online and offline submission of assignments to meet deadlines dates, and lectures note and reading handouts obtained through students' e-mail, social media connecting learning centers across the metropolis and women are able to learn and work at the same due to IT were also discovered significant. As a matter of fact, the acceptance and application of innovative technology by public institutions including those in the educational sector, especially internet connectivity are of grave importance. It is, therefore, critical that suitable steps are taken so as to ensure the effective implementation of technological facilities in public institutions.

RECOMMENDATION

In order to strengthen the effectiveness of technology aimed at the tertiary educational level, the recommendations indicated below when considered could go a long way to ensure improved performance of women in terms of

enrolment and transition at the tertiary level. However, to further encourage the use of internet technology at the University level, the authorities of the University should take advantage of the country further expanding internet access to cover all districts in the country, by liaising with telecommunication companies to established robust and reliable internet facilities at the various institutes of distance learning to further strengthen the availability and accessibility of tertiary education for women.

Again, though most of the respondents had Diploma in education, they should be encouraged and assisted by way of scholarship provision, and study leave with pay to enable women, in particular, to further their education in order to improve on their low educational qualification.

Admissions into the tertiary educational institutions should be skewed in favor of women as well as making it as a top priority so as to bridge the gender imbalance in the educational sector at the tertiary level.

The Research and Development (R&D) unit of the Universities should probe further into more details through research to determine the real state of affairs concerning the role of technology on women education. In view of the fact that, there is adequate ICT infrastructure leading to growth of internet usage, online submission of assignment as well as lectures notes using e-mail, the above modalities should be consolidated into the general overall strategies of the Universities in order to further boost the use of the internet for educational purposes by women.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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Data Availability Statement

Secondary data for this study can be accessed from the websites of Ghana Ministry of education, an annual report from 2010 to 2018.

World Bank report on SDG goal 4, target 4.3 which ensures by 2030 equal access for all women and men to affordable quality tertiary education, 2018.

Primary data of this study can be accessed by contacting the authors of this study.

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How to Cultivate Application-Oriented Undergraduates – The Growth Path of an Outstanding Graduate on E-Commerce Major

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Abstract

Under the background of the “Internet Plus”, the e-commerce industry is in rapid development, and its demand for talents is increasing. However, the e-commerce major is a new interdisciplinary field, and the colleges and universities are still in the stage of exploration in training and cultivating the talents. For now, the talent training and the social demand are still not well adapted, and the problem of low-quality of employment exists in e-commerce graduates. In recent years, Shenzhen Campus of Jinan University has been building foundation on the improvement of quality of personnel training and committing to the construction of a bridge between the university and the market since more than 10 years ago. It attempts to promote teaching reform by combining teaching with practice and theory with technology to cultivate application-oriented high-skilled talents. The research object selected in this case is one of the first e-commerce graduates of Shenzhen Campus, who is currently the general manager assistant of Invengo Technology Pte. Ltd., Ms. Xu Xiaonan. By analyzing her personal growth trajectory and employment history, the study attempts to analyze the mechanism and system of how individual growth cooperates with the accomplishment of the objective of talents training and takes the case as the referential experience and example for the cultivation of application-oriented talents in e-commerce undergraduates of the universities.

Key Words: E-Commerce, Talent Cultivation, Teaching Program, Application-Oriented High-Skilled Talent

1. Introduction

1.1 Research Background

1.1.1 Industry Background and Status of Talent Demand

The origin of e-commerce can be traced back to the 1970s, when the banking sector introduced electronic funds transfer (EFT). With the commercialization of the Internet and the continuous increase in the number of Internet users in the 1990s, international e-commerce started to be used by a large number of companies (Robert D. Hisrich & Veland Ramadani, 2017). E-commerce reached China relatively late, but since the introduction of the concept to China in 1995, it has developed rapidly with the guidance of the government and improvement of Internet infrastructure. In 2005, after the severe test created by the bursting of the dotcom bubble, e-commerce in

China rose from a trough, seizing the development opportunity offered by the improvement of the Internet environment and the popularization of e-commerce theory. China's e-commerce industry entered a period of high-speed development and business model innovation.

According to the 2017 Annual Development Report on China's E-commerce, the recent emergence of innovative business models such as the sharing economy and online-to-offline commerce has become an important driving force for the rapid development of online retail services, successfully reversing the decline in e-commerce retail growth in 2013 and realizing a new round of acceleration of online retail. At the same time, new retail innovation projects are carried out with the cooperation of traditional retailers and relevant technical service providers, and the unmanned retail industry, which is dominated by unmanned retail stores, has landed in China.

Not only has e-commerce retail developed rapidly, but in 2017, China's rural e-commerce also achieved significant results. In the last five years, with the gradual popularization of the Internet, China's rural netizen population has gradually expanded. By 2016, rural online shop size had reached 8.32 million, representing 20 million of the employed population. The rapid development of rural e-commerce has also significantly alleviated poverty, as widespread rural e-commerce prospects have promoted rural youth employment and entrepreneurship. Logistics enterprises have gradually penetrated China's township areas, achieving more than 80% of the country's network coverage and largely meeting the service needs of 590 million rural people.

In addition, cross-border e-commerce is booming and has become an important driving force for China's foreign trade growth. From 2013 to 2016, China's cross-border e-commerce retail exports reached an average annual growth rate of nearly 60%. The United States, the EU and the Association of Southeast Asian Nations are the main export destinations for cross-border e-commerce in China. Amazon, the main export channel for Chinese enterprises, exported goods worth more than 300 billion yuan in 2016 alone.

China's e-commerce holds an unsurpassed position worldwide, with 40% of the global market share. According to data in 2016, the value of online shopping in China has reached 750 billion US dollars. The e-commerce industry continues to grow rapidly, bringing about sustained economic benefits. However, according to the latest report, "Survey Report on China's E-commerce Talent Situation in 2016", the employment situation in the e-commerce industry is less positive, with 85% of e-commerce enterprises facing a talent gap (10% higher than the previous year). In terms of personnel, 40% of e-commerce enterprises lack operational personnel. The demand for sales promotion talents is 26%. The demand for comprehensive senior talents is 12%. The demand for product planning and R&D personnel, technical personnel and chain management personnel is 9%, 5% and 4%, respectively. China's e-commerce industry thus faces the obstacles of a large talent gap, high recruitment pressure, high labor costs and management difficulties.

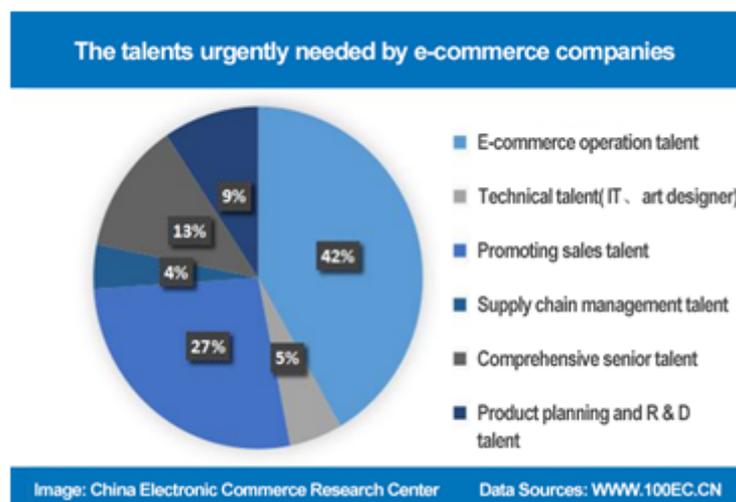


Figure 1. 2016 China E-commerce Talent Survey Report

1.1.2 Current Situation of Professional E-commerce Training in China

In 2001, e-commerce majors first appeared in 13 colleges and universities nationwide, and with the rapid development of the industry, the demand for and popularity of professional e-commerce training have increased day by day. In 2016, 528 undergraduate colleges and universities across the country offered e-commerce majors, admitting 115,000 students. Meanwhile, this major is offered by 33 of the 53 universities in Guangdong, most of which are not specialized schools, such as medical and engineering universities and sub-campuses of non-local universities like the Zhuhai Branch of Beijing Normal University. Evidently, due to supportive policies and the rapid development of the industry, e-commerce has become a core major in many key universities, even though it is a new and interdisciplinary subject. E-commerce curriculums involve many disciplines, such as management, economics and computer science, and can be affiliated with a wide range of colleges. Over the years since their establishment, e-commerce majors have formed an educational pattern of “multi-mode coexistence”. Innovation in and the development of the e-commerce industry have resulted in multi-level market demand for e-commerce talents, such as managerial talents, technical talents, business (application) talents, and teaching and scientific research talents. With the industry’s rapid development, knowledge transfer in universities is unable to keep up with market demand, and has gradually become disjointed from the industry.

In 2004, the e-commerce profession received considerable attention for its initial employment rate: only 20%. According to data on the employment rates of some undergraduate majors released by the Ministry of Education in 2013, although e-commerce major is a “hot” major, it is a “cold” major in terms of employment rate (pretty low), due to the policy of “starting first and then building” chosen by many universities in the early days of e-commerce major construction. In recent years, in response to the Ministry of Education’s request to deepen the reform of vocational education to bring all-round improvements to the quality of personnel training, many colleges and universities have carried out teaching reforms in these areas, improving teaching quality management and practical education. In 2016, China’s undergraduate e-commerce professional employment rate reached 93.32% (Anonymous, 2016), ranking 42nd among all subjects at colleges and universities. In 2017, the employment rate of undergraduate e-commerce rose slightly to 94.6%, ranking 14th, according to MyCOS’s annual report on the employment of Chinese college students. Relevant information on the employment rate of undergraduate e-commerce majors in Guangdong province suggests that the employment rate of e-commerce graduates is generally higher than 90%, and often higher than 95%.

However, in terms of employment quality, the situation does not seem to be optimistic. According to the employment reports recently released by various universities in Guangdong province, the employment correlation of graduates majoring in e-commerce is generally only about 60%, which is lower than that for other majors, and may even fall as low as 41.33%. Some universities, such as South China University of Technology, classify e-commerce majors as lower-quality majors in employment reports, and plan to reduce enrolment and fine-tune professional training programs. For many years, despite the remarkable effectiveness of employment promotion, the problems of low employment quality and a low corresponding employment rate have not been solved.

1.1.3 Problems with Undergraduate Teaching

According to the current situation of e-commerce professional personnel training, we can find that with the rapid development of e-commerce industry, the enterprise’s operational needs put forward higher requirements for e-commerce personnel standards, while the gap between market demand and education supply leads to the deepening of the contradiction between e-commerce personnel demand and the traditional e-commerce personnel training mode, and the problems existing in e-commerce undergraduate teaching in colleges and universities are becoming increasingly prominent.

1) Unclear professional orientation

According to a report entitled “*Survey Report on China’s E-commerce Talent Situation 2015*” released by China’s E-commerce Research Center in conjunction with the professional e-commerce human resource service provider Winning Education, 75% of e-commerce enterprises have a talent vacancy. The demand for e-commerce jobs is shown in Figure 2 below, which indicates that positions needed by enterprises have completely different requirements for knowledge mastery. Nowadays, although many colleges and universities have e-

commerce majors, the e-commerce industry is still at an exploratory stage, and the direction of training of e-commerce talents varies greatly between colleges and universities. As a result, enterprises lack a unified understanding of e-commerce graduates, making it difficult for employers to select new employees. At the same time, e-commerce is a young subject, and the teaching content of e-commerce majors in many schools is often simply a combination of economic management courses and computer courses. The teaching content of proprietary courses is scattered and complex, with a widespread tendency to emphasize concepts and neglect cases (Zou Huasheng, Feng Ling & Li Rong, 2016).

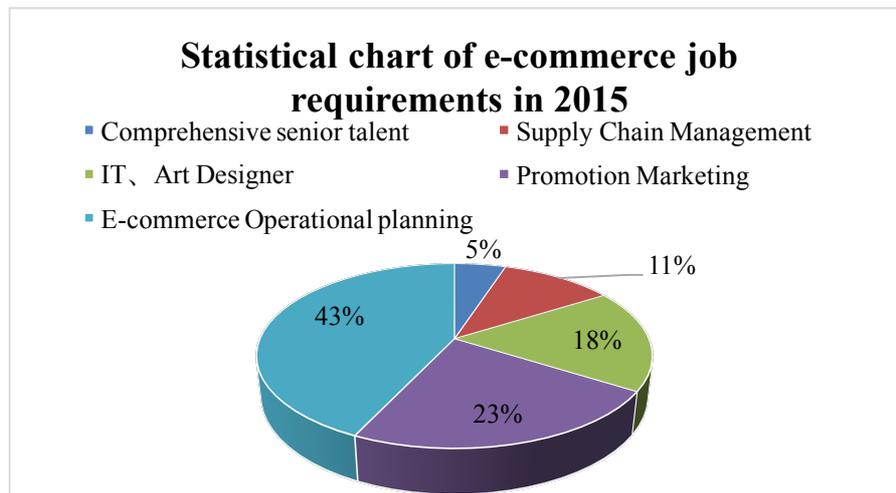


Figure 2. Statistical chart of e-commerce job requirements in 2015

2) Lack of practice

According to survey data obtained by 100EC.CN in 2015, college e-commerce graduates, as among the main sources of talents for e-commerce enterprises, only account for 16% of e-commerce employees, details are shown in Figure 3 below. This means that most e-commerce employees come from training institutions or enterprises, reflecting a mismatch between education and job demand. At present, the e-commerce talents taken on by enterprises often have both basic knowledge of e-commerce and practical experience of the trade. The main reason why e-commerce graduates experience difficulties in finding jobs is that they lack a good practical ability. The general e-commerce education provided in universities is seriously out of touch with the talent demand of e-commerce enterprises, and the theory taught is far from the reality of modern practice. In addition, most students do not have an awareness of the need to actively participate in social practice in their spare time, further weakening their practical ability.

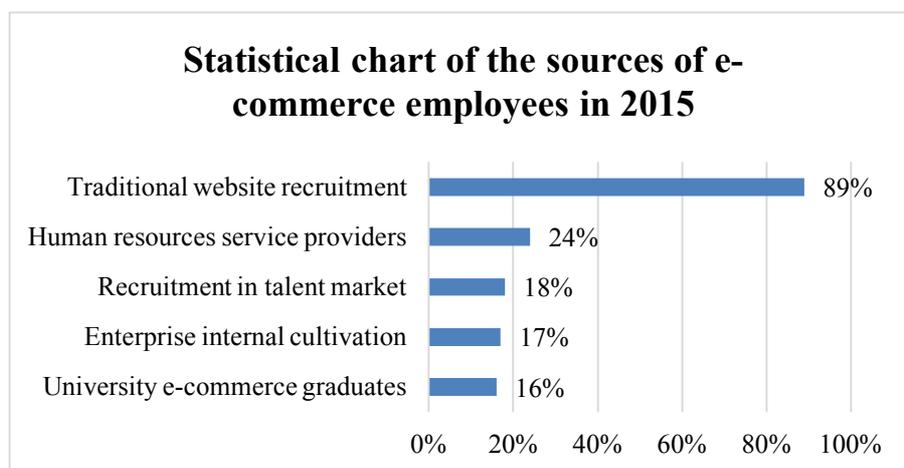


Figure 3. Statistical chart of the sources of e-commerce employees in 2015

3) Insufficient innovation and entrepreneurship education

The increasingly homogeneous e-commerce industry has made the innovation and entrepreneurship model based on “Internet Plus” a new direction for socio-economic and technological development. Entrepreneurship education has been called the “third passport” of education by UNESCO. However, according to the “*China University Student Entrepreneurship Development Report from 2014 to 2015*” released by Xinhua on November 18, 2015, the national entrepreneurship rate of college graduates in 2015 was only 2.86%. The entrepreneurship rate of graduates of higher vocational education was slightly higher than that of graduates of other educational levels, but only 6.77% of college student entrepreneurs received professional and systematic entrepreneurship education, significantly lower than the 20% entrepreneurship rate in Europe and the United States. The reason is that, in China, innovation and entrepreneurship education has not been raised to its proper strategic level in the current application-oriented talent training programs of undergraduate universities (Zhan Mingzhen, 2015). The neglect of innovation and entrepreneurship education in colleges and universities has made it extremely difficult for students to start their own businesses after graduation, and the road for e-commerce inauguration is also extremely bumpy.

1.2 Concept Definition and Theoretical Basis

1.2.1 High-skilled Talents

Since the mid-1990s, with China’s industrial transformation, the phrase “high-skilled talents” has been frequently used in Chinese academia. At a national conference on talent held at the end of 2003, the CPC Central Committee clearly stated that high-skilled talents are an important part of China’s talent team, and included high-skilled talents in the country’s strategic master plan for “reinvigorating China through human resource development”. Subsequently, in the “*2003-2007 Action Plan for Education Revitalization*” issued in 2004, “*Opinions on Further Strengthening the Work of High-skilled Talents*” in 2006 and the “*2010-2020 Outline of National Medium and Long-term Talent Development Plan*” in 2010, the training of highly skilled personnel was listed as a key means of promoting social development and optimizing and upgrading industrial structure.

Yet understanding of the nature of high-skilled talents in China is still narrow. “Skill” refers to simple labor and skill proficiency, which is defined in this paper as narrow skill. Western countries have a broad understanding of skills, emphasizing that they include not only physical but also hidden skills, i.e. mental skills, such as communication skills, interpersonal and social skills and organizational and planning skills (Tang Ni & Shi Weiping, 2011). Such skills can be widely used in different professional environments, are universal and transferable, and are regarded as the basis for becoming a “flexible” and “multi-skilled” worker (Press P, 2004). They are defined in this paper as generalized skills. Given the particularity of the case addressed, skills in this article are understood as generalized skills. Despite years of academic discussion, no unified definition of “talent” has been produced. Based on analysis and comparison of the literature, this paper adopts Zhang Guochu’s definition of talents: those who have high specific abilities, can do creative work and make relatively great contributions to social progress and economic development (Zhang Guochu, 2008).

In China, academic scholars have different views on the definition of “high-skilled talents”. Li Zongyao, the first to define this concept, argues that high-skilled talents are “high-quality workers with the necessary theoretical knowledge, who can master modern equipment, and who can complete difficult or key actions difficult for intermediate-skilled personnel to master in the fields of production and service, and who have the ability to innovate” (Li Zongyao, 2001). Nor has a consensus been reached on the definition internationally. Zhang Guochu believes that the international meaning of “skilled talents” and “high-skilled talents” is broader than that in China and closer to the concept of scientific and technological human resources, and points out that the academic qualifications of highly skilled talents include not only junior college and undergraduate education, but also postgraduate education (Zhang Guochu, 2008). Tang Ni and Shi Weiping identify four main definitions of high-skilled talents, namely 1) all kinds of high-skilled talents in the foreign context, including legal persons, experts and artists; 2) highly qualified workers, that is, those with formal qualifications at a specific level of education (OECD, 2002); 3) professional, managerial and technical experts, and 4) human resources in science and technology, namely human resources that engage in or have the potential to engage in the systematic production, promotion, dissemination and application of scientific and technological knowledge. It is concluded that “high-skilled talents” exist in different occupational groups, covering almost all occupational fields, and

have high educational and vocational qualification requirements (Tang ni & Shi Weiping, 2011). Therefore, synthesizing various definitions of high-skilled talents at home and abroad, this article defines high-skilled talents as highly qualified talents who work with or have the potential to work with systematic scientific and technological knowledge, can integrate theory with practice and are able to innovate.

1.2.2 Application-oriented High-skilled Talents

With the development of society, the traditional academic talents trained by undergraduate colleges can no longer meet social needs, as amply demonstrated in the difficulties experienced by China's college students in finding employment. The requirements society places on highly-skilled talents, and thus on college students, are increasing. To adapt to changes in the diversity of higher education and meet the actual needs of market development, China's "applied undergraduate high-skilled talents education" came into being at this historical moment. In June 2014, the State Council issued its "*Decision on Accelerating the Development of Modern Vocational Education*", pointing out that "a number of ordinary undergraduate colleges and universities should be guided to transform into institutions of higher learning of applied technology by means of pilot promotion, demonstration and guidance". In October 2015, the Ministry of Education, the National Development and Reform Commission and the Ministry of Finance jointly issued "*Guiding Opinions on Guiding the Transformation of Some Local Ordinary Undergraduate Universities to Application-oriented Universities*". Given the problem of "more prominent structural contradictions in higher education, serious homogenization tendency, difficult employment of graduates and low quality of employment", the government proposed the guiding ideology of "promoting the transformation and development of colleges and universities to truly turn their ideas of running schools to serving local economic and social development, to integrating production and education with school-enterprise cooperation, and to training applied technical skilled talents". During the 13th Five-Year Plan, the National Development and Reform Commission and the Ministry of Education launched a project of education modernization to promote the construction of engineering application oriented undergraduate colleges and universities, saying that "100 colleges and universities will be supported nationwide to strengthen the construction of practice experiment and training platforms and bases, deepen the integration of production and education, school-enterprise cooperation and promote the reform of personnel training mode through the project construction". With the support of the Ministry of Education in recent years, the construction of applied colleges and universities has shown good momentum.

Undergraduate education is divided into applied undergraduate education and academic undergraduate education. After so-called "applied undergraduate education" appeared in China, many scholars began to analyze the concept to determine its laws and characteristics. Applied undergraduate education is a professional, generalist form of education that trains specialized technical personnel in a specific technical field and focuses on application. It not only considers students' learning of systematic and solid basic theoretical knowledge, but offers a kind of ability-based education (Yuan Zhaoping, 2008). Compared with the goal of academic undergraduate education, to train academic talents, applied undergraduate education focuses more on the needs of the industry and cultivates students' practical application ability.

Application-oriented undergraduate education should attach great importance to its association with enterprises in terms of school-operation mechanisms and personnel training modes (Chen Xiaohu, 2008). The primary goal of application-oriented undergraduate education is to train application-oriented talents and high-skilled talents needed in all walks of life; that is, industry-specific talents (Zhang Aibang, 2009). In the words of Tian Fuyuan, deputy director of the development planning department of the Ministry of Education, "the key to running an application-oriented university is to strengthen practical teaching and conditions for practical experiments and training". In addition to possessing basic theoretical knowledge, applied undergraduate talents need to keep up with the development of the industry, have the latest knowledge system, apply theoretical knowledge to solve problems and have strong social adaptability. As a subject at the forefront of scientific and technological development, e-commerce undoubtedly requires the fastest application of the latest scientific and technological knowledge (Ji Peng, 2010). Therefore, how to train high-skilled talents enrolled on application-oriented undergraduate courses to meet the requirements of the industry is an important issue to consider when implementing talent training programs for application-oriented undergraduate e-commerce education.

1.2.3 Law of Talent Growth

The growth of talent is not a simple superposition of reading and writing, imitation and practice, but a spiral process that obeys certain rules (Liu Xiang & Zhou Mingxing, 2014). The so-called “law of talent growth” refers to the repeatable one-to-one correspondence or one-to-many correspondence or probabilistic repeated transformation relationship in the process of talent growth under certain conditions (Ma Zhenhua, 2010). Wang Tongxun, president of the China Academy of Personnel Sciences (2006), proposes the following laws governing the growth of talent: the master-teaching and apprentice-inheriting effect; fostering strengths and avoiding weaknesses effect; optimal age effect; the Matthew; and comprehensive effect. Wang Ruohong (2009) believes that talent training should follow the law of gradual progress, pay attention to the law of practice and talents, respect the law of master-teaching and apprentice-inheriting effect and the law of internal-cause leading talents.

Han Wei and Zhang Jiliang (2007) propose in a study of a famous urban enterprise that the development of high-skilled talents is attributed to eight forces, namely the law of internal-cause driving, the law of master-teaching and apprentice-inheriting, the law of job-growing, the law of the growth cycle, the law of the pyramid, the law of using and retreating, the skill to achieve leap in the game and the Matthew effect. In his doctoral thesis, Gao Yan (2008) conducts a detailed study of the law of growth of high-skilled talents, and identifies three key rules: the cumulative effect law based on knowledge acquisition, the inheritance effect law based on skill acquisition, and the age effect law of creativity enhancement. Wen Miao (2016) categorizes the laws of growth of high-skilled talents as external and internal laws, defining the concept of high-skilled talents and analyzing influencing factors. External laws include the law of the times, the law of master-teaching and apprentice-inheriting effect and the law of system optimization. Internal laws include internal-cause driving laws, advantages-accumulating laws and age-effected laws. This paper focuses on the general law of the growth of high-skilled talents proposed by Gao Yan and Wen Miao, and analyzes the process of the growth of talents in this actual case in combination with other scholars’ accounts of the law(s) of the growth of talents.

1.3 Research Methods and Design

1.3.1 Research Methods

“Field investigation”, also called scene investigation or on-site investigation, mainly refers to the process by which researchers personally enter the research field to obtain first-hand information through long-term participation in observation, in-depth interview and personal experience, and to organize and analyze the information obtained to form a theory. It entails various research methods, such as observation, in-depth interviews and theoretical analysis, and it is one of the most common methods in the field of teaching and research (Chen Xiaoduan & Xian Fulian, 2015). Therefore, this paper uses field investigation to understand the demand for e-commerce talent and the current situation of talent education. It conducts a literature review and in-depth interviews to understand the real feelings of the case objects, uses observation to understand the behavioral performance of the case objects, uses a questionnaire to understand the character profile of the case objects, and finally carries out theoretical analysis on the law of talent growth to offer recommendations for future research and development.

1.3.2 Research Design

This paper takes Xu Xiaonan, an excellent e-commerce graduate of the class of 2007 at Jinan University (Shenzhen campus) as a case study, using mainly a literature review and field investigation. First, through reading a large number of documents, the current situation of and problems with e-commerce personnel employment and personnel training in society and universities are collected and summarized, laying the background for subsequent analysis. Second, in-depth interviews and questionnaires are conducted to gain a direct understanding of the case object, her learning trajectory and professional experience. The text of the interview dialogue is carefully analyzed, and the timeline is used to analyze the character’s history. Through the form of questionnaires, we can understand the case object from other people’s perspectives. These findings play an auxiliary role in the subsequent analysis of the character’s history. Finally, through analysis of the characteristics of the talent training program at Jinan University in Shenzhen, the paper sums up the effectiveness of and problems with the implementation of the e-commerce talent training program offered by Jinan University in Shenzhen, and verifies the rationality and universality of the e-commerce talent training concept and program as well as its value to the future development of e-commerce students in Jinan University.

2. Case Study

2.1 Object of Study

Xu Xiaonan, a female from Meizhou in the Guangdong Province. She is an outstanding graduate of the 2007 of e-commerce major (first session) from Jinan University (Shenzhen Campus). Studying hard at school, she achieved excellent academic results and actively participating in activities inside and outside of school. She has won many scholarships of outstanding students and various honorary titles, performing well in various fields. After graduating, Xu Xiaonan worked for many years at Invengo Information Technology Co., Ltd., where her determination, professionalism and expertise have been widely recognised by her superiors and fellow employees. She has since risen to the position of assistant to the general manager.

As a typical of the outstanding graduates of the pilot talent-training programme for e-commerce department of Jinan University Shenzhen Campus, Xu Xiaonan and other outstanding graduates have verified the rationality of this scheme. Exploring the growth process behind it may provide some suggestions and inspiration for reform of our department's follow-up programmes. Its success might also have implications for the design of similar e-commerce training programmes in other Chinese universities.

2.2 Character Narration

2.2.1 University Experience

1) Being attached with e-commerce.

After sitting the college entrance examination in 2003, Xu Xiaonan's attention was drawn to the work of e-commerce innovators like Ali, and she became interested in this rapidly developing new industry. Shenzhen is at the forefront of e-commerce development in Guangdong and, thanks to the Shenzhen municipal government, Jinan University has become the first school in China to run colleges in different places, establishing the e-commerce major in 2000. Its main goal is to cultivate talent with practical applications, develop IT expertise, management and problem-solving skills, and hone students' ability to innovate. The main approach in these training programmes involves integrating the teaching of two different systems of e-commerce and tourism management, focusing on the development of cross-discipline tourism informatisation.

In 2003, Xu Xiaonan seized the opportunity to go to the Shenzhen Tourism College at Jinan University, submitting an application and becoming the first undergraduate to major in e-commerce at the college. At this point, e-commerce was still in its infancy and the college's curriculum had not yet fully developed. However, with the requisite theoretical underpinnings, implementation of the third semester system and excellent teaching, Xu Xiaonan's skills and expertise grew rapidly, laying a solid theoretical and practical foundation for her future development.

2) Fighting in all direction.

When she first entered the university campus, Xu Xiaonan focused on finding opportunities to hone her professional skills. Establishment of the college's third semester system gave her the opportunity to gain experience in real-world contexts by taking part-time jobs from the outset. Although it was a relatively simple task to help organisations process basic data, it enabled her to ascertain the differences between various jobs, and she began to consciously explore her ideal career direction, gaining valuable professional experience for her future employment.

Xu Xiaonan also led a busy extracurricular life due to the rich array of community activities and competitions provided by the university. She joined the Ministry of Public Relations, the drama club and by actively participated in innovation entrepreneurship competitions and received awards. Many such ventures have improved her personal and professional development. Furthermore, although Xu Xiaonan spent considerable time on her internship, she did not neglect her academic studies. Realising the importance of both study and practice enabled her to secure a scholarship for outstanding students in her freshman year, also winning recognition from teachers and students.

3) Facing the obstacles.

In her junior and senior years, Xu Xiaonan went through a period of confusion, like many college students who are about to graduate. Although the e-commerce industry still being relatively undeveloped at this time, graduates from the Shenzhen Tourism College were given a head start by the comprehensive curriculum (including theoretical knowledge of back-end development, front-end design, management and operations) and accepted the consistent third semester system, which laid the foundation for e-commerce graduates to potentially forge a career in any direction. However, Xu Xiaonan still faced employment pressure and was uncertain about which direction to take, until she discovered Invengo Information Technology Co., Ltd. (specialising in Internet of Things technology) at a campus job fair and realised that this would be an ideal platform from which to launch her career. She applied for a position at Invengo and was finally accepted on the basis of her outstanding performance.

2.2.2 Employment Experience

1) Starting a new life.

Shenzhen Invengo Information Technology Co., Ltd. was established in December 1999 and is the world's leading supplier of RFID technology, products and solutions. It was successfully listed on the Shenzhen Stock Exchange in 2007. As a leading Internet of Things enterprise with more than 20 years' industry experience, Invengo has actively invested in research and development, establishing more than 400 patents and proprietary technologies since its inception, including readers, electronic tags, antennas and derivatives. A company with such impressive prospects is certain to attract the attention of many students, and Xu Xiaonan was lucky enough to be hired. When asked about job skills, she smiled and replied with only nine words: "Work hard and stay stable." Xu Xiaonan believes that it was not only her personal style and principles (similar to those of the company) that worked to her advantage, but also her determination and integrity, leading to her first official job and a 10-year commitment to Invengo.

2) Frustrating and forge ahead.

When Xu Xiaonan first entered Invengo, she worked as the assistant director of the office. She needed to undertake some routine administrative work, such as sorting out the company's business licence, checking its fire safety procedures, managing the office environment and sorting out minutes of management meetings. While being responsible for many piecemeal issues, she was also required to perform an important task – that of quickly developing the company's approach to public relations and learning how to deal with the government. Invengo was the first independent innovation enterprise specialising in the Internet of Things, and its rapid development relies on support from the government's relevant welfare policies. Thus, Xu Xiaonan needed to learn how to enhance the company's development with the help of government policies, seeking the necessary funding and resources. But as a new employee, difficulties and blows are inevitable, and when Xu Xiaonan first entered the company, she encountered her first minor setback. The technical director raised some basic problems relating to communication electronics in engineering field to new graduates in the company, but Xu Xiaonan was unable to answer these questions well because of her major, which belongs to management field. Although this did not affect her actual work, she felt frustrated at the time and began to doubt the knowledge she had spent four years acquiring at university.

However, this initial frustration was soon overcome. After discovering this gap in her knowledge, Xu Xiaonan examined the company's technological systems. Through her determined efforts, she became familiar with the company's products and began integrating theoretical knowledge into her work, such as her understanding of products, finance and markets, which are learned from her course in college. She became more proficient in her work and came to realise that knowledge from her studies had actually helped her a great deal initially. Even though she was just a novice in the fields of marketing, finance and technology, her solid theoretical foundations enabled her to quickly understand what others wanted to achieve in work communications because she had been exposed to this kind of knowledge and understanding at the Shenzhen Tourism College. In particular, Xu Xiaonan felt that her university education had taught her a unique and systematic way of thinking, which is used by her in many aspects, for example, when she set goals for a specific task, she would approach this from a systematic point of view, thinking about the bigger picture and constantly re-evaluating the problem, changing her thinking where necessary.

3) Struggling and Growing.

After a year at Invengo, Xu Xiaonan was promoted from an office assistant to the director of public relations. She has always followed a very simple attitude: do things practically. Her quietly confident demeanour was clear in the interview, and her gentle, decisive character is also apparent. From the outset, Xu Xiaonan has tried to steadily build a solid foundation, for example, for those details that are easily overlooked by others, she took a serious attitude to learn and tried to do everything well. Furthermore, Xu Xiaonan's expertise and professionalism have won the approval of colleagues and superiors alike. The latter have come to value her reliability, trusting that they can delegate work without fear.

The first time to reach cooperation with the government by herself is a manifestation of her progress in working ability, though, it was not easy for her at that time. Being responsible for public relations not only required effective external communication with the government, but also creating internal projects that complied with national policies, communicating with various departments of the company and obtaining resources needed for projects. At the same time, when communicating with the government, Xu Xiaonan not only had to ensure that the company's technical projects were completed, but also that effective communication with the accreditation body was maintained so that experts could vet and approve the company's projects.

After successful approval of the company project, Xu Xiaonan immediately commenced implementation, using her excellent integration ability to identify the company's internal resources and guide the project towards its completion. Xu Xiaonan has already played a key role in the company's operations, from the initial, small project to large-scale ventures with more than 100,000 funds at district level, several million at municipal level and tens of millions nationally. This all goes to show Xu Xiaonan's excellent work ability. However, despite her success, she did not stop studying. After five years of work, and with fond memories of the campus, she decided to study for an MBA from Xi'an Jiaotong University, developing her skills and knowledge still further and increasing her chances of yet another promotion.

4) Being independent and looking forward.

Xu Xiaonan has been an assistant to the general manager of Invengo for many years now. Her job mainly involves handling documentation and official relations of the president's office, with the responsibility for some independent commercial affairs of the company. Her extensive knowledge initially gave her the ability to help fill in the short board area of her superiors and put forward constructive suggestions. In her work, Xu Xiaonan often draws upon her knowledge from various fields, integrating knowledge of technology, products, finance and markets in feasibility studies. Without this kind of knowledge base, it would be extremely difficult to accomplish such tasks. Xu Xiaonan also has responsibility for introducing RFID technology to the textiles washing industry, an innovative transformation that brings with it a sense of great social responsibility.

Furthermore, Xu Xiaonan is also committed to collaborating with the university to provide a practical platform for other students. The Well GO convenience store recently opened, Invengo's landmark unmanned retail project. Invengo now plans to launch many other unmanned retail projects, such as unmanned convenience stores and clothing retail outlets, to upgrade and transform the retail industry. Xu Xiaonan is highly optimistic about the momentum of unmanned retail and hopes to deepen students' understanding of e-commerce through practice.

2.3 Analysis of Growth Process

Both application-oriented talents and high-skilled personnel training emphasize the integration of theory and practice, while high-skilled talents must be more skilled, knowledgeable and accomplished than applied talents, but the essence of the two coincides. Since its establishment, the department in Shenzhen Campus has been oriented toward cultivating application-oriented talents, and Xu Xiaonan, the case object and an outstanding graduate of the department, is a typical example of the application-oriented high-skilled talents. Therefore, on the basis of the law of growth of high-skilled talents proposed by Gao Yan and Wen Miao, in combination with the case in this paper, the paper proposes the following growth law for talents.

1) The law of advantages-accumulation based on social practice

Advantage accumulation includes knowledge accumulation, ability accumulation and quality accumulation. The accumulation of advantages of applied talents is obtained through social practice, and the accumulation of

advantages to some extent promotes the growth of talents (Wen Miao, 2016). The implementation of summer practice in the third semester effectively increased Xu Xiaonan's college social practice experience and stimulated her awareness of the need to actively participate in social practice. For Xu Xiaonan, knowledge was acquired through reading books and learning from teachers, then mastered in the third semester's operating experience, gradually internalized into personal knowledge, thus achieving the goal of accumulating advantages in turn. At the same time, the internship provides numerous "trial" opportunities that helped her to verify the theory learned from school, accumulate operating experience, and gain the application ability required of application-oriented high-skilled talents. In addition, her patient and serious work attitude was trained through complicated work procedures during the internship. Through social practice, Xu Xiaonan's personal growth was promoted by the accumulation of the various advantages of knowledge, ability and quality.

2) Age effect rule based on active growth

Age growth enhances the creativity of applied talents: as their experience increases their life goals become clearer, their independence increases, and their interpersonal relationships and resources are improved. At the same time, their professional identity is enhanced, and they actively seek and take advantage of development opportunities to improve themselves. In college, Xu Xiaonan did not have a long-term career plan. It was only by chance that she entered Invengo. When she first entered the workplace, the passion and competitiveness she had developed during her university studies drove her to continuously improve her knowledge system. After her career struggle, she had a more definite goal, and her experience and theoretical knowledge gradually accumulated and were enriched. She had more choices for directions because of her outstanding work ability. After seizing the opportunity to transfer, Xu Xiaonan chose the direction of general management assistant, and later developed a business based on her own ideas, taking full responsibility for Chinese washing business. In addition, even five years after graduation, she is still not satisfied with the current status of knowledge accumulation, and resolutely chose to embark on the road of further study, enroll in an MBA, expand the depth of her management theory knowledge and expand her interpersonal relationships.

3) The law of master-teaching and apprentice-inheriting based on skill acquisition

Inheritance from master to apprentice is the most basic approach to and manifestation of education. Its laws mainly include from the laws of master-teaching to the laws of apprentice-inheriting, four stages in total (skill inheritance of explicit-explicit, implicit-explicit, implicit-implicit and explicit-implicit), and follow the knowledge conversion process proposed by the knowledge spiral theory (Wen Miao, 2016). Teachers have more experience than students, and they can impart their own experience to students through language or personal demonstration. Meanwhile, students' absorption of knowledge is a process of clarifying it with their own feelings, thus forming their own experience and knowledge. What students learn includes not only "open knowledge" that can be conveyed in words, but also "implicit knowledge" of "intellectual skills"; that is, the "implicit knowledge" of skills that cannot be fully conveyed in words. The existence of this characteristic makes experience a necessary prerequisite for mastering implicit knowledge. In the process of teaching, implicit knowledge often requires direct, nonverbal communication between teachers and students; that is, students gradually master teachers' invisible skills through observation, experience, imitation and constant practice to form their own implicit knowledge (Wang Ruohong, 2009). From this point of view, the acquisition of personal implicit knowledge and the improvement of implicit skills of application-oriented high-skilled talents in the e-commerce department of Shenzhen campus of Jinan University are closely related to the teaching and guidance of teachers in the college.

Taking Xu Xiaonan's learning experience as an example, in the process in which teachers in the department teach e-commerce related knowledge, they complete the teaching process of "explicit-explicit" skills transformation by imparting their own systematic skills to students, enabling students to acquire indirect professional knowledge experience. In the course of teaching, teachers express their behavior and practice results in the form of words, language, symbols or formulas through classroom teaching, PPT and on-site simulation: an "implicit-explicit" process. For example, in experimental classes, teachers usually demonstrate it themselves first, the design ideas of code writing or flow chart are taught in this process, allowing students to think independently based on the examples to complete similar test questions, so as to achieve the effect of learning by analogy. In this process, "implicit-implicit" skills are transformed at the same time. The process of "explicit-implicit" skills transformation is a process of internalizing learned knowledge as personal implicit skills through

practical exercises in class or social practice in summer. These four processes continue to circulate, eventually leading to the skills-mastery and continuous growth of application-oriented high-skilled talents. In the whole learning process, teachers' teaching of words and deeds broadened Xu Xiaonan's grasp of professional knowledge, and she successfully internalized knowledge as personal skills in the process of learning about technology, products, finance, markets and other aspects, and formed her own systematic thinking in the process of practice.

3. Effectively Improve Degree of Achievement and Adaptability of Talents Training

3.1 Analysis of Consistency of Training Effect and Training Goal

The growth and success of Xu Xiaonan and many outstanding e-commerce graduates in Shenzhen campus cannot be separated from their own earnest, steadfast and unremitting efforts, nor can they be separated from the good environment, learning atmosphere and rich resources provided by the university, as well as the careful cultivation of their teachers. The e-commerce major at Shenzhen Tourism College of Jinan University aims to train compound talents with an orientation toward practical application, solid information technology ability, comprehensive management knowledge, and the ability to innovate and solve practical problems. Combined with Xu Xiaonan's case, the rationality of the e-commerce talent training program on Shenzhen campus of Jinan University is verified as follows.

1) Professional curriculum

First, reasonable and comprehensive mandatory professional courses such as management, marketing, logistics management, Java and other courses will promote the improvement of students' theoretical knowledge framework and lay a solid theoretical foundation for future work practice. Second, a variety of elective courses including project management and operational research will enable students to study theory freely and selectively and improve the knowledge system in a certain field. In addition, the courses making up this major, unlike other majors, are mostly information technology courses, with a large number of basic skill-based experiments, and comprehensive experiments are arranged for application-oriented major courses in senior grades. These are the important teaching bases for the formation of Xu Xiaonan's thought system, while the establishment of a systematic thought system and methodology is one of the important factors in Xu Xiaonan's success in her career. It is also the most valuable ability of all excellent e-commerce graduates of the school, which has a great impact on their personal career development.

At the same time, Xu Xiaonan said that science courses could help her understand the technical principles of the company's products. For example, when technicians communicate with non-technical personnel, e-commerce personnel can often lower the communication barriers between them and help the two parties to communicate better. All this verified the rationality of the curriculum of the e-commerce major offered on Shenzhen campus of Jinan University, indicating that the goal of the department's major curriculum has been achieved to a significant degree.

2) General education and other courses

The extensive curriculum of general education on Shenzhen campus at Jinan University includes wine tasting, Korean and so on, enabling students to expand their interests and explore their potential while studying on professional courses, gradually improving their quality. Xu Xiaonan also suggested that university students should not just focus on professional textbooks, but dabble in all aspects, tap into their own interests and hobbies which can lead directions for development. A variety of non-professional courses not only enrich college life, but also cultivate students' all-round development in terms of morality, intelligence, physique, beauty and labor. These courses enable students to improve their overall personal quality and provide many excellent e-commerce graduates on Shenzhen campus of Jinan University with eloquence training, image enhancement, etc. In recent years, with the improvement of the talent training program, the general education curriculum has gradually diversified, which indicates that the goal of setting a general education curriculum for the e-commerce major on Shenzhen campus of Jinan University is relatively high.

It is worth mentioning that Xu Xiaonan also advocates that college students read more news, understand state affairs and professional policies, and better choose the direction of further study with guidance. This also verifies

the long-term value and necessity of the “Situation and Policy” course and party building activities in Shenzhen campus of Jinan University, indicating that other course objectives of the e-commerce major have been achieved to a great degree.

3) Setup of the third semester

To effectively improve students’ practical ability, the major has a “third semester” system: every summer vacation, first, second and third grade students are required to take part in summer social practice for 320 hours over 8 weeks, recording 3 of 9 required credits. After several years of continuous exploration, the college has built a number of practice bases for this purpose, which are distributed in tourism, e-commerce and other fields, plus various professional-related enterprises and institutions to which students apply independently, effectively supporting students’ practice needs.

Social practice not only enables college students to apply theoretical knowledge to practical operations, thus gaining a better understanding and absorption of theoretical knowledge, but also enables them to leave the campus early to experience social life. The summer internship gave Xu Xiaonan a certain work experience and career vision during school, offering a foundation for later study. On the one hand, it increased her opportunity for “trial and error”, enabling her to begin to establish career planning awareness and gradually define the ideal employment direction. The rich practical experience also reduced Xu Xiaonan’s discomfort during the transition period after graduation, and laid a good foundation for her subsequent job choice and career development. At the same time, she reckoned that as the general e-commerce teaching program has a wide but shallow scope, college students can lead their studies and gain employment based on their direction of interest, and social practice also offers a way of orienting students who have not yet found their own area interest.

In general, these internship experiences facilitated the formation of Xu Xiaonan’s excellent ability and personality, which led her to be widely recognized by her superiors and subordinates in follow-up work, and subsequently promoted to become a leading executive of listed companies. The experiences also illustrate the rationality and necessity of the third semester system offered on Shenzhen campus at Jinan University.

3.2 Adaptability Between Training Objectives and Social Needs

Undergraduates have enrolled on the e-commerce major on Shenzhen campus of Jinan University since 2002. Based on the needs and training objectives of society, more than 700 undergraduate e-commerce students have been trained after two teaching reforms and four training program revisions, and a number of outstanding graduates have emerged. Overall, the main results are as follows.

1) Students’ social adaptability is enhanced

In October 2015, the Ministry of Education, in conjunction with various departments, issued “*Guiding Opinions on Guiding Some Local Universities to Change into Application-oriented*” to orient conditional universities toward application. Since its establishment, the e-commerce major on Shenzhen campus of Jinan University has always adhered to an application orientation, school-enterprise cooperation and the implementation of the third semester system. Students are enabled to take the initiative to leave the campus and enter society, apply what they have learned in the classroom to practical work, and better understand theoretical knowledge on the basis of practice. In addition, the many summer internships have not only helped students to define their ideal work direction, gain experience based on “trial and error”, and further improve their career planning, but also empowered them to realize their potential and interests. Xu Xiaonan, the outstanding graduate examined in this paper, is the best example.

2) Students’ entrepreneurship and employment opportunities are enhanced

Based on the combination of teaching and practice, theory and technology, the e-commerce major offered by Shenzhen Tourism College of Jinan University has maintained an annual employment rate of more than 98%, with the overall employment rate of graduates reaching 100% in the last three years. Places of employment include banks, civil servants, and e-commerce enterprises, and the employment situation is good. In addition, the quality of employment is steadily rising, and graduates can often take core roles such as important management positions within 3 to 5 years. In addition, to seize the opportunity for industry development, the number of students forming teams to start businesses has also gradually increased. For example, Yan Changren, one of the

founders of Sunfo Capital Management Company, and Deng Shaowei, the founder of Qianhai Patozon Network Technology Company (listed), are graduated in 2007 and 2010 respectively. Over the years, e-commerce professionals on Shenzhen campus of Jinan University have trained talents ranging from top executives to CEOs. Their optimistic employment situation fully demonstrates the strength and excellence of e-commerce graduates of this college and confirms the rationality of the e-commerce talent training program.

4. Case Enlightenment

The requirements placed on talents have become increasingly strict with the demand for talents in the fast-growing e-commerce industry has increased. Shenzhen campus of Jinan University has continuously updated and refined its e-commerce professional training program to bring our e-commerce professionals into line with the times. At the same time, after two teaching reforms, our department has continuously sought ways to improve the form and quality of teaching, and has accumulated some experience, ranking 20th in the 2016 evaluation report on Chinese universities and disciplines issued by the RCCSE, which shows that our department has achieved good results in e-commerce personnel training, reflecting well on the overall work of Shenzhen campus of Jinan University. However, based on the case examined of this paper, there is room for improvement in our department's talent training program. Therefore, the following suggestions are put forward.

1) Course setting

When setting courses, the college should pay equal attention to economic management and trade, information technology and tourism, and update the corresponding courses in line with changes in the e-commerce industry. For example, product and operation courses can be updated by constructing different specialized courses, and more "specialized" trying can be made in "extensive" courses to mobilize students' subjective initiative in learning, improve their ability to use knowledge and cultivate their ability to solve practical problems in enterprises and institutions. In addition,, due to the rapid development and promotion of information technology, the college should attach great importance to the cultivation of students' innovative ability by setting up experimental and communication projects, inviting successful people outside school to enter the classroom, and designing case projects to involve students so that they can gain a comprehensive and in-depth understanding of the whole discipline in operation.

2) Social practice

As a major feature of our college's offering, the "third semester" system also has room for improvement. First, the college could strengthen the school-enterprise cooperation model, diversify its off-campus resources, and ensure that students can benefit from and achieve success in their e-commerce positions of interest by means of external negotiations or offering recommended places. Second, the school could set up professional tutors to provide students with vocational planning training and employment problem solving opportunities, enabling them to define their employment goals and life directions as soon as possible.

3) Scientific research competition

Encouraging scientific research competitions can stimulate students' potential, cultivate their innovative awareness and entrepreneurial ability, and improve their practical employment opportunities by enabling them to apply classroom theoretical knowledge through scientific research competitions. The college should pay full attention to scientific research competition projects, formulate and implement measures conducive to the cultivation of innovative and entrepreneurial talents in their major, widely carry out innovative and entrepreneurial activities, employ industry experts to jointly guide students in their major to carry out innovative and entrepreneurial projects, cultivate students' innovative and entrepreneurial awareness, and form a positive competition atmosphere.

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Developing Gratitude and Filial Piety: The Role of Chores

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Abstract

Whilst decades of research in the global north has identified authoritative parenting as producing the better child outcomes, and there is a growing amount of literature from countries such as China, suggesting the contrary: that authoritarian parenting produces desirable outcomes. However, the links between authoritarian parenting and the development of filial piety in China appear to have been disrupted by the incursion of values from the global north, and the actions of Chinese parents themselves responding to the Chinese one-child policy. This has created a situation in China where there are now major concerns about children's lack of filial piety: an issue which has major implications in a nation that depends on familial care rather than state provided welfare. In this paper, we examine issues around parenting and the development of gratitude and filial piety. We suggest that it is important for children to learn how to behave in ways that demonstrate gratitude and filial piety and that competence in performing appropriate behaviours is the pre-requisite to internalizing the associated values. We suggest that engaging in family chores from an early age is one strategy parents can use that will help their children develop the appropriate behavioural repertoire.

Key Words: Authoritative Parenting, Authoritarian Parenting, Chores, Moral Development, Filial Piety

1. Introduction

The authoritative parenting style, as defined by Baumrind (1966, 1968, 1971, 1978), posits that parents are high in both demandingness (control) and responsiveness (warmth). This parenting style is characterised by setting high and age-appropriate standards for children, encouraging autonomy and but at the same time settling clear limits in a manner that is warm and supports children's ability to negotiate. Building on this, the parenting style model proposes three other parenting styles—authoritarian, indulgent and neglectful (Maccoby & Martin, 1983). Authoritarian parenting has high demandingness but low responsiveness. This is where parents express little, or no warmth and affection set strict rules, and punish disobedient behaviour. Indulgent parents have low demandingness but high responsiveness, nurturing their children with little or no expectations from them and rarely discipline them. Neglectful parenting is low in both demandingness and responsiveness, as its name suggests, where parents are indifferent to or do not demonstrate care for the wellbeing and development of their children. It has been consistently found in empirical studies undertaken in the global north (the global north as identified by Connell, 2007) that authoritative parenting is associated with positive developmental outcomes such as independent, socially well-behaved and academically successful children, and thus this parenting style is regarded as the optimal parenting model (Baumrind, 1966, 1968, 1978; Gray & Steinberg, 1999; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Laurence Steinberg, Lamborn, Dornbusch, & Darling, 1992; L. Steinberg, Mounts, Lamborn, & Dornbusch, 1991).

2. Discipline in authoritative parenting in the global north

The term discipline, when used in an authoritative parenting model, is "characterised by the use of firm control contingently applied and justified by a rational explanation of consistently enforced rules" (Baumrind, 1996, p. 412). Authoritative parenting and discipline are linked with democracy, whereby children are supported to learn the reasoning behind rules, where they are encouraged to participate in determining how they can function appropriately within set limits, and where they are engaged collaboratively with parents and/or other adults in determining appropriate limits (Marion, 2011).

Along with the concept of democratic or authoritative parenting comes the growing opposition to the use of physical punishment (Clément & Chamberland, 2014; Fraser, 2010; Gershoff & Grogan-Kaylor, 2016; Saunders & Goddard, 2010). Research in countries that have banned physical punishment of children demonstrates that this has ultimately resulted in a decrease in societal violence (Bussmann, Erthal, & Schroth, 2009; Österman, Björkqvist, & Wahlbeck, 2014), particularly when associated with appropriate education programmes providing parents with alternative strategies (Holden, Brown, Baldwin, & Croft Caderao, 2014; Robinson, Funk, Beth, & Bush, 2005; Zolotor, 2014).

3. Discipline in Chinese families

In contrast, Chinese cultural values position ideal discipline in a different way than in the global north. Kang and Moore (2011) argue that Chinese culture values children's obedience to parents, and in that context, parents who use more authoritarian (rather than authoritative) discipline strategies are perceived as being more involved with their children and perhaps more caring of their children. Leung, Lau, and Lam (1998) suggest that there are strong cultural expectations that Chinese mothers train their children "so that they will behave well and obtain good school results" (p158) and this seems to result in children's improved academic performance. However, Xu et al. (2005) suggest that Chinese mothers who used a blend of authoritarian and authoritative parenting demonstrated behaviours that were a closer reflection of Chinese values. They note that parental levels of stress impacted on parenting style and that more highly stressed mothers were more likely to use authoritarian parenting styles. Unfortunately, their study did not examine the impact of parenting style on children's outcomes. Traditional Chinese society placed a strong emphasis on filial piety. Yeh, Yi, Tsao, and Wan (2013, p. 278) argued:

A positive relationship with parents fosters RFP, [reciprocal filial piety] which entails gratitude and willingness to repay one's parents' care and sacrifice. From a historical perspective, RFP corresponds with 'the natural inner disposition of filial ethics' emphasized during the pre-Chin era and with the Confucian principle of favoring the intimate (qin qin).

We posit an association between parenting style and the development of filial piety as defined by Yeh et al. (2013) above. We argue that traditional Chinese child rearing practices focusing on authoritarian parenting were linked with the hegemony of filial piety. The existence of high levels of filial piety has created a context where state-based welfare systems were not developed because they were not perceived as necessary.

However, in more recent years countries such as China have come under the influence of the global north (Litke, 2013) and different cultural influences are now impacting on parents. Coupled with these influences from the global north is the Chinese one-child policy which has resulted in Chinese parents investing all their human capital into one child (J. Zhang, 2017). In this context, parenting styles have become more indulgent, and each child has become the exclusive focus of both parents. A strong body of research (e.g. Chen & Yang, 2011; M. Li & Peng, 2011; author1, 2014; author 1, 2015, 2016; Lu, 2009; Ma, 2011; C. Zhang, 2013) suggests that the unintended consequence of this is what is now positioned as an egoistic young generation, who are identified as selfish, un-empathetic, who consistently take other people's help for granted, and who lack gratitude: all characteristics contrary to the cultural expectation of filial piety.

In an attempt to address this situation the Chinese government has implemented special education programmes focusing on key elements of filial piety including gratitude towards one's parents and towards society in general,

and moral reasoning. (Gao, 2015; Qing, 2015). The assumption underpinning this education programme was that learning to think morally would lead children to behave in ways that demonstrated filial piety. Unfortunately, Li's investigation (2016b) with 589 high school students in China found that discipline (parenting style) played a much more important role than moral reasoning in shaping moral behaviour across both genders. At this point in our argument, it is useful to summarise the key points we have made. We have argued that authoritarian parenting in a Chinese context contributes towards the development of filial piety. The development of this in Chinese children makes it possible for the State to rely on familial care rather than state-provided welfare for family members. The extant research identifying authoritative parenting as producing more desirable outcomes in children in the global north is thus not relevant in the Chinese context. However, changes in Chinese society and the Chinese one-child policy have modified the way in which Chinese parents fulfil their role. Whilst their parenting may maintain elements of authoritarianism, it is also more indulgent (author1, 2015, 2016) and this is linked with growing concerns that modern Chinese youth do not develop the levels of filial piety expected of them. The Chinese government has attempted to address this through moral education of young people, but there is evidence that this approach has not had the positive impact desired. In the next section of this paper, we propose an alternative approach.

4. An alternative

Whilst self-interest is one of the fundamental motives of human behaviour, we acknowledge doing the right thing is often very difficult and thus moral behaviour is not necessarily easy to teach (Curzer, 2002; Kohlberg, 1964, 1976; Piaget, 1965). In the global north, teaching children empathy begins at birth. It is argued that children learn to respect the feelings of others when they, themselves, have received respect for their own feelings (Marion, 2011; author2 et al., 2011). Parental strategies involve acknowledging and naming children's feelings, modelling in their own behaviour how these feelings are taken into account and providing children with scaffolding they can use to work through recognition to action in response to the feelings of others. These strategies are associated with authoritative parenting as they are delivered warmly and respectfully with clear messages about limits. The assumption in these strategies is that a clear understanding of feelings and a script that provides ideas for action are both necessary ingredients for the development of empathy.

In the Chinese context, we posit, empathy is positioned as filial piety where children are expected to feel gratitude to their parents and reflect that gratitude in their behaviour, specifically in caring for their parents in their old age. We are not suggesting that, in order to achieve these outcomes, Chinese parents need to learn authoritative parenting strategies. Such a suggestion would not recognize the complexities of Chinese culture and all the intersecting factors that contribute to the Chinese world view and experience. Rather, we are suggesting that the two elements of filial piety (feelings of gratitude, and actions that demonstrate that gratitude) can be developed through a two-pronged approach: namely beginning with actions and moving from actions to the abstract ideas of feelings (including the abstract concept of social justice). We will explain this idea in the following paragraphs.

Firstly we suggest that doing family chores is a key action that will trigger opportunities to learn feelings of gratitude and understandings of social justice. Doing family chores is a way for children to share family burdens and contribute toward family goals. When children do family chores, they are working for the well-being of other family members, not just themselves. Chores can be hard work, boring and repetitive. However, in doing these tasks children are sharing the family burden and can be given feedback indicating how important their contribution is for the welfare of the family. In doing chores, children experience what it is like to put aside their own immediate wants in order to perform in ways that support others. These learning opportunities create a context where children begin to understand how their actions impact on others.

We argue that chores reflect the principle of social justice, a key element of which upholds that social harmony is achieved through balancing different rights, obligations, and benefits—the golden rule of reciprocity (Sensoy & DiAngelo, 2017). Knowledge of social justice helps children be aware that their rights are earned through fulfilling their obligations, and that there are no rights in the world without obligations attached to them. Demanding children engage in routine chores can help children subjugate their hedonistic inclinations and

transform the principle of social justice into their behaviour in their daily life. This follows the pattern identified in Hoffman's internalisation theory (1960, 1975) and self-determination theory (Deci & Ryan, 1985), where moral traits are developed through the internalization process or habitualisation before becoming self-motivated. In other words, we learn to desire to behave morally by learning first HOW to behave morally. We argue in the same way that chores offer an opportunity to learn behaviours that foreground the habitualisation of social justice, which in the Chinese context, leads to gratitude and filial piety. In making this argument, we are not alone. For example, Aristotle holds that "teaching is futile before good habits are already in place" (Curzer, 2002, p. 145). Ochs and Kremer-Sadlik said "Morality is embedded in and is an outcome of everyday family practices" (2007, p. 5), and Peters also pointed out "the palace of the reason is entered through the courtyard of habit" (1966, p. 314). One's character is essentially the sum of his habits, and chores provide an ideal vehicle for such habitualisation of social justice in children by "sobering children into the social fact that are growing up means that obligation precedes pleasure" (Ochs & Kremer-Sadlik, 2007, p. 9). Childhood is a vital phase for the development of a habitus of justice (Aristotle, trans. 1976, p. 32).

The importance of shaping children's development whilst they are young is reinforced by the neurobiological research which emphasises the primacy of early childhood experiences in shaping adult behaviour (Donoghue & Horvath, 2016; Heckman, 2011; Nelson, Kendall, & Shields, 2014; Vandenberg et al., 2017). This research is used to justify the human capital investment motif that now underpins much of early childhood service delivery (Penn, 2017; Urban, 2015) and this idea can be applied to children's moral development. Engaging in routine chores throughout childhood provides a vehicle for parents to help children internalise understandings around social justice and habituate them into behaving in ways that demonstrate, in the Chinese context, gratitude and filial piety.

5. Advantages of chores over other disciplinary measures

For Chinese parents, our suggestion of using chores as a tool to support the development of gratitude and filial piety may be particularly useful in contexts of familial disadvantage. Studies (Fan 2001; Fantuzzo, Tighe, and Childs 2000) have demonstrated that parents with lower income and less education may sustain financial and social constraints that hinder their ability to engage actively in children's life, and we argue in these contexts chores can be a valuable means by which parents can work co-operatively with their children to support family wellbeing whilst, at the same time, working to develop positive emotions in children and enhance their academic performance.

Clearly, chores need to be developmentally and contextually appropriate so that they support children's development and do not overburden children nor put their wellbeing at risk. Children may need support in order to learn effective ways of carrying out their chores, and support to organize their time so that chores are performed in a timely manner. This support requires parental time and attention in the initial stages, but as children develop the necessary skills that support can be gradually withdrawn.

6. Conclusions

We argue in this article that the "Me Generation" or "Entitled Generation" in the global north and China (lack of empathy, unbounded narcissism) (author1, 2014; Rifkin, 2005; Salt, 2016; Stein, 2013; Twenge, 2006) observed to have developed since the 1980s is a major concern to society. We suggest that this sense of entitlement (rights without obligations) has partly arisen because children have not been offered opportunities to enact gratitude and filial piety (and ultimately social justice) in their early years. Because they do not know HOW to demonstrate gratitude and filial piety in their behaviour, they have not internalised these as values. We suggest that education campaigns aiming to teach moral values such as gratitude are likely to fail because learning how to behave must precede learning why one needs to behave in that manner and that the most effective strategy that can teach young children how to behave in a moral manner is the performance of family chores (e.g., Breheny, 2015; author1, 2016a; Rende, 2015; Weissbourd, 2009). We suggest that performing family chores offers another way of perceiving parental roles and responsibilities that can operate irrespective of parenting styles (and thus cultural context).

Children are like jewels that need to be fashioned with the hammer, chisel and buffing cloth of a supportive and positive discipline. Yet given the current trend of parental practices that focus on the happiness and success of children to the exclusion of appropriate limits, with some parents even frequently using “bribes” in the form of payment or points that could be “cashed in” for toys, games or outings in order to ask their child to do chores (Hill, 2009), it appears necessary to re-emphasise the importance of chores in the life of modern-day children.

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Effect of Readers Theatre Technique on achievement in Reading Skills of Secondary School Learners in Kisumu County Kenya

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Abstract

Readers theatre technique is an interactive learning experience which promotes fluency and comprehension amongst learners. In the same vein, effective reading skills equip learners with requisite competence for a successful academic life. The study explored the effect of Readers theatre technique on learner achievement in reading skills. Lev Vygotsky socio-constructivist theory which advocates for social interaction, scaffold and active learning anchored the study. Quasi experimental; pre test, post test control groups design was adopted in which eight sub county day public secondary schools in the peri-urban region of Kisumu County were purposively selected. Respondents were 426 learners of form three of which 205 were randomly assigned to experimental while 221 to control study groups and 19 teachers were purposively selected. Primary data was collected within eight weeks through reading skills assessment tests, questionnaires, teacher interviews and focus group discussions for learners. The results revealed that the experimental group participants realized higher scores reading skills than the control group with the weaker learners registering greater gains. Based on the findings, the study concluded that Readers theatre technique improved learner reading fluency and comprehension resulting to effective reading skills. Further research was suggested in other skills of English language.

Key Words: Comprehension, Fluency, Reading Difficulty, Readers Theatre Technique, Reading Skills

INTRODUCTION

Effective reading skills are necessary for understanding written material across the education curriculum, because most learning at school depends largely on reading. According to Judge, (2013) successful reading is exemplified when learners are competent in decoding words, reading comprehension and reading fluency. However, learners experience difficulty recognizing words which inhibits reading comprehension. As learners transit to institutions of higher learning, immense reading is inevitable because they have to search for information. As a result, stakeholders recognize the indispensability of reading in academics for members to fully function in society. Therefore proficiency in reading is necessary for curriculum processing (Kibui, 2017) for learners to attain academic success.

Reading skills can be realized through interactive reading strategies that employ both top -down and bottom -up reading processes for interpreting and inferring information at the same time recognize and decode words. Klinger, Urbach, Golos, Brownell and Menon (2010) reported that learners with reading difficulties were inclined to receive instruction that focused on skills associated with phonological awareness and decoding but

paid no attention to strategies that could enhance comprehension. However, struggling readers require more explicit instruction that activate background knowledge for obtaining both literal level information and inferential level information. Engaging learners with these reading strategies presents opportunities of responding to texts allowing identification of contextual cues and setting a purpose for reading resulting to effective reading.

According to Pettersen, (2013) Readers theatre technique is a staged reading activity where readers use interpretive voice to bring life to story elements. Two or more readers are required to perform an oral presentation of a script by articulating words correctly to portray meaning of the text through the characters' they present. First, learners read the story then change the story into a script involving several characters. The script is then rehearsed and performed to peers who are the intended audience. According to Black and Stave (2007), Readers theatre technique allows learners of different reading levels participate in friendly, controlled and prepared atmosphere which encompasses scaffold and modelling to enhance reading skills. On the other hand, Rahaman (2014) points out that Readers theatre technique establishes a purposeful reason for collaboration by incorporating cooperative learning and learner-centered teaching. Furthermore, Demircioglu, (2010) asserts that strategies that involve kinesthetic motivate and encourage practising of reading skills thereby contributing positively to learners who struggle to make meaning and connections with texts.

However, Chapman, Laird, Ifill and Kewal-Ramani, (2011) observed a high probability of drop outs of English language learners who read below the level of proficiency. The National Assessment of Educational Progress (NAEP, 2015) revealed 38% of grade four learners in the United States could not read materials at the elementary level. The position in United States is not different with literacy levels across Sub Saharan Africa as a report by UNESCO (2011) revealed low achievement in reading skills. Athimoolam and Kibui (2012) observed that many secondary school learners still struggle with reading in English despite prior exposure to English in primary school. Further, Ndiritu, Rugendo, Chandi, Keiyoro and Mbwesa (2013) observed learners in Kenya tertiary level manifest ineffective reading skills which resulted in poor academic performance. This observation was substantiated by Mwoma (2017) who reported that learners who did not acquire requisite reading skills in early grades of learning often struggled to acquire more advanced skills that are usually absorbed through reading. Consequently, learners should acquire requisite reading skills early in life or if not be remediated in order to be successful in academic life.

Falling below basic reading level not only affects learners' academic performance, but also limits success beyond classroom. Learners who cannot decode words experience reading an intimidating exercise as much time is spend on recognizing words. Consequently, such learners are unable to construct meaning from text yet this is the ultimate goal of reading. Reading difficulties that start at the beginning of instruction persist across grades as learners transit to subsequent tiers of education without having acquired requisite reading skills for effective learning. Hausheer, Hansen and Dumas (2011) argue that learners with weak reading skills should receive interventions to impact on successful academic life. The present study borrowed from the views of Huddle (2014) which propose that influential reading intercessions would increase reading achievement for adolescents struggling with reading. The purpose of the study was therefore to establish achievement in reading skills of secondary school learners who participated in Readers theatre technique and those who did not. The study tested the H_0 : There is no statistically significant difference in achievement in reading skills of secondary school learners who participate in Readers theatre technique and those who do not.

METHODS

The study adopted a quasi-experimental pre-test post-test control group design which manipulated Readers theatre technique to determine its influence on achievement in reading skills (Orodho, Nzabalirwa, Odundo, Waweru & Ndayambaje, 2016). The target population was form three learners and teachers of English in secondary schools because learners were preparing to sit for National examination in form four and needed to be competent in reading skills. On the other hand, teachers were considered to be knowledgeable in the subject area. Purposive sampling was used to arrive at eight public sub county secondary schools situated in the peri-urban

area in Kisumu County to ensure homogeneity. Four schools were assigned randomly to experimental and other four to control study groups. The experimental groups used a 40- minute designed lesson plan, four lessons in a week for a period of eight weeks and participants worked in groups assigned by their teachers. The teachers in the experimental groups guided on reading strategies and modelled reading; aspects controlled in the control study groups.

The study triangulated collection of data as a way to strengthen validity and reliability (Mugenda, 2009). The research instruments were designed, developed and piloted and verified for reliability before actual data collection. The instruments included: Reading skills achievement tests (RSAT) for learners (pre test and post test), two sets of questionnaire: one for teachers and the other for learners, semi structured interview for teachers, focus group discussions (FGD) for learners. The RSAT had three sections: Section A had items on comprehension skills which were literal, interpretive and inferential. Areas tested were on identifying main ideas, and understanding of content and intention of the writer. Section B had items on linguistic ability of learners. Five items were on multiple choice vocabularies, five on multiple choices on rephrasing sentences to assess knowledge of language structure and another item on cloze test to assess understanding of language structures and word recognition. Section C had items on prosodic use of language. Five items were on multiple choices on correct punctuation at phrasal unit, five items on stressing at word level and five on identifying appropriate intonation at sentence level. The score for each section was 20 giving a total of 60 marks.

Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 23. The RSAT generated quantitative data which produced descriptive statistics presented in frequency and percentages, mean score and standard deviation. Thematic interpretations from the interviews, FGD and open -ended questions in the questionnaires was discussed in the emerging areas guided by the study objectives and verbatim extracts from participants were used to support specific arguments. Inferential statistics by use of independent t-test was used to test the study hypothesis at α at 0.05 significant level. Research ethics was considered by first seeking permission to conduct research from the National commission of science, technology and innovation and informing the county director of education (Kisumu County) about the study. Before commencement of the study participants were informed of the purpose of the study and assured of anonymity, willingness to participate and confidentiality of data collected.

RESULTS

Findings and Discussions

Readers Theatre Technique and Achievement in Reading Skills.

The study sought to establish if learners who participated in Readers theatre technique performed better than those who did not. Data from scores of the pre-test and post- test in RSAT was used for analysis.

Pre-test achievement in Reading Skills

Data from scores of the pre-test was used to evaluate learners' pre-treatment achievement in reading skills and establish any variances between the two study groups before commencing treatment. The descriptive statistics of the findings in terms of total number of participants (n), minimum (max) and maximum (min) score, mean and standard deviation are presented in Table 1.

Table 1 Pre-test achievement in reading skills

	Pre-test	
	Experimental	Pre-test Control
n	205	221
Min score	18	15
Max score	68	67
Mean	38.61	37.87
Std deviation	10.625	10.141

Table 1 indicates that the experimental groups had a mean score of 38.61(n=205), standard deviation 10.625, while the control groups had a mean score of 37.87(n=221), standard deviation 10.141. While the experimental groups registered a maximum percentage score of 68 and a minimum of 18, the control groups realized a maximum percentage score of 67 and a minimum of 15. The findings revealed that although the experimental study groups realized a higher mean score than the control study groups, there was a marginal mean score difference of 0.741. However, there was need to establish if the variance was significant by conducting a t-test.

T-Test Results for Pre- Test achievement in Reading Skills

An independent t-test conducted to establish variance in pre-test performance obtained a p-value of 0.462 revealing that there was no statistically significant variances between the experimental and control study groups' pre -test mean achievement in reading skills. The results indicated the two study groups had almost the same characteristics and were considered suitable for the study. Table 2 illustrates the independent T- test results.

Table 2 T-Test Results for Pre-Test achievement in reading skills

		t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference
	Equal variances assumed	0.737	424	0.462	0.741	1.006

Further analysis from teachers' questionnaires revealed that 82.2% (n=16) rated that they were dissatisfied while 15.8 % (n=3) rated as satisfied. The findings portray that teachers were not satisfied with learners' performance in reading skills. On the other hand, learners indicated their regular average scores in reading skills as follows: 71 (16.7%) rated at an average score of 50-74 percent, 327(76.7 %) rated at 25-49 percent and 28 (6.6 %) rated an average score of 0-24 percent. Table 3 illustrates participants' rating on average ability in reading skills.

Table 3 Experimental groups rating on Reading Ability

		Rating on Reading Skills %			
		0-24	25-49	50-74	Total
Gender	Male	9	158	30	197
	Female	19	169	41	229
Total		28	327	71	426

Based on the findings, the study observed that majority of the participants performed below the expected average score of 40%. An indication that learners had minimal ability in reading skills and there was need for an intervention to improve in reading skills. Similar views were held by Allor and Chard (2011) who advocated for an intervention when realizing reading difficulty may affect other areas of learning if not remediated in time. In an effort to examine the reason behind the below average performance in the pre-test, teachers attributed the minimal scores on poor reading culture of learners, while learners reported that the passage had difficult words which affected the general understanding of the passage. More findings revealed that learners were not equipped with appropriate strategies to activate relevant schema to relate with the text at each phase of reading for effective comprehension. One participant expressed views of other teachers.

TE5: *'My students do not have a reading culture which makes it difficult for them to concentrate when reading passages. It beats logic if they cannot get the answers which are clearly right in the same passage.'*

The results conform to the Kenya National Examination Council (2016) report which revealed that candidates did not perform well due to poor mastery of content and low linguistic ability. Basing on pre tests scores, it was prudent to conclude that an intervention was necessary to enhance ability in reading skills.

Post –test achievement in Reading Skills

The study sought to establish post- test achievement in reading skills to establish if the treatment was effective. The descriptive statistics of the post- test for the two study groups is displayed in Table 4.

Table 4 Post- test achievement in reading skills

	Post-test	
	Experimental	Post-test Control
n	205	221
Min score	32	20
Max score	70	66
Mean	46.08	43.33
Std deviation	7.226	7.833

Table 4 show that the experimental study groups had a mean of 46.08 (n=205) and standard deviation 7.226 with a minimum mark of 32% and a maximum of 70%. On the other hand, the control study groups had a mean of 43.33 with standard deviation 7.833, minimum mark 20% and maximum 66%. The analysis indicated that the experimental study groups performed better than the alternative groups revealing that the treatment was effective and should be adopted to enhance achievement in reading skills. Similar results were observed by Kariuki and Rhymer (2012) where learners in the experimental study group performed better in comprehension in comparison to the control study group. However, Kariuki and Rhymer engaged learners in 6th grade. The findings confirm that Readers theatre technique is suitable for instruction of reading skills by learners at varying levels of learning(Lewis& Feng, 2014).

Experimental groups' achievement in reading skills

The study further sought to establish effect of the treatment by comparing pre-test scores and post-test scores in the experimental study groups. The findings are illustrated in Table 5.

Table 5 Experimental groups' achievement in reading skills

	Pre-test	Post-test
	Experimental	Experimental
n	205	205
Min score	18%	32%
Max score	68%	70%
Mean	38.61	46.08

The results in Table 5 show that participants the experimental groups improved from 38.61 in the pre-test and 46.08 in the post-test confirming that the treatment was effective in enhancing reading skills of learners. Similarly, Nopa and Leni (2017) observed improvement in reading skills of 4th semester students at University who realized higher scores in the post test after Readers theatre technique treatment. The results also portray that the minimum mark improved from 18% to 32%, while the maximum mark improved slightly from 68% to 70%. The findings indicate the treatment had a greater impact on low achievers than high achievers thus should be considered suitable for learners struggling with reading to enhance reading skills. The findings are in tandem with Jeon and Lee (2013) who observed low level learners had a more significant progress in comprehension and fluency after using Readers theatre technique. However, Jeon and Lee used interviews and written reports from the 25 learners in grade six and teaching journals to collect data and did not have a control group. Based on the findings, it is practical to construe that Readers theatre technique is more significant on low achievers who are struggling with reading.

On the other hand, both teachers and learners attributed the improved performance to collaborative learning where both teachers and learners scaffold, the reading process. One participant stated on how working in groups offered support to arrive at comprehension.

SE27: *'When we read together in groups, some members of the group explain to me areas that I do not understand.'*

The participants' sentiments were confirmed with findings from field notes in the experimental study groups where learners worked in groups in class at the 'during reading' and 'after reading' phases. However, this was not observed in the control study groups. Working in groups make learners remain active participants through discussions and sharing ideas from their own interpretation of texts in order to arrive at the intended meaning. From this finding, it can be deduced that Readers theatre technique supports collaborative learning and should be embraced to enhance achievement in reading skills.

In addition, teachers revealed that, Readers theatre technique was viewed to be engaging; making learners active participants in the reading class. Active learning ensures retention of information by the learners because they are involved in the activity going on. The view of the following teacher reflects many others.

TE9: *'The fact that the students have to write a script makes them to read the text in order to get the required information. At the beginning it seemed taxing but with time, they learnt how to extract the main points.'*

The implication is that participants were able to interact deep with texts in order to identify important and relevant information to be included in the scripts. The findings are similar to Haughey (2015) who observed a significant difference in the growth of engagement of learners who participated in Readers theatre technique.

Control groups' achievement in reading skills

The study further sought to establish the control groups' achievement in reading skills by comparing the pre-test and post-test scores. The results are displayed in Table 6.

Table 6 Control groups' achievement in reading skills

	Pre-test Control	Post-test Control
n	221	221
Min score	15	20
Max score	67	66
Mean	37.87	43.33

Table 6 show that the control study groups improved from a mean of 37.87 at pre-test to 43.33 in post-test. The results portray the minimum mark improved from 15% to 20%, while the maximum mark dropped slightly from 67% to 66%. The improvement in mean may have been due to the fact that the teachers in participating schools aimed at improving learner' performance for own satisfaction and development after the introduction of the Teacher Performance Appraisal and Development Tool (TPAD) by their employer.

However, a teacher strongly argued that learners only took learning seriously while at school, but relaxed during school holidays as observed in performance of examinations administered at the beginning of the term. One teacher reported:

TC8: *'I have always observed that the students perform better in Exam 2 compared to Exam 1 which we administer a week after they open.'*

This indicated that the presence of a learning environment provided learners with opportunity to concentrate on learning because it creates a social setting where learners develop their cognition by sharing knowledge and experiences.

T-Test Results for Post- Test achievement in Reading Skills

A t-test was computed in an effort to test the hypothesis: H_01 : There is no statistically significant difference in mean score achievement in reading skills of secondary school learners who participate in Readers theatre technique and those who did not participate. The results are shown in Table 7.

Table 7 T-Test Results for Post test Scores in Reading Skills

		t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference
	Equal variances assumed					
Post- test		3.738	424	0.000	2.743	0.732

Table 7 revealed a p value of ($p < .000$) which indicated a statistically significant difference between the experimental and the control study groups. The results disclose that Readers theatre technique significantly improved reading skills of learners and can be used to enhance performance in learners struggling with reading. However, in a departure from this finding, Smith (2011) found no significant differences between the treatment and alternative groups. Therefore, interventions should be executed with commitment for considerable improvement to be realized.

Relationship between Readers theatre technique and Reading Skills

In an effort to establish the relationship between Readers theatre technique and reading skills, a multiple regression was run to predict reading skills through comprehension skills, vocabulary and prosody. The findings in the multiple regression model in Table 8a and Table 8b show the three variables statistically significantly predicted achievement in reading skills, $F(3,201) = 1110.062$ $p < 0.05$, R square = 0.943.

Table 8a Computed Model of Reading Skills

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.971	0.943	0.942	1.040

The R-square statistic that measures the strength of the input variable in influencing the output in Table 9a show that the model with input appropriateness score explained 94.3% of the reading skills scores.

Table 8b F Statistics for Reading Skills

Model		Sums of Squares	df	Mean square	F	Sig.
	Regression	3603.876	3	1201.292	1110.062	.0000
	Residual	217.519	201	1.082		
	Total	3821.395	204			

The study established a statistically significant relationship between Readers theatre technique and achievement in reading skills since $p < 0.05$. The regression model computed from the analysis in Table 8c was found a good fit because it statistically significantly predicted achievement scores in reading skills. The model equation was computed as $y = 1.458 + (0.966x \text{ prosody}) + (0.899x \text{ vocabulary}) + (0.959x \text{ comprehension skills})$.

Table 8c Regression analysis of Readers Theatre technique

Model	Multiple Regression Weights					Correlation with Reading Skills
	B	Std Error	Beta	t	Sig.	
Constant	1.458	0.460		3.171	0.002	
Prosody	0.966	0.030	0.565	32.512	0.000	0.728
Vocabulary	0.899	0.035	0.443	25.907	0.000	0.573
Comprehension	0.959	0.036	0.461	26.884	0.000	0.603

The findings in Table 8c revealed that all the three variables had a statistically significant positive regression weights which implied that if learners had higher scores in prosody, vocabulary and comprehension skills then they were expected to have higher scores in reading skills. The regression analysis in Table 9c revealed that prosody, explained 96.6%; comprehension explained 95.9% and vocabulary explained 89.9% of the variances in reading skills. The findings support results by Paige et al. (2014), who established a great correlation between prosody among other variables. Therefore for learners to perform better in reading skills they are expected to be competent in prosody, vocabulary and comprehension skills and teachers should endeavour to model effective reading, scaffold on reading strategies and building vocabulary for effective competence in reading skills.

Conclusions

Teaching methods that utilize interactive reading employ both bottom up and top down processing that execute word recognition skills at the same time comprehension skills. On the other hand, developing word recognition and decoding skills builds fluency which is critical to effective reading comprehension. Furthermore, a conducive classroom for reading where learners collaborate in groups and receive scaffolding from teachers is beneficial in enhancing effective reading skills. The study established a statistically significant difference between learners who were exposed to Readers theatre technique and those who were not($p=0.000$). In addition, a statistically significant relationship was established between Readers theatre technique and achievement in reading skills because it explained 94.2% of variances in reading skills in the areas of comprehension skills, vocabulary and prosody. Based on the findings, the study concluded that Readers theatre technique is effective in improving learner achievement in reading skills and should be employed to assist learners who struggle with reading.

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Apparel Tailoring Skill Improvement through Cooperative Learning and Action Research Methods

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Abstract

Currently, an integrated train station is under construction in Manggarai, thus resulting several teenagers had to drop out of school due to land acquisition. This community service activity provides skill training and socialization for the drop-out teenager in the age of 16 – 21 years old in South Manggarai to make apparels. This service, as a part of Tri Dharma activity from Universitas Negeri Jakarta, is the right activity to provide them with some skills and expertise. The strategy to socialize and equip them with skills was cooperative learning, in group work and assignment on how to make simple shirts in Shibori tie-dye pattern. The learning process was conducted with action research of John Elliot's model by going through 3 (three) learning stages on 20 participants. On the first stage implementation result, a number of 4 participants from Shibori tie-dye competent group got 88 or excellent, a number of 3 participants from making apparel pattern group got 8a or satisfactory, a number of 4 participants from basic tailoring group got 85 or good. On the second stage implementation, there were only 2 participants who received a good assessment for tailoring simple woman apparel. Then, on the third stage, a number of 2 participants from tailoring woman apparel group got 85 or good.

Key Words: Action Research, Cooperative Learning, Apparel Tailoring

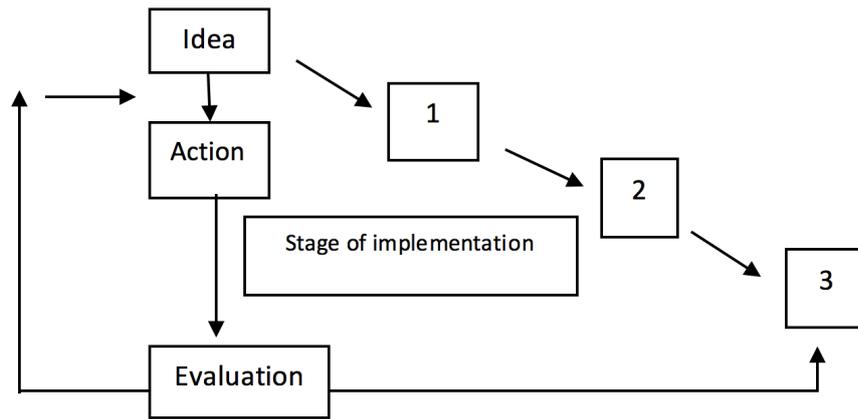
Introduction

The construction of an integrated train station in DKI Jakarta forced the citizen who lived in Manggarai moved to an adequate living area. The massive number of temporary house surrounding Manggarai river is not endearing to see as the residents are mostly unemployed, do not have proper education, and are far from sufficient financial income to live in DKI Jakarta. Therefore, TriDharma of Universitas Negeri Jakarta, along with Research Institutions for Community Service, provides socialization and skills training to tailor apparel with Shibori tie-dye techniques.

The number of drop-out students in Manggarai area is the population of making apparel skill training with Shibori tie-dye prints. This activity will bring many benefits for them in their new living place. Apparel tailoring skill and making Shibori tie-dye prints can be implemented as an entrepreneurial asset or competence for working in boutique, convection or garment manufacture.

Methods

The method applied in this community service was qualitative descriptive with action research method of John Elliot model which implementing 3 stages. The flow of this method is as follows:



Action Research Chart of John Elliot Model

Discussion

Below are the photos of the community service activities.



Image of socialization session



Image of tie-dye shibori group



Image of a group making apparel patterns



Image of a group tailoring apparel



Image of the end-product

STAGE 1

20 participants, tie-dye shibori, making apparel pattern, tailoring apparel

Evaluation

STAGE 2

3 participants are competent in patterning
 4 participants are competent in tailoring,
 4 participants are competent in tie-dyeing

Evaluation

STAGE 3

2 participants are competent in apparel tailoring

The chart of action research activity

The result of apparel production attempt with R&D John Elliot method, with cooperative learning which was conducted through 3 stages, showed that the participants' competence suits to their talent and interest, On the first stage, all 20 participants were given the same instructions which were to do tie-dye, make pattern and give simple tailor training. On the evaluation of stage, their competence score was obtained. The score showed that 4 participants were competent in tie-dye, 3 participants were competent in the pattern, and 4 participants were

competent in the tailor of simple apparel model. The evaluation of stage 2 was carried out to give more complex tailoring skills. The evaluation result of stage 3 suggested that only 2 participants were competent in tailor with a good score.

Cooperative means to work collectively to achieve shared goals. In cooperative learning activity, students were demanded to individually aim for results which benefit every member of the group.

Below is the table of Students' Competence Score.

No	Name of Participant	Stage 1			Stage 2	Stage 3
		Tie Dye	Pattern	Tailor	Tailor	Tailor
1	Titi Ismanto	70	70	70	-	-
2	Anita	88	70	70	-	-
3	Conny	70	70	70	-	-
4	Erlina	70	70	70	-	-
5	Hanafi	70	82	85	85	competent
6	Farida	88	70	70	-	-
7	Siti Aodah	70	70	80	70	-
8	Nur Zairon	88	70	70	-	-
9	Yenny	70	70	70	-	-
10	Cholida	70	70	80	70	-
11	Eta Kelabora	70	70	70	-	-
12	Herwis	70	70	70	-	-
13	Ellen Tobing	85	70	70	-	-
14	Handini	70	70	70	-	-
15	Titin Indrawati	70	80	70	-	-
16	Ade yacob	70	83	85	85	competent
17	Teti S	70	70	70	-	-
18	Giman	70	70	70	-	-
19	Fatima	70	70	70	-	-
20	Fatida	70	70	70	-	-

Table. Steps of *Cooperative Learning*

Steps	Indicators	Teacher's Roles
Step 1	Share learning objectives and motivate participants	Facilitator shared the learning objectives, informed the target competences, and motivated the participants
Step 2	Present the lessons	Facilitator gave lessons to the participants
Step 3	Make the participants into groups	Facilitator instructed the participants to work in a group
Step 4	Assist the group work	Facilitators gave motivation and assistance to the participants who already worked in a big-sized group
Step 5	Evaluate	Facilitator evaluated the learning results of the lessons participants had participated in.
Step 6	Give rewards.	Facilitator rewarded the participants for their achievement in individual and group work.

A learning program is said to employ cooperative approach if, during the learning activity, students participate and work in a small group. What distinguishes cooperative learning from a mere group learning is that during the cooperative learning process, teachers act more like facilitators who assist students in acquiring a better understanding.

This corresponds with Johnson's cooperative learning theory saying that "Cooperative Learning is the incorporation of small group work into learning activity that allows students to work cooperatively to amplify their learning and another member's in the group." Also, as Slavian suggested, "Cooperative Learning is a learning model in which students study and work collaboratively in small groups of 4 to 6 person, with heterogeneous group composition. Learning cooperatively may help students in defining motivation and organization structure to establish a partnership. Based on cooperative learning theories and action research implementation, this community service program can be said successful.

Conclusion

The strategy of this community service program in providing socialization and skill training to tailor apparel which employed cooperative learning with John Elliot action research model method that conducted the 3 (three) learning stages on the 20 participants showed some results. On stage 1, 4 participants from the competent tie dye shibori group obtained 88 or excellent, 3 participants from making apparel pattern group obtained 8a or satisfactory, and 4 participants from basic tailoring group got or good. A number of 4 participants from basic tailoring group got 85 or good. On the second stage implementation, there were only 2 participants who received a good assessment for tailoring simple woman apparel. Then, on the third stage, a number of 2 participants from tailoring woman apparel group got 85 or good.

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Evaluation of Physical Education Teacher Candidate Views Towards Inclusive Education Approach

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Abstract

The aim of this study is to evaluate the views of physical education teacher candidates regarding inclusive education. 119 students participated from Anadolu University and Sakarya University in this work in which a descriptive survey model is used. Inclusive Education Survey was used to obtain the data. Results show that there is no statistically significant difference between mean values of the views' sub-dimensions in accordance with "university," "age," "marital status," "person with disabilities in the family," "special education" and "inclusive education" parameters. However, a statistically significant difference between "recognition and application ability of the principles of inclusive education" in relation to the "gender" parameter is observed. There is also a statistically significant difference between "recognition and adequacy in the usability of the methods and techniques used in inclusive education" with respect to "participation in lectures, courses, seminars, etc. related to inclusive education" parameter. In conclusion, although inclusive education is accepted both in legal, practical levels in Turkey, it is obvious that there are no lectures regarding inclusive education when existing physical education and sports teaching undergraduate programs are investigated. Application dimension must also be included along with the theoretical knowledge so that inclusive education meets its objective.

Keywords: Student with Special Requirement, Inclusive Education, Physical Education Teacher Candidate

1. Introduction

Individuals with special needs must benefit from equality of opportunity in education in order to be able to sustain their lives as a part of their surrounding social environment. The practice of "separate education" within the developed framework based on the individuals' disability is conducted as "joint education" in which class teachers and special education experts participate within a class environment consisting of normal individuals and individuals with special needs. The practice of "joint education" which is based on inclusion practices regarding the student with the special requirement to be educated within a normal class has been used frequently in recent years (Altıntaş and Şengül, 2014; Batu et al., 2004; Karadeniz, 2017). Inclusion practices must ensure that individuals with special needs to participate in mutual interaction with other individuals at any levels and types and provide them with the highest level of educational purposes. Individuals with special needs within the scope of this practice may resume their education through inclusion together with their peers with no special needs full time in the same class or in part-time private classes (MEB, 2017).

Link (2008) states inclusive education as "an education that carries the relationships of the children affected by inadequacies with their peers within a class environment to a higher level, aims to minimize the barriers that those face and uses the methods and techniques of special education to provide the children who are in need of special education" whereas Phillips (2008) puts it as "a philosophical belief which is based on educating all students, no matter what their knowledge and skill levels are, together in the same class.

Providing the knowledge and skills that the individuals with special needs need through special education is one of the important factors of introducing these individuals into the society and give them the ability to live independent social lives (Eripek, 2003). Students with special needs are faced with courses and educational programs that are organized for students who show normal development (MEB, 2000). For this reason, programs of education and courses for individuals that are going to take special education should be prepared in the sense that the knowledge and skills that those individuals will be able to use in daily life are improved and also should prepare them to the social environment (Battal, 2007). Special education is crucial in the sense that providing children who need special education with the ability to become independent adults and let them socialize by improving their self-esteem (Duman, 2003; Sadioğlu et al., 2012).

Physical education, one of the most important educational tools applied by developed societies, contributes to humans' physical, social, cultural and mental developments and helps the adjustment process regarding the continuity of the societal structure (Gür, 2001). Teachers, normal students, students of inclusion, families, school administration and physical environment are the factors needed for the adjustment process of inclusive education to be applied successfully (Batu, 2000). It can be said that teachers come first as the people who will help the individuals with special needs to fit in society, socialize and develop through inclusive education. In addition to teachers must complete education of good quality, they must possess the belief that they can fully fulfill their duties and responsibilities (Yılmaz et al., 2004). Guskey (1987) defines teacher adequacy as "the belief of the teacher that he/she can bring the student's development and performance to a higher level by influencing it." This puts big roles and responsibilities on teachers who participate in inclusive education of students with special needs. Besides, having an adequate level of knowledge in special education and inclusive practices comes out as a necessity for those teachers. In the light of all these information, this study has a purpose of evaluating the views of physical education teacher candidates towards inclusive education.

2. Method

This study with the purpose of evaluating the views of physical education teacher candidates towards the inclusive education of students with special needs is a descriptive survey model. The investigation method used within a descriptive survey model is to describe an existing situation or a situation that had existed as it exists (Karasar, 1995).

The sample of this study consists of a total of 119 students registered in Anadolu University Sports Sciences Faculty and Sakarya University Sports Sciences Faculty physical education and sports teaching departments within the study period 2016-2017.

In this survey, "Inclusive Education Survey" and "Demographic Information Form" collect data. "Inclusive Education Survey" developed by Aksüt, Battal, and Yaldız (2005) is used for detecting physical education teacher candidates' adequacies regarding inclusive education. The scale consists of 5 points likert scale, 28 entries, and 4 sub-dimensions. The reliability coefficient of the whole scale is found as 0.86. In this study, Inclusive Education Scale's reliability turned out to be 0.921.

"Demographic Information Form," which includes the demographical information in relation with the teachers participated in the study has been developed by the investigator. Information given place within the demographic information form can be listed as age, gender, marital status, the existence of a disabled person within the family, participation in lectures, courses, seminars, etc. trainings regarding special education, participation in lectures, courses, seminars, etc. training regarding inclusive education. Data obtained from the survey is analyzed through

the usage of SPSS 20 (Statistical Package for Social Sciences) program, by descriptive statistics, independent t-test, and one-way ANOVA test.

3. Results

Results of personal information forms of the physical education teacher candidates who participated in the survey are shown in Table 1 below:

Table 1. Distribution of teacher candidates according to personal information forms

University	n	%
Anadolu University	60	50.4
Sakarya University	59	49.6
Gender		
Female	51	42.9
Male	68	57.1
Age		
20-22	69	58.0
23-25	42	35.3
26 and above	8	6.7
Marital Status		
Married	4	3.4
Single	115	96.6
Is there any disabled person within your family?		
Yes	8	6.7
No	111	93.3
Have you attended any classes, courses, seminars, etc. in relation to special education?		
Yes	78	65.5
No	41	34.5
Have you attended any classes, courses, seminars, etc. in relation to inclusive education?		
Yes	30	25.2
No	89	74.8
TOTAL	119	100

It is detected that 50.4 % of participants are from Anadolu University, whereas the remaining 49.6 % is from Sakarya University. It is also seen that 42.9 % of the teacher candidates that took place in the survey are female, while 57.1 % of them are male. Age status distribution reveals that 58 % of participants are in the range between 20-22, 35.3 % of them are between 23-25 and 6.7 % of them are 26 and above. Marital status percentages of the survey sample are as follows: 3.4 % of participants are married, and 96.6 % of them are single. 6.7 % of participants answered the question "Is there any disabled person in your family?" as yes, while 93.3 % of them gave the answer no. 65.5 % of teacher candidates attended the survey replied "yes" to the question of "Have you attended any lectures, courses, seminars, etc. in relation with special education?", whereas 34.5 % of them replied as "no." It can be said that a great majority of the participants said yes to this question due to the fact that the course "Physical Education and Sports for Disabled People" took place within the 7th and 8th terms of physical education and sports teaching departmental programs as a required course as of 2006. Lastly, the question "Have you attended any lectures, courses, seminars, etc. in relation with inclusive education?" is answered as yes by 25.2%, and no by 74.8% of the participants.

Table 2. Impacts of physical education teacher candidates on their views regarding inclusive education according to university parameter

	University	N	\bar{X}	Ss	t	p
Sufficiency in recognizing individuals with a need for special education	Anadolu Uni.	60	7.98	1.78924	0.391	0.697
	Sakarya Uni.	59	8.12	1.98645		
Sufficiency in knowing and being able to use the methods and techniques used in inclusive education	Anadolu Uni.	60	35.68	7.62034	1.793	0.076
	Sakarya Uni.	59	38.29	8.25228		
Sufficiency in knowing and being able to apply the principles of inclusive education	Anadolu Uni.	60	29.41	4.62965	0.615	0.540
	Sakarya Ünv.	59	28.86	5.12881		
Sufficiency in assessment and evaluation	Anadolu Ünv.	60	5.46	1.35880	0.681	0.497
	Sakarya Ünv.	59	5.63	1.34815		

Table 2 shows that the mean values of the sub-dimensions of teacher candidates' inclusive education scale defined as "sufficiency in recognizing individuals with a need of special education" ($p=0.697$), "sufficiency in knowing and being able to use the methods and techniques used in inclusive education" ($p=0.076$), "sufficiency in knowing and being able to apply the principles of inclusive education" ($p=0.540$) and "sufficiency in assessment and evaluation" ($p=0.497$) have no statistically significant difference in terms of the university Parameter according to the t-test conducted ($p>0.05$).

Table 3. Impacts of physical education teacher candidates on their views regarding inclusive education according to gender parameter

	Gender	n	\bar{X}	Ss	t	p
Sufficiency in recognizing individuals with a need for special education	Female	51	8.4248	1.80256	1.870	0.064
	Male	68	7.7794	1.90714		
Sufficiency in knowing and being able to use the methods and techniques used in inclusive education	Female	51	37.9346	9.21001	1.126	0.262
	Male	68	36.2647	6.97132		
Sufficiency in knowing and being able to apply the principles of inclusive education	Female	51	30.4532	5.05427	2.601	0.010*
	Male	68	28.1618	4.52023		
Sufficiency in assessment and evaluation	Female	51	5.6373	1.44595	0.606	0.546
	Male	68	5.4853	1.28124		

Table 3 reveals that the mean values of the sub-dimensions of teacher candidates' inclusive education scale "sufficiency in recognizing individuals with a need of special education" ($p=0.664$), "sufficiency in knowing and being able to use the methods and techniques used in inclusive education" ($p=0.262$) and "sufficiency in assessment and evaluation" ($p=0.546$) have no statistically significant difference in terms of the university parameter according to the t-test conducted ($p>0.05$). "Sufficiency in knowing and being able to apply the principles of inclusive education" ($p=0.010$) sub-dimension has a statistically significant difference in terms of the gender parameter ($p<0.05$). This can be interpreted as the views of female candidates regarding "sufficiency

in knowing and being able to apply the principles of inclusive education” (\bar{X} =30.4532) are more positive than the views of male candidates (\bar{X} =28.1618).

Table 4. Impacts of physical education teacher candidates on their views regarding inclusive education according to age parameter

	Age	N	\bar{X}	Ss	F	p
Sufficiency in recognizing individuals with a need for special education	20-22	69	8.2802	1.86350	1.225	0.297
	23-25	42	7.7857	1.79554		
	26 and above	8	7.5417	2.42956		
Sufficiency in knowing and being able to use the methods and techniques used in inclusive education	20-22	69	37.6836	8.50275	0.970	0.382
	23-25	42	36.4167	6.50755		
	26 and above	8	33.8750	10.70093		
Sufficiency in knowing and being able to apply the principles of inclusive education	20-22	69	29.8035	5.25010	1.563	0.214
	23-25	42	28.3201	4.08397		
	26 and above	8	27.7778	4.89394		
Sufficiency in assessment and evaluation	20-22	69	5.6594	1.42585	0.551	0.578
	23-25	42	5.4167	1.20424		
	26 and above	8	5.3125	1.48655		

Table 4 shows that the mean values of the sub-dimensions “sufficiency in recognizing individuals with a need of special education” ($p=0.297$), “sufficiency in knowing and being able to use the methods and techniques used in inclusive education” ($p=0.382$), “sufficiency in knowing and being able to apply the principles of inclusive education” ($p=0.214$) and “sufficiency in assessment and evaluation” ($p=0.578$) have no statistically significant difference in terms of the age parameter, according to the ANOVA test conducted ($p>0.05$).

Table 5. Impacts of physical education teacher candidates on their views regarding inclusive education according to marital status parameter

	Marital status	N	\bar{X}	Ss	t	p
Sufficiency in recognizing individuals with a need for special education	Married	4	8.3333	2.21108	0.298	0.766
	Single	115	8.0464	1.88090		
Sufficiency in knowing and being able to use the methods and techniques used in inclusive education	Married	4	35.0000	13.78724	0.501	0.617
	Single	115	37.0493	7.83164		
Sufficiency in knowing and being able to apply the principles of inclusive education	Married	4	29.5556	0.81650	0.171	0.864
	Single	115	29.1295	4.95291		
Sufficiency in assessment and evaluation	Married	4	5.3750	1.10868	0.263	0.793
	Single	115	5.5565	1.36170		

It can be seen in Table 5 that the mean values of the sub-dimensions “sufficiency in recognizing individuals with a need of special education” ($p=0.766$), “sufficiency in knowing and being able to use the methods and techniques used in inclusive education” ($p=0.617$), “sufficiency in knowing and being able to apply the principles of inclusive education” ($p=0.864$) and “sufficiency in assessment and evaluation” ($p=0.793$) have no statistically significant difference in terms of the marital status parameter, according to the t-test conducted ($p>0.05$).

Table 6. Impacts of physical education teacher candidates on their views regarding inclusive education according to “is there any disabled person within your family?” parameter

	Is there any disabled person within your family?	N	\bar{X}	Ss	t	p
Sufficiency in recognizing individuals with a need for special education	Yes	8	7.3333	2.63674	1.125	0.263
	No	111	8.1081	1.82195		
Sufficiency in knowing and being able to use the methods and techniques used in inclusive education	Yes	8	34.6771	12.39443	0.841	0.402
	No	111	37.1464	7.66206		
Sufficiency in knowing and being able to apply the principles of inclusive education	Yes	8	28.0417	7.89882	0.661	0.510
	No	111	29.2232	4.62416		
Sufficiency in assessment and evaluation	Yes	8	5.4375	1.84076	0.244	0.808
	No	111	5.5586	1.31899		

It is shown in Table 6 that the mean values of the sub-dimensions of the teacher candidates' inclusive education scales “sufficiency in recognizing individuals with a need of special education” ($p=0.263$), “sufficiency in knowing and being able to use the methods and techniques used in inclusive education” ($p=0.402$), “sufficiency in knowing and being able to apply the principles of inclusive education” ($p=0.510$) and “sufficiency in assessment and evaluation” ($p=0.808$) have no statistically significant difference in terms of the “is there any disabled person within your family?” parameter, according to the t-test conducted ($p>0.05$).

Table 7. Impacts of physical education teacher candidates on their views regarding inclusive education according to "have you attended any classes, courses, seminars, etc. in relation with special education?" parameter

	Have you attended any classes, courses, seminars, etc. in relation with special education	N	\bar{X}	Ss	t	p
Sufficiency in recognizing individuals with a need for special education	Yes	78	7.9615	1.84929	0.754	0.453
	No	41	8.2358	1.95540		
Sufficiency in knowing and being able to use the methods and techniques used in inclusive education	Yes	78	36.8793	8.08688	0.189	0.850
	No	41	37.1728	7.96979		
Sufficiency in knowing and being able to apply the principles of inclusive education	Yes	78	28.9587	4.72275	0.570	0.570
	No	41	29.4959	5.18188		

Sufficiency in assessment and evaluation	Yes	78	5.5769	1.37717	0.294	0.769
	No	41	5.5000	1.31339		

It can be derived from Table 7 that the mean values of the sub-dimensions “sufficiency in recognizing individuals with a need of special education” ($p=0.453$), “sufficiency in knowing and being able to use the methods and techniques used in inclusive education” ($p=0.850$), “sufficiency in knowing and being able to apply the principles of inclusive education” ($p=0.570$) and “sufficiency in assessment and evaluation” ($p=0.769$) have no statistically significant difference in terms of the “have you attended any classes, courses, seminars etc. in relation with special education?” parameter, according to the t-test conducted ($p>0.05$).

Table 8. Impacts of physical education teacher candidates on their views regarding inclusive education according to "have you attended any classes, courses, seminars, etc. in relation to inclusive education?" parameter

	Have you attended any classes, courses, seminars, etc. in relation to inclusive education?	N	\bar{X}	Ss	t	p
Sufficiency in recognizing individuals with a need for special education	Yes	30	8.5889	1.87069	1.810	0.073
	No	89	7.8764	1.86297		
Sufficiency in knowing and being able to use the methods and techniques used in inclusive education	Yes	30	39.6361	8.39456	2.130	0.035*
	No	89	36.0852	7.72550		
Sufficiency in knowing and being able to apply the principles of inclusive education	Yes	30	30.2222	4.49663	1.408	0.162
	No	89	28.7803	4.96150		
Sufficiency in assessment and evaluation	Yes	30	5.7667	1.22990	1.014	0.313
	No	89	5.4775	1.38767		

Table 8 shows that the mean values of the sub-dimensions “sufficiency of recognizing individuals with a need of special education” ($p=0.073$), “sufficiency in knowing and being able to apply the principles of inclusive education” ($p=0.162$) and “sufficiency in assessment and evaluation” ($p=0.313$) have no statistically significant difference in terms of “have you attended any classes, courses, seminars etc. in relation with inclusive education?” parameter, according to the t-test conducted ($p>0.05$). It is also observed that the “sufficiency in knowing and being able to use the methods and techniques used in inclusive education” sub-dimension ($p=0.035$) has a statistically significant difference in terms of the parameter at hand ($p<0.05$). This can be interpreted as the views of the candidates who answered the question “have you attended any classes, courses, seminars etc. in relation with inclusive education?” as “yes” ($\bar{X}=39.6361$) are more positive than the ones who said “no” ($\bar{X}=36.0852$) regarding the sufficiency in knowing and being able to use the methods and the techniques used in inclusive education.

4. Discussion

An evaluation of physical education teacher candidates' views regarding inclusive education had tried to be made in this work. In line with this objective, results obtained from the study are as follows:

It is found out that there is no statistically significant difference between the mean values of the sub-dimensions of the views of physical education teacher candidates regarding inclusive education with reference to the university parameter. In this sense, the fact that special education is usually given as a required course under

physical education and sports teaching undergraduate programs in Turkey, as well as the reality that there are no elective courses regarding special education and inclusion can be shown as reasons to the aforementioned statistical result.

It is observed that there is a statistically significant difference between the sub-dimension of "sufficiency in knowing and being able to apply the principles of inclusive education," but there is no statistically significant difference in other sub-dimensions in relation to gender when the views of the participants are examined. Female teacher candidate views regarding the sufficiency of knowing and being able to apply the principles of inclusive education can be interpreted as "more positive" than those of male candidates. The results obtained from this study is parallel to the findings of Akyıldız (2017), Hastings and Oakford (2003), Mcleskey et al. (2001), Şahbaz and Kalay (2010).

There is no statistically significant difference between the mean values of all the sub-dimensions of candidate views in relation to the age parameter. This situation may be derived from the fact that special education lectures are given during the fourth semester under Turkish universities' physical education and sports teaching undergraduate programs. Some other studies were dealing with age parameter such as Buford and Casey (2012) and Sarı and Bozgeyikli (2002) support this result.

Other than that, mean values of all of the sub-dimensions of teacher candidate views towards inclusive education show no statistically significant difference in relation to marital status. The investigation of Özkuloğlu (2015) has similar findings to this study.

Another finding is that there is no statistically significant difference between the mean values of all of the four sub-dimensions in accordance with the existence of a disabled person within the family parameter. Previous studies like Akyıldız (2017), Kayhan et al. (2012), Sarı and Bozgeyikli (2002), Yaralı (2016) also show similar results. It is also found that mean values of all the sub-dimensions of candidate views regarding inclusive education show no statistically significant difference in reference with "attendance to lectures, courses, seminars, etc. regarding special education" parameter. It is seen that special education course must be taken as a requisite in the fourth semester under physical education and sports teaching the undergraduate program. The content of the special education course includes the fundamental concepts and disability groups in relation to special education, but basic concepts regarding inclusive education or information about the application are excluded. For this reason, special education lecture is thought to be as inadequate in influencing the views of teacher candidates towards inclusion practices. Results of this study are parallel to those of Buford and Casey (2012), Sarı and Bozgeyikli (2002), Şahbaz and Kalay (2010).

Lastly, "sufficiency in knowing and being able to apply the methods and techniques used in inclusive education" sub-dimension shows a statistically significant difference with respect to "attendance to lectures, courses, seminars, etc. regarding inclusive education" parameter. Remaining sub-dimensions do not show any statistically significant difference in relation to the parameter at hand. A comment in the way that the views of candidates who participated in lectures, courses, seminars, etc. regarding inclusive education have more positive sufficiency levels in knowing and being able to apply the methods and techniques used in inclusive education than those of the candidates who did not participate in such lectures, courses, seminars etc. can be made at this point. Works of Dolapçı and Demirtaş (2016), Sarı and Bozgeyikli (2002), Şahbaz and Kalay (2010) display similar results in the views of teacher candidates towards their participation in lectures, courses, seminars, etc. regarding inclusive education.

In conclusion, although inclusive education is widely accepted in both legal level and practice within Turkey, it is evident that there are no lectures regarding inclusive education when current ongoing physical education and sports teaching undergraduate programs are reviewed. It can be said that application dimension should also take place along with theoretical knowledge for the sake of inclusive education to meet its goal. Through this way, physical education teachers may train and educate inclusive education students with special needs in a better way.

Besides, special education and inclusion lecture to be given in the status of professional teaching knowledge within the scope of Council of Higher Education (YÖK)'s teacher educating undergraduate programs' renewed physical education and sports teaching undergraduate program framework at the seventh semester as of 2018 could be accepted as a positive development.

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Adequacy of the Integrated and Permeation Approaches to Values Education

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Abstract

Since independence in 1963, the government of Kenya through the education ministry and its agencies has been advocating for the integrated and permeation approaches to values education (VE). This is premised on the assumption that these approaches are effectual. With reference to the secondary school Life Skills Education (LSE) programme, the paper interrogates this presupposition. This, the paper does through the lens of Socrates' insights on the concept of akrasia and knowledge, and Dewey's concept of appreciation. This way, the inquiry reckons that infusion and permeation are piecemeal approaches to VE, as such, they are inadequate. The approaches can often result in the acquisition of simulacra rather than knowledge of values. Hence, the inquiry makes a case for a separate values education subject in the formal school curriculum that should principally focus on helping learners to become virtuous people who appreciate values in lived experience. Such individuals can seldom perform akratic actions.

Keywords: *Akrasia*, Integrated Approach, Life Skills Education, Permeation Approach, Values Education

1.0 Introduction

The government of Kenya has since independence in 1963 sought to promote positive behaviour among students through the inculcation of values. The rationale for mounting values education (VE) programmes is entailed in the national goal of education which explicitly states that educational institutions should strive to promote sound moral and religious values. Nearly all education policy documents in the country attest to this. *The Kenya Education Commission* (KEC) of 1964 – 1965 KEC identified inculcation of values as a goal of education in the society (the Republic of Kenya, 1965). *Report of the National Committee on Educational Objectives and Policies* (NCEOP) of 1976 also put much more emphasis on the goal. A recent policy document is *The Task Force on Re-Alignment of the Education Sector to the Constitution of Kenya 2010* whose report of 2012 is the basis of rolling out the new 2:6:3:3:3 education structure in the country gradually replacing the 8:4:4 system which has been in place since the mid-1980s. The Task Force has retained the national goals of education and training identified by the KEC, NCEOP and subsequent education reports. On the goal of promoting moral and religious values which are the basis of mounting VE programmes, the Task Force elucidates:

Education and training shall inculcate moral and spiritual values, as well as, the valuing of cultural differences within the unity of Kenya. It shall instil the importance of integrity, honesty, respect for others and hard work. Further, it shall develop inter-personal skills and use the curriculum to instil these values (Republic of Kenya, 2012: 25).

By 1976, the curriculum planners had not assigned any specific subject the role of values education, a situation decried by the NCEOP (the Republic of Kenya, 1976). The inquiry infers that at that time the country offered VE using a thematic or integrated approach. The approach entails infusing themes related to VE into various curricular subjects, especially Religious Education (RE). The NCEOP corroborates the inference thus: 'The responsibility for the teaching of ethics of society has generally been left to be undertaken within the teaching of religion because of the traditional role of religion to provide a strict moral code for the community' (the Republic of Kenya, 1976: 6).

The NCEOP deprecated the integration of VE into RE. Memories of the colonial experience were still fresh, and the committee was keen to operationalize the ideology of African Socialism set forth in Sessional Paper Number 10 of 1965. Consequently, the committee attributed the failure to inculcate values in the young through RE (which was synonymous with CRE) to colonialism. The committee recommended that a new stand-alone subject, social ethics, be introduced in the school curricula as a vehicle through which African values could be taught to the young. The committee was categorical that 'the teaching of religion and social ethics should not continue to be mixed up' (the Republic of Kenya, 1976: 7). The NCEOP's recommendation was implemented in 1986 when Social Education and Ethics (SEE) was introduced in the secondary school curriculum.

While rooting for the introduction of a stand-alone VE subject called 'social ethics,' the NCEOP assumed that RE teachers could effectively implement the programme. 'It may, however, continue to be true that the teachers of religion are among the most competent and credible to teach social ethics' (Republic of Kenya, 1976: 7)). This assumption that there is no fundamental difference between a VE pedagogy and that of RE is a curious one that requires an interrogation. Mbae (1990) observes that the use of RE teachers to implement the SEE programme was the official position of the Ministry of Education (MoE) premised on the assumption that ethics has no special pedagogy. The ministry assumed that ethics could be taught in the same manner as RE as well as social education. This resulted in schools teaching about morals without necessarily instilling virtue in the student. Consequently, the phenomenon of *akrasia* as construed by Socrates in the *Protagoras* was not accounted for in the programme. However, a fuller treatment of VE pedagogy is outside the scope of this paper.

The paper observes that the teaching of values through SEE was another integrated approach to VE. As Mbae (1990) points out, the NCEOP had in mind a rather broad conception of the term 'social ethics' which influenced Kenya Institute of Education (KIE) to merge two subjects, (1) social studies and (2) ethics into one: Social Education and Ethics.

KIE (now Kenya Institute of Curriculum Development - KICD) phased out SEE from the secondary school curriculum in 2002 and experimented with another approach that Robb (1998) calls the cross-curricular or permeation approach. In this approach, VE is done through the formal, non-formal as well as informal aspects of the curriculum. Teachers are required to identify and treat value-related issues when they arise in the course of teaching their various subjects. Students are also expected to acquire values such as cooperation, tolerance, and honesty through sports, games, guidance, and counselling (KIE, 2002), informal interactions as well as school ethos.

In 2008 the Kenyan government was influenced by UNO/UNICEF to adopt Life Skills Education (LSE) as a value-based education subject in primary and secondary school curricula. However, LSE was not new at that time as it had been integrated into other subjects from 2003. As a stand-alone subject, LSE is a replacement to SEE phased out in 2002. Kenya saw the need to include LSE in the school curricula after the MoE officials realised it could be 'an important tool that could bridge the gap between students' knowledge and behaviour regarding HIV prevention' (USAID, 2010: 13). The introduction of LSE in the school curricula is yet another attempt to attain the goal of promoting moral and spiritual values in learners spelt out in various education policy documents as one of the eight national goals of education in the country. Of interest to the inquiry is the fact that the new system of education has retained LSE as a value-based subject at the lower secondary level and through infusion into other learning areas at pre-primary and primary tiers. Now that LSE is currently a value-based subject, the paper poses the question: Is LSE another integrated approach to VE? If the response is in the

affirmative, the implication is that the government still has faith in the efficacy of the infusion (and permeation) approach to VE. Hence, there is a need to interrogate the programme in order to ascertain the adequacy of the approach it takes to VE.

2.0 Methodology

Being philosophical in temperament, the paper employs mainly descriptive analysis and the critical approach. Descriptive analysis is akin to discourse analysis. The paper subjects the secondary school LSE programme in Kenya to this kind of analysis with a view to ascertaining its approach to values education. The paper takes recourse to the critical approach to interrogate the educational soundness of the approach to VE in the programme. The deliberations in the paper are informed by Socrates' conception of *akrasia* and knowledge as can be deduced from a close reading of the *Protagoras* and *Meno*. He conceives *akrasia* as acting against simulacra and not knowledge as is popularly believed. His concept of knowledge conflates the cognitive and affective elements of the human personality making it difficult for one to act akratically (Plato, 1891b). The discourse is also informed by Dewey's concept of appreciation which also combines a person's cognitive and affective elements in the valuation process (Dewey, 2001).

3.0 A Critique of the Integrated Approach to VE in Secondary School LSE Programme in Kenya

LSE is, no doubt, a value-based subject in the school curricula. The programme consists of two parts: Life skills (LS) and core living values (CLV). The Kenya Institute of Education (KIE) categorises Life skills as skills of knowing and living with oneself, skills of knowing and living with others, and effective decision-making skills (KIE, 2008: 96). The CLV the programme seeks to instil in learners is twelve: cooperation, simplicity, tolerance, respect, peace, freedom, unity, love, honesty, responsibility, humility and integrity (KIE, 2008: 97). The two components of the programme imply that it is not a stand-alone VE programme; it is an integrated programme. Hence, the teaching of values through LSE, a programme that combines life skills with values education, is yet another integrated approach. A study by Wamahiu (2015) on the practice of value-based education in Kenya confirms the prevalence of the infusion and permeation approaches to VE in the country as well as the integrated nature of the LSE programme. In other words, since independence, the government through the agency of Kenya Institute of Curriculum Development (KICD) still roots for the teaching of values through integration into other subjects.

How is the infusion of VE into LSE done in the programme? The paper notes that although there is an attempt to relate the values identified in the programme to the life skills generally as well as linking specific values to particular life skills (KIE, 2008), the programme places a high premium on life skills at the expense of the values component. For instance, the introduction to the programme makes no reference to values. Instead, it makes it crystal clear that the programme 'concentrates on the development of psychosocial skills needed for life' (KIE, 2008: ii). Overstressing the development of such skills can result in a superficial treatment of the values component of the syllabus, a shortcoming that is attributable to the integrated approach. A casual practice of VE through infusion may not enable students to appreciate values in their lived experience as contemplated by Dewey (2001).

Further to that, the preoccupation with life skills in view of their envisaged benefits in the programme does not accord with values education. The benefits are grouped as educational, social/cultural, health and economic. The introduction to the programme mentions educational benefits such as: enabling students to make appropriate choices that enhance academic performance; and helping students deal with issues that may be detractors in their learning (KIE, 2008: ii). Other benefits of the programme include enabling learners to choose good and reliable friends and helping learners recognize and avoid risky situations.

Apparently, KIE regards life skills as instrumental in bringing about academic success. This observation is corroborated by a study done by Wamahiu (2015) on the practice of value-based education in the country. While academic excellence is a desirable educational goal, there is the danger of overemphasising it to the exclusion of other aspects of education identified by Njoroge & Bennaars (1986). In their unitary concept of education, which they largely deduced from Richard S. Peter's criteria of education, they submit that holistic education consists of

four dimensions: cognitive, normative, creative and dialogical. These dimensions of education, as they call them, correspond to the various aspects of the human personality.

A close examination of the said benefits reveals that LSE programme was also designed to equip students, especially vulnerable ones, with the art of living rather than help them become virtuous people. This runs afoul of the objective of VE. Mackenzie (1901: 16) is categorical that ethics, the study of moral values, cannot be described as art because ‘... in the art the ultimate appeal is to work achieved, whereas in morals the ultimate appeal is to the inner aim.’ The inner aim of VE is the actualisation of virtuous students. In this regard, the programme is more sophistic than Socratic.

Besides the improper conceptualisation of VE in the secondary school LSE course in the country, the infusion approach to VE adopted in the programme has inherent pitfalls. For instance, Robb (1998) argues that the approach provides little room for a Socratic discourse on values. Socrates devotes much time on the subject of virtue, its nature and constitutive elements called values. He discusses the subject with Protagoras in the *Protagoras* and continues in *Meno* with Meno without coming to a definite conclusion. He also treats the subject in several other Platonic dialogues. His general position is that values cannot be easily taught. Remember Socrates’ conception of knowledge (say of values) conflates both the cognitive and affective elements (Segvic, 2006); it is not a matter of a learner being aware of values. As Dewey puts it, a learner can put values into practice only if they appreciate them in their lived experience. He explains the meaning of appreciation thus:

The terms “mental realization” and “appreciation” (or genuine appreciation) are more elaborate names for the realizing sense of a thing. It is not possible to define these ideas except by synonyms, like “coming home to one” “really taking it in,” etc., for the only way to appreciate what is meant by a direct experience of a thing is by having it (Dewey, 2001: 240).

This implies that the practice of VE through an integrated approach is likely to be inadequate. Teachers can hardly afford the time to make learners ‘really take in’ (appreciate) values.

Further to that, hitherto, teachers in the country are not equipped with VE pedagogy. We have already noted the education ministry’s position that teachers prepared to implement the programme of RE can as well teach VE. This assumption has no sound theoretical and practical basis. Following Socrates, the pedagogy of values has to be somewhat different from that of other learning areas. Values education pedagogy should conflate the cognitive and affective aspects of the learner’s being, that is, it should be based on Dewey’s concept of appreciation. This entails helping learners acquire knowledge rather than simulacra of values. In the *Protagoras*, Socrates attributes the supposed value-action binary (or knowledge-action gap when *akrasia* is understood in its common conception as a weakness of knowledge) to the acquisition of simulacra instead of knowledge of values (Plato, 1891b). Since the practice of VE through LSE programme relies on teachers who are ill-equipped with VE pedagogy, such teachers are more likely to promote the acquisition of simulacra than knowledge of values in their learners. Even studies in the field of neuroscience indicate that the cognitive, affective and social learning outcomes are in fact not separable. That the cognitive and the affective aspects work together to inform behaviour. They do not work separately as earlier thought (Immordino-Yang & Damasio, 2007; Damasio & Damasio, 2007). Hence, mere cognitive awareness of values is not a sufficient condition for behaving well.

4.0 A Case for a Stand-alone Values Education Programme in Kenya

The paper has observed that since the attainment of political independence in 1963, Kenya has experimented with two approaches to VE: infusion and permeation. The inadequacy of the infusion approach has been noted. The permeation approach also has its own inherent weaknesses. For instance, it relies on the incidental acquisition of values through the non-formal and informal curriculum. In other words, integration and permeation are piecemeal approaches to VE. As such, they are in and by themselves inadequate approaches to VE.

The shortfalls of these piecemeal approaches notwithstanding, they can make a modest contribution to the character development of students. This is borne out of the realisation that every human activity is value-laden. Similarly, every school activity is imbued with value-related issues. So the entire school curriculum, whether formal, non-formal or informal ought to make a contribution to students’ character development. For instance,

the preoccupation of each school subject should not only be to help students gain insight into its subject matter but also to acquire and appreciate values both intrinsic and extrinsic to the subject. Similarly, non-formal curricular activities such as sports and games as well as informal interactions accord students opportunities to 'catch' values. No aspect of the curriculum can afford to look askance at value-related issues. In other words, the integrated and permeation approaches to ensure that VE is practised in virtually all educational settings.

Even though, there should be a separate VE programme through which VE can be practised rigorously. As observed by Robb (1998), the integrated and permeation approaches do not subject value-related issues that arise to a thorough treatment. This is because through integration teachers are required to not only teach the content of the subject, say Mathematics, but also to promote in their learners two types of values, namely those that are intrinsic to the subject and those that are included in the subject or arise in the course teaching the subject. There is also the question regarding the educational legitimacy of using a subject to teach values that are not intrinsic to it. This could be the reason why some teachers seem to treat such values as an add-on. Besides, such teachers may not be adequately prepared to handle such. Hence, the integrated approach can result in superficial teaching and learning of values, especially those that are not intrinsic to the subjects. Ultimately, what students end up acquiring is simulacra rather than knowledge of values, and this may predispose them to perform akratic actions.

The observation that the practice of VE through integration and permeation approaches lacks rigour finds vindication in both quantitative and qualitative research findings on the effect of non-formal curricular activities on students' behaviour. These studies have yielded conflicting results. Some indicate a positive effect (Holland & Andre, 1994); others show that students' participation in activities such as athletics, music, clubs, and societies does not necessarily improve their behaviour (Manners & Smart, 1995). The discrepancy in the findings indicates that integration and permeation are not sufficient as approaches to VE. This anticipates a stand-alone VE course.

Hence, there should be a separate VE programme that principally focuses on improving students' character by helping them become virtuous individuals. The programme can also act as a referral where value-related issues that arise in the integrated and permeation approaches that cannot be adequately dealt with therein are taken up for a rigorous Socratic interrogation. This way, the three approaches should be seen as complementary to one another resulting in a grand VE approach. The grand approach will ensure that all value-related issues are addressed through one or a combination of the three approaches. The approach captures the observation that VE is not a separate domain. There is empirical evidence that employing several approaches is more effectual than reliance on one (Halstead & Taylor, 2000). The grand approach should serve as a template for VE in the country.

The submission that KICD (formally KIE), tasked with the responsibility of developing, reviewing and approving programmes, curricula and curriculum support materials for basic and tertiary levels of education, should introduce a stand-alone VE programme is implicit in Socrates. In both the *Protagoras* and *Meno*, Socrates lengthily discusses the subject of virtue and its parts, values, as well as its teachability. The discourse commences in the *Protagoras* and continues in *Meno*. He also evaluates its purported teachers and students, such as Hippias, Cleinias, Protagoras and Ariphton (Plato, 1891b). The rigour with which Socrates treats the subject of virtue and its various aspects, values, is such that the piecemeal integration and permeation approaches cannot afford.

Among the current scholars who advocate for a separate VE, programme is Bill Robb. He writes,

For me, without a set time (period or class) to discuss values issues in depth, with a specialist (specifically trained) teacher who knows how to draw out the values implications and how to encourage youngsters to think rationally about complex and sometimes sensitive interpersonal issues, the separate contributions made by cross-curricular mentions, hidden curriculum, and school ethos, would be ineffective (Robb, 1998: 9).

Robb is unequivocal about his stance. He makes it crystal that a stand-alone VE course is inevitable if we are serious about the effectiveness of VE.

The policy basis for a separate VE subject is already in existence in the form of a goal of education. The goal requires education in the country to 'promote sound moral and religious values' (KIE, 2008: v) in students. The goal has been retained as a framework for VE in the 2:6:3:3:3 structure of education. The goal is rendered in *The Basic Education Framework* as follows: Education in the Republic of Kenya is expected to:

Promote sound moral and religious values: Education should promote the acquisition of national values as enshrined in the Kenya Constitution. It should be geared towards developing a self-disciplined and ethical citizen with sound moral and religious values (KICD, 2017: 11).

Through the framework, the KICD seems to give VE a place of prominence by identifying values as one of the pillars of the basic education curriculum, the other pillars being theoretical approaches and guiding principles (KICD, 2017). Even though, the institute still favours the integration and permeation approaches to VE which the study argues should be used besides a stand-alone VE programme. For instance, the institute recommends the integration of VE with religious education from pre-primary to upper primary levels of schooling. Life Skills Education, another integrated VE programme, is introduced at lower secondary level but is abandoned at senior secondary. Just as in the 8:4:4 system, KICD views LSE programme in the 2:6:3:3:3 structure as more of life skills than a VE subject. Regarding the permeation approach, KICD explicitly states: 'The Framework will adopt a values-based approach to education that will create learning opportunities within the formal, non-formal and informal curriculum dimensions to inculcate the desired values in all learners' (KICD, 2017: 14). As noted earlier, the two approaches to make a contribution to a learner's character development save that they are inadequate in and by themselves which necessitates the introduction of a stand-alone VE programme. It is ironic that KICD can make values one of the three pillars of the basic education curriculum without deeming it necessary to have a separate VE programme.

5.0 Conclusion

The paper has demonstrated that the practice of VE through the secondary school LSE programme in Kenya is an integrated or infusion approach. The inquiry notes that the programme is biased towards life skills. Values education is an add-on rather than an integral part of the programme. Besides, both the infusion and permeation approaches to VE have inherent inadequacies. As such, these piecemeal approaches are more likely to result in the acquisition of simulacra of values (cognitive awareness of values without appreciating them in lived experience) than knowledge of values as contemplated by Socrates in both the *Protagoras* and *Meno*.

Owing to the inadequacy of the infusion and permeation approaches to values education, the paper recommends that the Government of Kenya through the education ministry and its agencies should introduce a separate values education subject at pre-primary, primary and secondary tiers of education. The separate VE programme should primarily focus on developing learners' character by enabling them to appreciate fundamental human values. The stand-alone VE programme can also supplement the infusion and permeation approaches resulting in a grand VE approach.

The paper also advocates for the establishment of a National Values Education Council (NVEC) to coordinate the practice of the various values education initiatives in the country. The initial assignment of the council should be to formulate a National Values Education Framework (NVEF). Besides informing the operations of the council, the framework should act as the basis for implementing VE in the country.

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Lived Experiences of Adolescent Boys with Conduct Disorder in Manzini Secondary Schools, Kingdom of Eswatini

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Abstract

Adolescent boys with conduct disorder in Manzini secondary schools exhibit undesirable behaviour which disrupts the general moral fibre in the schools and the community in general. The purpose of this study was to explore lived experiences of adolescent boys with conduct disorder in Manzini secondary schools of the Kingdom of ESwatini. This study was qualitative in nature, and it used an interpretive phenomenological research design because the intention was to get an 'insight' and in-depth information about the phenomenon studied. A group of 20 adolescent boys who were purposively sampled was interviewed and participated in focus group discussions. Thematic content analysis was used to determine some common themes which emerged from the study and these were scrutinised to understand the lived experiences of adolescent boys with conduct disorder in Manzini secondary schools of the Kingdom of ESwatini. It was revealed from the study that adolescent boys with conduct disorder failed to resist negative peer pressure, abused alcohol and other drugs, poorly performed academically and experienced depression, anxiety, and low-self-esteem which led to an array of behaviour problems such as substance abuse, aggression, truancy, and defiant behaviour. It may be concluded from the study that adolescent boys with conduct disorder experience emotional challenges such as depression, anxiety and low self-esteem which led to antisocial behaviours. It may be recommended from the study that parent-child communication should be improved; adolescents should be shown love, adolescents should attend motivational speeches, talk shows and should receive professional and spiritual counselling.

Keywords: Adolescent, Conduct Disorder, Phenomenological

1. Background and setting

Adolescence is described as a period between the ages of eleven (11) and twenty-one (21) which is mainly characterised by behavioural disorders (Gutgesell & Payne, 2004). Research has shown that the world over, adolescents present a wide range of problems at schools, homes, and community at large (Mychailyszyn, Beida, Edmunds, Podell, Courtney, Cohen & Kendall, 2011). In America, Merikangas, Burstein, Avenevoli, Benjet, Georgiade, and Swendsen (2010) found that more males than females abused drugs and other substances, and the prevalence of conduct disorder was estimated to be 6.8-9.5% by then in the USA. The American Psychiatrists Association (APA) (2013) stated that more adolescent boys than adolescent in Australia are affected by conduct disorder, as a result, they experience a high rate of school dropouts, delinquency, and imprisonment. In Europe, adolescents with conduct disorder are also found to be strongly associated with poor academic performance, social isolation, substance abuse and crime-related offences resulting in them being incarcerated (Lopes, Maria, Bernades, Paula, Lopes, Belchior, Delphim & Ferreira, 2014). Therefore, the high

prevalence of conduct disorder and the experiences undergone by adolescents showed an increase as time passed by. Hence, this is a cause for concern the world over, and thus the researchers saw it imperative to explore the experiences of these adolescents in order to come out with means to mitigate the situation.

In a study conducted in the United States of America by Gayle, Byck, Danielle, and Brian (2014) it was found that African-American youth who were experiencing hardships such as discrimination and other stressors ended up developing conduct disorder. The study revealed that adolescents started abusing substances early in life. This interfered with their academic activities at school; hence they underperformed in school work. Their study used a small sample of very low-income, African-American adolescents in an urban area of the Southern city and data were obtained through interviews from caregivers. Their study revealed that these African-American adolescents experienced discrimination due to race and poverty. Hence, they became social misfits. The environment they lived in was characterised by a high level of violence and other socio-economic stressors. Thus, the study showed that poverty and other stressors contributed to the development of conduct disorder resulting in poor academic performance (Frick, 2012; Gayle et al., 2014). Although this study was done in the USA, a first world country; it targeted poor African-American adolescents. Therefore, the researchers note this as both a geographical and socio-economic gap. For this study, the researchers were thus interested in finding out if the same challenges affected the Swazi adolescents in a developing Southern African country. Swaziland is in a different continent, and this study targeted adolescent boys with conduct disorder in Manzini secondary schools of the Kingdom of Eswatini. It was not interested in issues to do with race and disadvantaged socio-economic groups.

Similarly, in Europe, particularly in Germany, Ford, Vostanis, Meltzer, and Goodman (2007) did a study which showed that more male adolescents had conduct disorder related to drug abuse and addiction than girls. The reason why more boys than girl engage in drug abuse is still unknown since it was not the focus of the study, except that if adolescents experience challenges such as lack of attachment, their conduct disorder become severe and they develop callous-unemotional traits (Burns, Phillips, Wagner, Barth, Kolko, Campell&Landsverk, 2003). The study found that about 315,111 counselling sessions were recorded to help adolescents who had conduct disorder related to poor family relationships, bullying, and physical abuse and self-harm. It was also found that (14%) of the adolescents aged 15 and above claimed to self-harm themselves by scratching or cutting themselves, and some swallowed bleach or overdose. Adolescents were overdosing drugs, misuse alcohol, swallow bleach and self-harm themselves because they were experiencing problems with boyfriends, or girlfriends (Hawton et al., 2014). Based on this, it can be concluded that conduct disorder among adolescents is a worldwide challenge that needs special attention.

Wachukwu and Ibegbunam (2012) define conduct disorder as a violation of existing social norms and values by individuals within a given society. Similarly, various studies maintain that conduct disorder is the official psychiatric term for serious antisocial behaviour including the extremes of aggressive behaviour such as fighting, cruelty to both people and animals, destructive behaviour like arson or vandalism (Frick, 2012; Moffit, 2006; American Psychiatrist Association, 1994). It is also characterised by deceitful behaviour including lying, stealing and violation of rules such as running away from home and truancy (Frick, 2012). Ikediashi and Akande (2015) noted that adolescents with conduct disorder have a low tolerance for frustration. Hence, they act on impulse, lose temper easily, lie skilfully, cheat, steal, truant and blame others for their misdeeds. These adolescents also feel irritated by parents or teachers and never seem to learn from their own mistakes (Moffit, 2006). In a nutshell, they are not easy people.

Frick, Obrien, Wootton, and Mcburnet (1994) add that once conduct disorder is severe, it is characterised by callous-unemotional traits. That is lack of concern for school work and lack of remorse for wrong doing (Frick, 2012). Salekin, Rosenbaum, Lee, and Lester (2009) observe that adolescents with high callous-unemotional (CU) traits show a high level of internalizing symptoms associated with depressive behaviour. They are also hopeless and are at great risk of developing other types of psychopathological behaviours such as substance abuse which increase their depression and anxiety situation (Loeber, Burk &Lahey, 2002). From the studies conducted by various scholars, it is clear that conduct disorder is so toxic and destructive to youth. Hence, means

to control and manage it among adolescents is imperative for progressive nations which prioritise the health of the of their youths.

Mwamwenda (2004) stated that adolescents' behaviour is most affected by their notion of being preoccupied about who they really are. The result of which is identity versus role confusion as Erikson (1968) puts it. According to Erikson (1968), the adolescent's mind is essentially a moratorium of the psychosocial stage between childhood and adulthood. It is also a period between the morality learned by the child, and the ethics to be developed by the adult (Erikson, 1963). It is during this stage that the adolescent re-examines his/her identity and tries to establish exactly who he or she is (Santrock, 2010). As adolescents seek to establish a sense of self, they may experiment with different things, activities and behaviours: both social and antisocial (Schwartz, 2001). The result may be that, those who fail to define themselves appropriately; end up engaging in antisocial behaviour (Erikson, 1968). Thus the researchers observe that this is what is prevalent in the Manzini secondary schools and hence, the researchers were interested in exploring the experiences of these adolescent boys with conduct disorder.

Choudhury, Blakemore, and Charman (2006) concur with Erikson and maintain that adolescence is a critical period for social, physical and cognitive changes. The same observations were made by Casey, Getz, and Galvan (2008) who pointed out that the adolescent stage is associated with increased risk taking, poor decision making and antisocial behaviour that put an individual at risk towards the love for exploration and appetite for joy and funny. Hence, they have a high temptation for drugs and other impairing substances (Santrock, 2010). However, the primary concern for this study was to explore the lived experiences of these adolescent boys with conduct disorder in the Manzini secondary schools of Swaziland in order to come up with intervention strategies to address the situation.

The American Psychiatrist Association [APA] (2013) further states that the diagnosis for conduct disorder is appropriate for individuals typically under the age of 18. Such individuals should engage in at least three of 15 behavioural criteria within the four Diagnostic and Statistical Manual (DSM) categories of aggression directed to people or animals. This includes bullies who threaten or intimidate others, initiate fights and steal (Frick & Nigg, 2012). Besides bullying, destruction of others people's property, deceitfulness or theft which goes with lies done in order to obtain goods or favours from people. The last characteristic according to the APA (2013) is the serious rule violations which include truancy before the age of thirteen (13) and running away from home overnight. Such behaviours are common in Manzini, and the researchers were interested in exploring their experiences in their nature of life.

The American Psychiatrist Association (2013) notes that conduct disorder is a worldwide concern and is estimated to have affected 51.1 million people globally as of 2013, 1-10% of such sufferers came from children. According to the APA (2013), among the incarcerated adolescents, rates of conduct disorder were between 23% and 87%. This shows how serious this condition is affecting the youth the world over. Some of these adolescents were substance abusers, and literature shows that this also affected their academic performance which dropped drastically leading to some becoming social misfits (Frick, 2012).

Some studies indicate that bad experiences are highly associated with conduct disorder (Gayle et al., 2014; Burns et al., 2004). Nevertheless, from the literature done, none of the studies used qualitative methods to explore lived experiences of adolescent boys with conduct disorder in the Kingdom of ESwatini. The researchers noted these gaps, and it became a primary concern in this study to cover the population, geographical and methodological gaps. The researchers note that qualitative research is best suited for understanding people's experiences from their own contexts; hence it was adopted for this study.

Bosiakoh and Andoh (2010) conducted a study on juvenile delinquency in Ghana, and this was a quantitative study on the lived experiences of youth offenders in Accra. The study showed that there are worrying numbers of adolescents with conduct disorder who end up being arrested for committing a crime in Ghana. Delinquency became a means to their ends because of the difficult situations they are subjected to (Moffit, 2006). The study used six adolescents from a correctional centre in Accra, the capital of Ghana. Data for their study were collected

through questionnaires and conversations with the participants. The results showed a strong relationship between conduct disorder and association with delinquent peers, lack of support from extended family, malfunctioning of the nuclear family, school apathy and substance use were also grave experiences that gave rise to conduct disorder. Similarly, it was noted that most adolescents indulge in marijuana and alcohol consumption as a coping strategy to endure the challenges that came along with living outside with their friends. Thus, conduct disorder among adolescents in this part of the world, is also a grave concern.

The results of the study by Bosiakor and Andoh (2010) further revealed that adolescents overdose themselves with drugs, misuse alcohol, swallow bleach and self-harm themselves because they were exposed to problems with boyfriends or girlfriends (Hawton et al., 2014). However, this study focused on adolescent boys from one correctional centre in the capital city of Ghana. It never studied adolescents found in communities like schools where most conduct disorders are prevalent (Mychailyszyn et al., 2011). Thus, the researchers took this as a gap in the literature which this study sought to cover because they noted that the problem of conduct disorder among adolescents is a global concern.

Similarly, a study was carried out by Diwe, Aguocha, Duru, Uwakwe, Merunu, and Nwefoh, (2016) in South East Nigeria on gender differences in the prevalence of conduct disorder among adolescents. It was a school-based descriptive cross-sectional survey of 402 students from selected public and private schools in Orlu Imo state. The study used mixed methods with a sample of both boys and girls. However, it was not their primary concern to explore lived experiences of the adolescents. The study was centred in one region. The finding revealed that sixty-nine per cent of adolescents in South East Nigeria were involved in cultism, thirteen per cent were smoking; twelve per cent were involved in truancy; three per cent were drinking alcohol. The study also indicated that such experiences were mostly associated with negative peer influence. These results confirmed a study by Monahan, Steinberg, and Cauffman (2009) that postulate that once an adolescent affiliates with deviant peers, he or she is most likely to develop conduct disorder. This also agrees with Bandura's (1977) theory who theorized that behavior is learned from the environment. Thus, Bandura (1977) and Jessor (1987) noted that conduct disorder among adolescents is prevalent right across the globe. Hence, the need to explore the experiences of adolescent boys with conduct disorder in the Kingdom of ESwatini. At the time of writing, the literature on this phenomenon in ESwatini was still scanty if not none.

In Southern Africa, South Africa to be specific, Sosnovik (2008) studied adolescents in three different clinics, and the findings showed that conduct disorder among adolescents was rife. These individuals experience lack of attachment during infancy, and they also experience neglect and abuse at the adolescent stage. Hence, they feel hopeless in life and engage in different behaviour problems. These findings also concur with the findings of the international studies regarding the co-morbidity of the parent-child relationship (D'Ambrosio, 2007; Bleiberg, 2001). These studies showed that there is a significant association between conduct disorder and lack of attachment. Sosnovik's (2008) study indicated that children who have been removed from home show a significantly higher degree of conduct disorder. These adolescents ended up abusing substances as a way of expressing their anger (Bleiberg, 2001). It was also indicated that about 15.95% of the adolescents in South Africa showed conduct disorder, with coloured children more affected than blacks or other races. The reason for this remains unexplored.

In the Kingdom of ESwatini, many secondary schools are also facing challenges of dealing with cases of conduct disorder exhibited by adolescent boys on a regular basis (Mhlongo, 2005). The school community; teachers and students to be specific live in perpetual fear of adolescents who exhibit conduct disorder during and after instructional time (Mundia, 2006). These boys engage in different antisocial behaviour that put their lives and those of other people in a risky situation (Siziya, Muula & Rudatsikira, 2007).

In this study, the researchers have observed that adolescent boys in the Manzini region of the Kingdom of ESwatini have recorded cases of conduct disorder which impacted negatively on the operations of the schools and the community at large (Mundia 2006). This kind of behaviour has seen the schoolboys failing to attain their educational goals because they always fight, bully others and are so destructive (Siziya, Muula & Rudatsikira, 2007).

The researchers noted that such antisocial behaviours are most common in the Manzini secondary schools of the Kingdom of ESwatini, particularly in the worse performing schools. According to Siphpho, Dlamini and Nxumalo (2013) the Manzini region leads in violent students in secondary schools. A report from the Examination Council of Swaziland (ECOS) of 2016 also revealed that in the academic year of 2015-2016, Ponyoka High school (pseudonym) recorded 94 failures with 43 thirds, 37 second graders and only 4 first class passes at Junior Certificate Examinations (JC) level because students fight and dodge classes at school. These observations are also in agreement with the study by Siziya et al. (2007) on the prevalence and correlate of truancy among adolescents in the Kingdom of Eswatini. Truancy was associated with being bullied, low academic achievement grades, starving from hunger because of lack of food at home and abuse of alcohol and marijuana. This study also showed that some adolescents engaged in truancy in order to take care of themselves. They lacked support from family members after the death of their biological parents, hence get piece jobs while at school and would alternate coming to school and work.

Siziya et al. (2007) study was a national survey conducted ten years back without a specific setting in the Kingdom of ESwatini. It looked at only one aspect of conduct disorder "Truancy" and used secondary data from the national health survey of 2003. It never explored the lived experiences of adolescents, but it studied the prevalence and correlated of truancy among adolescents in the Kingdom of ESwatini. The national survey used in-school adolescents; both boys and girls in the Kingdom of ESwatini, who were randomly selected in secondary schools. Data were collected through self-reported questionnaires without the use of the open-ended nature of questions suitable to explore lived experiences. In this study, the researchers focused on the experiences of adolescent boys with conduct disorder, using a qualitative approach to get the boys' experiences from the boys' point of view. Data were collected from participants in the Manzini region, a central and most populated region in the Kingdom of ESwatini (Masson, 2017). This was done in order to increase the researchers' understanding of this phenomenon in the Kingdom of ESwatini.

Mhlongo (2005) also conducted a study on adolescents who were abusing drugs in Msunduza location in Mbabane, the capital city of the Kingdom of ESwatini. A quantitative exploratory, descriptive design was used to investigate the views and options of families and adolescents about drug abuse in Msunduza. Closed-ended questionnaires were employed as data collection instruments because the focus was not on finding out about adolescents' experiences. Drug abuse was found to be related to high crime rates, violence, corruption, and drainage of human, financial, and other resources that could be used for social and economic development in the Kingdom of ESwatini (Mhlongo, 2005; Muula, 2006). The results of the studies by Siziya et al. (2007) and Mhlongo (2005) were done ten years back and did not directly address conduct disorder. Hence, these researchers noted that literature on lived experiences of adolescent boys with conduct disorder in the Kingdom of ESwatini remained scanty.

2. Objectives of the study

This study sought to:

- 2.1 Establish how boys with conduct disorder behave in secondary schools.
- 2.2 examine the challenges faced by adolescent boys with conduct disorder.
- 2.2 determine if adolescent boys with conduct disorder abuse drugs and other substances.

3. Theoretical framework

This study was informed by Richard Jessor's (1987) Problem Behaviour Theory (PBT). The researchers thought that this theory is relevant in explaining the lived experiences of adolescent boys with conduct disorder. This theory explains how and why adolescents experience the phenomenon of conduct disorder and exhibit problem behaviour that shows total contrast with societal expectations. The theory explains the socio-psychological processes that underlie behaviour and shape the course of development both positively and negatively. This include among other things, the social models, social and personal controls, social supports, contextual opportunity, personal vulnerability and past engagement in risk, health and pro-social behaviours (Kabiru,

Beguy, Ndugwa, Zulu & Jessor, 2012). Monahan and Hawkins (2012) stated that the Problem Behaviour Theory is a legacy of a developmental, behavioural science approach to inquiry that insists on the joint consideration of the social environment and individual determinants of action.

The problem behaviour according to Jessor (1987) emerges from three structures and interactional systems that are: behaviour system which includes the problem and conventional structures; personality system which involves a composite of persistent, enduring psychological factors and includes the motivational-instigation structure, determined by value placed on achievement and independence; the personal belief structure related to a person's concept of self-relative to society; and personal control structure which gives a person reasons not to participate in problem behaviour. According to Jessor (1987), the problem behaviour is the behaviour that departs from the social and legal norms of society and causes social-control responses from external sources. The adolescents may take risks, violate the rights of others, abuse illicit drugs, affiliate to gangs and engage in criminal acts. Conventional behaviours according to this theory are that behaviour that is socially and normatively expected and accepted. This theory upholds the view that if the personality systems and perceived environment systems clash, behaviour problems manifest (Jessor, 1987; Costa et al., 2007) and the core features of the adolescent personality are impulsivity, risk-taking, perceived invulnerability, struggling to find personal identity, errors in thinking due to being locked into normative peer culture, rebellion towards authority because there are disturbances in psychosocial adjustment, clash with the norms and expectations of the culture and society which include positive peer culture, healthy sexual adjustment and result in problem behaviours that include marijuana, gangsters, smoking, alcohol abuse or drunk driving, vandalism and theft.

Jessor and Jessor (1977) stated that problem behaviour often results in low achievement, focus on independence, favorable attitudes towards deviancy, adoption of values that are counter to social expectations and low self-esteem. The perceived environment system includes two structures that are; distal which is inclusive of a person's relationship to his/her support network and proximal which deals with a person's environment relationship to avoidable models of behaviour (Costa, Jessor, & Turbin, 2007). Therefore, problem behaviour is associated with high peer approval, peer models, low parental control, support and influence; and incompatibility between parental and peer expectations (Jessor, Turbin, Costa, Dong, Zhang, & Wang, 2003). Thus, this theory was selected because it suits very well in explaining the experiences of adolescent boys with conduct disorder in Manzini High schools in the Kingdom of ESwatini.

4. Empirical studies

Many studies have shown that adolescents develop conduct disorder and engage in risk-taking behaviours including substance abuse due to the traumatic stress and hardships they experience in life (Raza, Adil & Ghayas, 2008; Mhlongo, 2005). Steinberg and Monahan (2007) state that early and middle-aged adolescents (11-14 years olds) experience challenges such as failure to resist peer pressure. Similarly, Erikson (1968), Mwamwenda (2004) and Steinberg (2005) uphold that peer pressure and peer influence are rife during adolescence, particularly because adolescents value their friends much more than their parents. Adolescents fail to resist negative peer pressure because they do not want to lose their friends because peers give social support during difficult moments (Brown, 2004). However, Anderson (2015) reveals that by the age of 18 upwards, adolescents begin to develop self-reliance and overcome the challenge of peer pressure due to maturity.

Solomon (2015) also found out that adolescents with conduct disorder experience a challenge of being labelled and stigmatised. Link and Phelan (1999) uphold that labelling and stigmatisation is a powerful and persistent force in the lives of those being labelled, particularly because they end up experiencing social rejection which becomes a persistent source of social stress. According to Solomon (2015) and Link, Phelan, Bresnahan, Stueve, and Pescosolido (1999) negative labels alter a person's self-concept, hence has a potential to damage his or her quality of life by making that person develop a deeply negative view of him or herself. Link et al. (1999) maintain that due to experiencing rejection associated with labelling and stigmatisation adolescents end up identifying themselves with the stigma and behave according to the stigma associated with them.

Brown (2010) postulated that negative labels make an individual end up being hostile as a defence mechanism for survival purposes and such individuals begin to view themselves as outcasts and adopt that behaviour characterised by the negative label. Vissing, Straus, Gelles, and Herrop (1991) stated that once an individual is referred to as a thief, or a prostitute, or a deviant, it is like one is quickening the process of that behaviour to that particular individual. A person identifies with the label which is a self-fulfilling prophecy (Davies, 2000).

Some studies have shown that adolescent experience a lot of things that put their lives at risks such as alcohol abuse and reckless driving. Adolescents also end up being sensational seekers or people who allow openness to experience a lot of things such as abusing substances, engaging in criminal related acts and other sexual practices that put their lives at risk (Moffitt, 2006). Renier, Murphy, Bartolomie, and Wood (2016) also revealed that adolescents experience rapid neurological, hormonal, cognitive and social changes that bring change in relationships with parents.

Alhyas, Ozaibi and Elarabi (2015) argued that some adolescents perceive substance abuse as related to parental-adolescent relationship, peer pressure, substance availability, religiosity, monotony, insufficient knowledge of the detrimental consequences of drug abuse and poor monitoring by parents or caregivers. According to Alhyas et al. (2015) adolescents also indulge in alcohol and drugs because they have friends who also use such substances. This is an indication of how powerful peer influence is. Similarly, Miller and Plant (2010), Woicic, Stewart, and Conrod (2009) state that most adolescents abuse substances to numb negative emotions in order to forget about any bad experience they encounter in life.

5. Methodology

This study employed a purely qualitative approach which followed a phenomenological approach design. The aim of this study was to explore the lived experiences of adolescent boys with conduct disorder in the Manzini secondary schools of the Kingdom of ESwatini. A phenomenological research design was used in this study because the study attempted to interpret experiences and perceptions of participants regarding particular events in order to understand the participants' meaning ascribed to those events (McMillan & Schumacher, 2010). Hence, the phenomenological design allowed the researchers to describe the experiences as perceived by the participants (Donalek, 2004). This study is purely qualitative and individual interviews with the participants were first conducted followed by focus group discussions with five adolescent boys forming 4 groups in total.

The sampling technique used for selecting the four schools and twenty adolescent boys was a purposive sampling which allowed the researcher to target those adolescent boys who had high cases of disciplinary problems. The researchers assumed that learners with conduct disorder are well represented in the selected schools because these schools were identified through the Ministry of Education and Training as disciplinary problem schools and thus, they were rich in the behaviour patterns which were of interest to the researchers. Therefore, the researchers believed that more information would be obtained from the selected schools which were experiencing the phenomenon studied. Purposive sampling was therefore adopted to ensure that the right participants with the intended behaviour attributes were targeted to participate in the study. Creswell and Clark (2011) argue that purposive sampling involves identifying and selecting individuals that are knowledgeable or experienced with a phenomenon which is of interest to the researcher. In this study, the focus was on the lived experiences of adolescent boys with conduct disorder which tried to answer a question like, "How is it like to live with conduct disorder?"

Data collection was done through individual interviews and focus group discussions. Voice recording from Hewlett Packard (HP) was done during the interviews and the focus group discussions to allow transcription of data at a later stage to construct the meaning of what the participants were saying. Both the individual interviews and focus group discussions took 45 minutes to one hour and were conducted in a language the participants were comfortable with (English or siSwati). The data were gathered on lived experiences of adolescent boys with conduct disorder in the Manzini secondary schools of the Kingdom of Eswatini. The open-ended questions were directed to the participants' experiences, feelings, beliefs and convictions about the theme in question.

Interviews were used to collect data in this study because they allowed for the collection of in-depth information from the participants. Interviews were also appropriate in this study because there was no participant influencing one another and this alone increased the quality of information obtained while eliciting the whys behind participants' reactions (Patton, 2002). Individual interviews were also appropriate in this study due to the nature of the topic. One may not be free to respond to some sensitive questions in the presence of other participants. Focus group discussions were used because they allow for the collection of data in a social context where participants could consider their own perspective among other people (Patton, 2002). Focus group discussions also allowed the researchers to gain an understanding of the thoughts and opinions of a targeted group around a specific topic (Kruger & Casey, 2009).

In this study, the researchers avoided bias in data collection by suspending any preconceived personal experiences that might unduly influence the data gathered from participants. Trustworthiness to ensure that the research is systematic and the principle was achieved through establishing credibility, transferability, dependability, and confirmability. The researchers were also conversant that every study has its own ethical implications. Hence, ethical considerations in this study consisted of the following: informed consent, protection from harm, confidentiality, anonymity, autonomy, and honesty with the professional and internal board. Data analysis was done according to the meaning generated from the data. The interviews were audio recorded, and the audio recordings were transcribed word-by-word (verbatim) into word processing documents. A content analysis of the transcribed communication was carried out to generate meaning from what the participants said.

Since this study was purely qualitative, qualitative methods were employed in analyzing the data collected from the participants. This study employed content analysis, a highly flexible method because it aims at revealing the apparent content of the item in question and thus interprets meanings (Yin, 2011). Content analysis, according to Hoyle et al. (2002, p. 397) "takes on or both of two major approaches: coding the narratives according to discrete themes or categories and rate the narratives on continuous dimensions." The data were coded and then classified under identified categories (Leedy & Ormrod, 2014) which assisted the researchers in identifying the emerging themes.

6. Findings and discussions

6.1. The behaviour of adolescent boys with conduct disorder

The following themes emerged from the in-depth interviews. They are corroborated by the verbal quotes from the in-depth-interviews with adolescent boys from the four secondary schools under Manzini region. Sub-themes were also derived from the data after thorough listening to participants during the interviews.

Table 1: Emerging themes from interviews

Objectives	Themes	Sub-themes
Establish how boys with conduct disorder behave at secondary schools.	1. Impulsivity and rejection of adults' advice	▪ Risk-taking behaviours and being incarcerated
	2. Callous unemotional traits and narcissism	▪ Callous-unemotional traits leading to risk-taking behaviours, substance abuse and defiance
	3. Sensation seeking and risk-taking behaviours	▪ Sensation seeking and risk-taking behaviours resulting in injury, substance abuse, and incarceration and self-harm
	4. Aggressiveness versus depression and anxiety	▪ Violent, low self-esteem and hopelessness

6.1.1 Impulsivity and rejection of advice from adults

The participant adolescent boys from the four secondary schools revealed that they have a problem of acting without thinking, particularly when they see their friends doing something that is of interest to them. They get carried away and fail to take any advice because they think they are grown up and are free to do as they please. The findings revealed that they end up being in trouble with authorities at school, community, and home.

The verbal quotes below attest to the above sentiments:

At times I do things without critically thinking about the outcomes. I also feel that I'm at liberty to do as I pleased because I'm grown up, and I hate being always lectured like a six-year-old (Participant N0: 3, 18 years old, Form 2, from school A).

I hate the idea of being controlled and told what to do or not to do. It drives me crazy, and that's why I sometimes defy my parents' orders (Participant No: 3, 16 years old, form 3, school B).

I'm always quick to take actions without considering the consequences, particularly when I see my friends doing the same thing. Being a person of this nature, I have caused trouble with the law. I was once suspended from school for smoking marijuana due to the influence of my friends (Participant No: 4, 17 years old, school D).

6.1.2 Callous-unemotional traits and narcissism

Most participant adolescent boys in this study attested that they are usually not remorseful for any bad behaviour they exhibit either at home, school, and society at large. They revealed that even if teachers and parents express their concern about their behaviour, they find it hard to adjust because they think that their behaviour is appropriate as long as it suits them.

The following verbal quotes reflect the experiences of the boys as they put it across:

It has been a while now that stealing from my parents has become a habit for me. Although my parents expressed their disappointment with my action, I'm not feeling any remorse because I want to satisfy my needs. I steal from them so that I can have money to spend on alcohol and have fun with my friends (Participant No: 4, 17 years old, Form 3, from school D).

Drinking alcohol with my friends makes me feel good and boosts my ego. Hence, I'm not ashamed of the stigma associated with it. As long as I enjoy myself, I do not see any problem (Participant No 1, 17 years old, Form 2, from school A).

I don't care about anyone who tries to warn me of the way I behave. My parents have tried, but I disregarded any word of warning because I think they are over controlling me. They say I'm an embarrassment to the family, and so be it, and I don't care. They had their time (Participant No: 2, 19 years, Form 4 from school D).

6.1.3 Sensation seeking and risk-taking behaviour

The participants indicated that their behaviour is characterised by preoccupation for sensation or excitement seeking as one way of gratifying their needs and boosting their ego. However, they also revealed that during their search for excitement, they end up engaging in risk-taking behaviours including alcohol abuse and drug abuse, stealing, vandalism, fighting, casual sex and truancy which has put them in the hands of the law enforcement agents.

The following verbal quotes confirm the issues raised above:

I always wanted to have fun with my friends, particularly during our leisure time. We usually while away time to drink alcohol and smoking dagga. This started when we were experimenting if it would drug us (Participant No: 4, 17 years old, Form 3, from school D).

Indeed, I do behave undesirably at home and at school. I sometimes dodge my parents and sleep over at my friend's place lying to them that we are studying for the test yet the intention is to have fun with my friends. This usually happens on Fridays when my friends and I go partying with our girlfriends (Participant No: 1, 17years old, Form 2, from school A).

On one occasion, drinking alcohol landed me in the hands of the law enforcement agents. We fought over a girl. We were detained, beaten and later released because we were below 18 years old (Participant No: 1, 17years old, Form 3, from school C).

We did enjoy fun, but one day police took us to the police station where we were interrogated and severely beaten for fighting due to alcohol influence (Participant No: 1, 17 years old, Form 4, school C).

6.1.4 Aggressiveness versus depression and anxiety

When the participants were asked about the undesirable behaviour they exhibited at school, home or community at large, a majority of them revealed that they would act so weird because they were confused by the situation they were going through in life. They indicated that they were overwhelmed by anger which resulted in them losing temper and end up acting so weird. They also lose interest in pleasurable activities and sometimes feel nervous. These experiences eventually made them act violently to other people and to themselves. As a result of experimenting with drugs and alcohol became the only option to reduce stress.

The following verbal quotes confirm the issues raised above:

I'm not so sure of what has become of me. I'm always angry, and at times I feel disconnected to the world and want to be alone. That is why I prefer smoking marijuana because it defuses such feelings. (Participant No: 5, 17 years old, school A).

During my leisure time, I used to play soccer with my friends. However, it no longer feels that pleasurable as it used to. I'm always bored and feel disconnected from the world. (Participant No: 3 16 years old, form 3, school B).

I'm no longer the person I used to be. I always feel tired and hopeless. However, I also have a fear of the unknown. I keep wondering about this life I'm living, and I can't sleep well. At school I no longer do well in my subjects, I hate going to school, and I just feel I can terminate my life now and for good. (Participant No: 3, 16 years old, form three, school B).

6.2. The challenges faced by adolescent boys with conduct disorder

The adolescent boys from the four secondary schools were also asked to describe the challenges they faced in life. The participant's experiences are explicitly described by the boys as they revealed the challenges they face in life. Table 2 below is a summary of themes of the experiences which emerged from their challenges.

Table 2: Themes that shows the challenges faced by adolescent boys with conduct disorder

Objective	Themes	Sub-themes
Examine the challenges faced by adolescent boys with conduct disorder	1. Failure to resist negative peer pressure	<ul style="list-style-type: none"> ▪ Accepting risky behaviours and substance abuse
	2. Labelling and stigmatisation	<ul style="list-style-type: none"> ▪ Self-fulfilling prophecy and identifying with the stigma
	3. Poor parent-adolescent relationship and ineffective communication	<ul style="list-style-type: none"> ▪ Substance abuse ▪ Truancy and delinquent behaviour
	4. Poor choice of friends	<ul style="list-style-type: none"> ▪ Risk behaviours such as crime and substance abuse ▪ Drug dealing

The findings from interviews and focus group discussions with adolescent boys from the four secondary schools are summarised in Table 2 above. The results of the study revealed that adolescent boys had so many challenges including failure to resist negative peer pressure. A majority of the boys stated that it was not easy to be on your own because there is a lot that they gain from being with peers. According to the study being a peer group member boosts one's ego, gives him pride and power to do things while fulfilling the need for a sense of belonging. The following quotation attests to what the participants said about the challenges they encounter in life:

I can't be on my own, but in a group, I get confident, pride and power to do things. Once I am with my friends, I do anything they do even if it is not right. I can't refuse when my friends say we must experiment with alcohol and dagga. Participant No: 5, 18 years, form 4, from school A.

I always feel that I am a man and gain confidence whenever I'm within my gang. They support me on what I do. Participant No: 5, 18 years old, from school A, focus group 2.

Participants in this study both from interviews and focus group discussions revealed that being labelled and stigmatised was a demotivating factor among adolescent boys. They mentioned that being associated with the stigma had a negative impact on their lives. Hence, they ended up attaching themselves to the stereotype and would see no reason to behave well because they were already known as bad people. The following quotations represent their sentiments:

It hurts to be labelled as my father called me a drunkard. I see no reason to stop drinking because it makes no difference. People can't stop to say I'm a drunkard even though I have made many efforts to quit drinking. Participant No: 1, 19 years old, Form 4, from school.

I have a problem. I hate to be called names. This is the reason why I can't respect my teachers who call me a lunatic and that is the reason I also act so weird and much more than a mad person does. It is pointless for me to be good. Participant No, 1, 18 years old, from school D, Focus group 4.

The study also revealed that poor parent-adolescent relationship and poor communication with parents was another challenge the boys experienced in life. The study showed that a poor relationship and poor communication between parents and adolescents prompted adolescents to engage in risk-taking behaviours such as substance abuse, truancy and other antisocial behaviours that put their lives at risk of being arrested. The following verbal quotes attest to the above sentiments:

I'm stressed. I sometimes don't go home, but be at my friend's place taking drugs just to ease the stress I go through at home because my parents are very strict and harsh to me. Participant No: 1, 16 years old, Form 2, from school.

I just don't receive any warmth from both my parents. No one is prepared to listen to my concerns. Participant No: 3, 17 years old, Form 1, focus group 3, from school C.

In addition to the above, the study also showed that a poor choice of friends was also another challenge experienced by the boys. The results of the study showed that adolescents ended up associating themselves with bad friends because the good ones rejected them for their undesirable behaviour. Hence, choosing bad friends becomes the only option since a human being is a gregarious creature. As a result, they exhibited undesirable behaviour because the people in their closest were also not behaving well. The following quotations attest to that:

I associated myself with older boys who were employed and who took alcohol and drugs. They introduced me to substance abuse. I really had no choice because my other friends judged me for my behaviour and drugs are cheap to get since I have no money. Participant No: 2, 16 years old, Form 3, from school C.

My good friends rejected me after finding out that I was an alcoholic. I had no option, but I joined a gangster, and I received a warm welcome there. Participant No: 5, 17 years old, from School D, Focus group 2.

6.3. Lived experiences of adolescent boys with conduct disorder and their use of drugs and other substances.

The adolescent boys were asked about how they perceive drugs and other substances. Table 3 below is a summary of themes which emerged from the participants' responses to their perceptions of drugs and other substances.

Table 3: Summary of themes on how adolescent boys with conduct disorder perceived drugs and other substances

Objective	Themes	Sub-themes
Determine if adolescents with conduct disorder abuse drugs and other substances	1. Substance abuse as caused by the poor parent-adolescent relationship	▪ Defiant, truant behaviour and substance abuse as a stress reliever
	2. Substance abuse as influenced by peer pressure	▪ Leading to risk behaviour and imprisonment
	3. Substance abuse as a means of experimentation	▪ Addiction and poor academic performance
	4. Poor monitoring by parents	▪ Gives a chance to adolescents to engage in substance abuse and other antisocial behaviours
	5. The influence of media and social media	▪ Drug abuse through information sharing from social media and imitating models from the media

The findings from the study revealed that adolescents perceived substance abuse as a good thing because they sometimes find refuge and solace in drugs, particularly when they do not receive warmth from their parents or guardians. Hence, poor parent-adolescent relationship and poor communication are viewed as contributory to substance abuse among adolescents. The following verbal quotes from the participants confirm the above:

Life is miserable at home. My parents are all loud. Hence, living with them is hell. I prefer going out my friends and have fun in smoking and drinking alcohol. Participant No: 2, 17 years old, from school C responded thus in a focus group 3.

My parents are very strict. I am not given any chance to explore the world. I am always encaged and restricted to many activities. My life is all hell because both of my parents are not easy to convince. Hence, I end up using the little chance I get to be happy with my friends. Drinking alcohol is the only way to have fun once I sneak out. Participant No: 4, 16 years old, Form 2, from school C.

It also transpired from the study that peer pressure is also a factor which influences substance abuse among adolescents because adolescents fail to resist negative peer pressure due to the love of being in a group which gives them security by belonging to a social age group. Hence, they conform to the group norms and values no matter how deviant or weird they are. Some adolescent participants had this to say:

I was told that marijuana is good for maths and boosting confidence. I got hooked up and started smoking it. It was not easy to refuse since because I also wanted to do what is done and experience a sense of belonging. Participant No: 5, 19 years old, from school A.

As much as I hated taking drugs, but there was no option because the clique I belonged to was a group of dagga smokers. They demonstrated how it is done and really we had to comply with our boss or gang leader otherwise I put my life to danger. I did not want to be a sell-out because selling-out is punishable in our gang. Focus group 4, Participant No: 4, 17 years old, from school A.

Some participants revealed that failure to monitor adolescents by parents is a result of being too much committed to work. The results of the study also showed that and negligence by some parents or guardians gives space to adolescents to abuse drugs and other prohibited substances. Some adolescents end up associating themselves with bad friends and use their time recklessly as no one monitors them. The following verbal quotes attest to the above sentiments:

My parents are busy people, and they do not have time to monitor our whereabouts and our behaviour on a daily bases. Even if we come home drunk, they fail to notice that due to exhaustion. Focus group, 2, participant 5, 18 years old, from school B.

When I come home late and drunk, no one bothers to talk to me. I do as I please. My parents are working and usually come home exhausted from work. Participant No: 4, 17 years old, from school D.

Data from adolescent boys indicated that a majority of adolescent boys believe that substance abuse started as a way of experimenting and having fun. However, they ended up addicted to them. The interviewed participants had this to say:

We started using substances such as marijuana to find out if it was true that it boosts one's mathematical competence. We continued experimenting with it until it was not easy to stay without it. Participant No:3, 17 years old, Form 2, from school A.

I was eager to know how it feels when I'm drunk. In fact, I used marijuana because I wanted to experience the fun it was associated with. Focus group 1, Participant No: 5, 18 years old, form 4, from school A.

In addition to the above, the findings from interviews and focus group discussions showed that most adolescents abuse substances because they are deceived or misled by the media such as television, magazines, and newspapers which sometimes portray substances as energy boosters for better performances for most popular superstars and artists. The results of the study showed that most celebrities are portrayed as the drug takes and these become role models to the adolescents. Similarly, the social media including like Facebook and Whatsapp were also wrongly used for information sharing on substances among youth. To this end, the participants had this to say:

Watching television had a great influence on my alcohol intake because it uses artists and superstars to advertise various types of alcohol. Great superstars, soccer stars, performing artists and other celebrities are closely portrayed as succeeding due to the influence of drugs and other substances.

The social media has contributed immensely in my life to abuse substance such as alcohol, thinners, glue, benzene, cocaine, and marijuana because I could access a lot of information from the internet about different substances and drugs which I shared with my friends through WhatsApp and Facebook. We were then tempted to experiment with these drugs, and we enjoyed them. You do not need a lot of money to keep yourself up. Focus group 4, participant No: 4, 17 years old, from school D.

7. Conclusions

The study revealed that the behaviour of adolescent boys with conduct disorder is characterised by impulsivity and defiant behaviour, particularly to any adult's advice. These findings confirm other prior studies which maintain that adolescents with conduct disorder, particularly the adolescent-onset type, are more rebellious and quick to act (Thomas & Kahn, 2014; Kahn, Frick, Youngstrom, Findling & Youngstrom, 2012; Moffitt & Caspi, 2006; Kroger, 2000). Similar findings were also established by Dandreaux and Frick (2009), who maintain that adolescents' rejection of adults' advice and their impulsivity make them experience some severe consequences including a poor relationship with good people including parents. Their impulsivity and inattentiveness also make them exhibit persistent criminal behaviour in adulthood (Moffitt & Caspi, 2006).

Zuckerman (2006) upholds that impulsivity among adolescents makes them engage in risk-taking behaviours such as drinking alcohol, gambling for money, fighting, cigarette smoking and may end up in trouble with the law enforcers. Kroger (2000) contends that adolescents reject their parental views at times because they form a strong relationship with peers and their views clash with those of adults. Hence, adolescents become rebellious to parents as they experiment with different things (Moffitt, 2006). Erikson (1968) upholds that the behaviour of adolescents predominantly describes adolescence stage as a time of identity crisis, or a turning point for the increased vulnerability which may also include the development of conduct disorder (Frick, 2012).

It emerged from the study that most adolescents with conduct disorder are characterised by callous-unemotional traits and narcissism. The study findings affirm Fanti (2014) who maintains that in most cases adolescents with elevated callous-unemotional traits show a low response to punishment cues and view aggression as a more acceptable means for obtaining goals. They are less fearful of the consequences of their behaviour and blame others for their actions as a means of attaining their identity (Frick et al., 2014). Fanti, Panayiotou, Lomdardo, and Kyranides (2016) contend that adolescents who are characterised by unemotional traits and narcissism are not easy to handle because they do not show guilt or remorse to the behaviour which they exhibit. They use aggression as their means to an end (Frick et al., 2014). In the same breath, Anderson (2015) revealed that adolescents who exhibit narcissism and callous-unemotional traits have a tendency to strive for peer conformity. This is due to low self-esteem (Moffitt, 2006). Anderson (2015) further upholds that adolescents of this calibre behave this way because they have a weak executive function caused by immaturity of their brain frontal lobes which are responsible for determining most aspects of learning, moral intelligent, abstract reasoning, judgement and strategizing.

The study revealed that the behaviour of adolescents with conduct disorder is characterised by sensation seeking and risk-taking behaviour. These findings agree with the study conducted in Cyprus by Fanti, Panayiotou,

Londardo, and Kyranides (2016) which revealed that adolescents with conduct disorder seek for impression or fun while also engaging in crime-related activities that put them at risk of being incarcerated. Zuckerman (1995) also noted that adolescents who have their brain not fully developed, particularly the frontal lobe act without thinking, fail to navigate social and emotional situations. Hence, they engage in different risky activities with the intention of deriving pleasure but end up in trouble.

The study also revealed that most adolescents end up developing conduct disorder because they were exposed to hard situations including low socioeconomic status, peer pressure, living in broken families, being exposed to improper parental styles and poor supervision. This was also found by Siegel and Senna (1988) who noted that broken homes or single parenthood are strong determinants of conduct disorder because a child is initially socialised at home and taught appropriate behaviour patterns within a complete family circle. That is, if a child is raised by a single parent, it is likely that that parent might not adequately do parenting completely as two parents can do to complement one another. In their study, they noted that the absence of the father or mother figure in the home has a bearing in the development of a child's behaviour. Similar findings were established by Banda (2011) in Zambia who revealed that adolescents who were categorised as street children and engaging in crime were mostly products of bad experiences related to socio-economic status, familial and psychological factors. These children were deprived of parental love and care. Hence, they opted for living away from family settings, but became a street community and engaged in crime for a living. The study by James and Mnene (2017) also noted that hardship such as rejection; sadness and hopelessness alter the individual psychological functioning resulting in the development of conduct disorder.

In this study, the researchers concluded that adolescent boys with conduct disorder also experience challenges in life such as failure to resist negative peer pressure, being labelled and stigmatised, poor relationships with parents poor monitoring by parents and poor choice of friends leading to depression, anxiety, substance abuse and criminal activities which put their lives in danger of being incarcerated. The study also concluded that adolescents abuse drugs and other substances mainly because they want to experience the fun associated with drugs and substances. It was also found out that at times they abuse substances in order to relieve the stress encountered due to the poor parental relationship and poor communication. Hence, substance abuse becomes their solace for refuge. Furthermore, the study also concluded that the media; including social media like Facebook, Twitter and Whatsapp has its role misleading the adolescents to abuse substances. The media such as televisions and magazines sometimes portray superstars and other celebrities as energised by the consumption of drugs and other substances. It was also concluded that adolescents lack knowledge of information about the consequences of substance abuse. Hence, they abuse substances.

8. Recommendations

Based on the findings of the study, the following recommendations were made to obviate the situation.

1. Communication between the child and the parent is critical in a home environment. That is, parents should open communication doors whereby issues that are challenging to the adolescents are communicated and discussed positively in a home environment and this should be followed by reinforcement for acceptable behaviour, positive guidance, and support for positive behaviour. Labelling and stigmatisation should be avoided by all means.
2. It is also recommended that adults should try to identify developmental, psychological and social challenges children go through and try to address them at an early.
3. Parents should monitor the movements of their adolescent children since these are challenged by developmental hormones. Choice of friends should also be monitored since some friends are already in a crisis.
4. Both teachers and parents need to create a strong bond with the adolescents in order to mitigate any antisocial behaviour.

5. Parents should offer parental guidance even on films watched by their children, in order for them to be aware of the propaganda used by different social media houses in merchandising some products. Parents should educate their children that there is a difference between acted life and real lifestyles.
6. The curriculum developers should include issues of development and life skill education that can help adolescents to make informed decisions on challenges they encounter at this stage of development.
7. Schools should introduce more extra-curricular activities during school hours in order to offer a wide range of learning opportunities to the learners so that they can participate actively in constructive skill-building activities such as sports, athletics, drama, public speaking, journalism, art and craft, music, computer games, etc.
8. The Ministry of Education and Training should consider employing full-time guidance and counselling teachers since contemporary schools are faced with many antisocial and developmental challenges including conduct disorder among students.
9. In addition to that, the Ministry of education and Training should consider work shopping teachers on positive discipline in order to inculcate values of good citizenship.

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The Major and Minor Errors in the Translations of Thesis Abstracts

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Abstract

A thesis abstract is an essential part of a thesis since it represents the content of the thesis. In Indonesia, where the abstracts need to be translated into English, a number of translation errors may occur. This study aims at analysing the translation errors in the thesis abstracts and classify the errors into major and minor errors. The data were collected from the undergraduate theses of the Communication Science Department students, Faculty of Social and Political Sciences, Universitas Airlangga. The results show a total of 128 errors, where 79 of them (61.7%) are major errors. In the major error types, the most frequent error type is the Experientially Inaccurate translation (21.1%), followed by the Logically Inaccurate translation (11.7%), and the Interpersonally Inadequate translation (11.7%). Meanwhile, the minor errors only comprise 38.3% (49 errors) of the total errors. The errors include the Minor Grammatical errors (36.7%) and Spelling errors (1.6%). Considering these numbers of errors, it is necessary to pay more attention to the translation of the thesis abstracts because they reflect the content of the theses.

Keywords: Major Error, Minor Error, Thesis, Translation Error.

1. Introduction

An abstract of an academic text is the first thing that readers refer to when they are seeking particular references for their studies. This is because an abstract provides a summary of the whole text. In the abstract, the author wrote a statement of the problem or issue, research method and design, major findings, and the significance of their study, and the conclusion (Campbell, 2007). All of those elements should be written in less than 400 words. Therefore, the author should consider an efficient way to convey his/her ideas to the readers.

There are some non-English academic papers that provide English translation abstracts found in Indonesian Universities. It may be intended for readers who are not Indonesian speakers. For instance, by presenting an undergraduate thesis abstract in Indonesian and in English, it will be possible to obtain a larger number of readers. Producing abstracts both in Indonesian and English definitely requires the students to perform a translation process. The translation goal is to facilitate people to understand the message that is available in the language that is not understood. Therefore, a translation process is needed to produce a bilingual abstract.

Newmark defined translation as transferring the message or meaning of utterances or other sources into the target language (1988). Meanwhile, Wilss (1982) stated that equivalence from source text should be as close to the target text as possible by giving an understanding of its source text's content and style. In addition, Catford (1965) stated when a text of one language is substituted into another language, there is a translation process. From the explanation above, it can be concluded that the message should be carried equivalently in a process of rendering text from Indonesian to English, otherwise some message will not be delivered successfully and contributed to a translation error.

Some studies had been conducted by another scholar regarding translation error. The first related studies produced by an unpublished thesis by Petra Christian University student. Susilowati (2006) analysed translation errors in the English-translated abstracts of the management department in her university. She found that the errors that the content errors and the grammatical errors have the same frequency. A similar study had also been conducted by Sari (2006). She conducted a study of the English translation of Ibis Accor hotel Brochures. She took eight brochures of the Ibis Accor Hotel as the main data and found that most mistakes are grammatical problems, choice of word, and equivalency (Sari, 2006).

Another study related to the writer's study was conducted by Fitriyah (2015). She analyzed the linguistic and translation errors in Indonesian-English Translation of Exhibit Labels Displayed in Mpu Tantular Museum. She took 12 exhibit labels in three different zones in the museum. She found 121 binary errors and 21 non-binary errors. Another study had also been done by Purwandini (2015). She analysed the translation errors of monument inscriptions in Surabaya's old building. She found that the errors most frequently occurred are the missing of periods and commas, and those might be confusing for the readers.

In this study, we are interested in analysing the translation errors in the translation of the Indonesian thesis abstracts into English. This study will provide an analysis of the errors based on their broad classifications into major and minor types of errors. These broad types will then be classified further to obtain more detailed types of errors.

2. The Concept of Translation Errors

A translator should have an adequate understanding of the process of translation. According to Pym (1992), lack of knowledge or reckless action in translation can contribute to the occurrence of translation error. In addition, Nida & Taber (1982) defined a translation error as an 'error in transferring ideas.' Consequently, when a student consciously or unconsciously failed in transferring the message containing the idea, a translation error occurred.

In the translation process, the meaning or idea should be delivered well. In case they are not delivered, well and creates a different situation in the product (translated source language) then it is considered as a translation error. A translation error is a failure to carry out the instructions implied in the translation brief (Nord, 1997, p. 75). Students' failure in transferring the instruction from Indonesian to English is considered as a translation error. Nord divided the errors into pragmatic, cultural, linguistic, and text-specific errors.

An analysis of translation errors is needed to observe the errors occur in the undergraduate thesis' abstracts. The concept of translation errors used in this study is the one developed by Kim based on NAATI (National Authority of Accreditation for Translators and Interpreters) assessment criteria for translation tests. Kim developed the concept by focusing on the meaning-oriented assessment. In Kim's meaning-oriented assessment criteria, translation errors are divided into two, and they are Major Errors and Minor Errors. Both Major Errors and Minor Errors may influence the meaning in the target language of translation.

Kim (2009) categorized the major errors further into seven types. First, the Experientially Inaccurate translation error occurs when the full source text is failed to be delivered accurately to the target text by the translator (Kim, 2009, p. 137). Second, the Experientially Unnatural Translation error is likely understood by the reader. The reader still grabs the meaning regardless of the unacceptable word-to-word translation (Kim, 2009, p. 138). Third, the Logically Inaccurate Translation error occurs when the translator failed in transferring the logical link of a clause in the source text (Indonesian) into the target text (English) (Kim, 2009, p. 139). Fourth, the Logically Justifiable Translation Shift occurs when the translator decides to change a sentence into two sentences in the Target text (Kim, 2009, p. 140). In shifting a sentence into two sentences, the logico-semantic relation with the source text must not be changed in order to keep the sentence understandable and avoid too complicated structure in the target text. Fifth, the Interpersonally Inaccurate Translation error deals with lexical misinterpretation (Kim, 2009, p. 141). A wrong choice of lexical items can cause different perception. Sixth, the Interpersonally Inadequate Translation error occurs when the Target language cannot be back-translated into the Source language, otherwise, the meaning may not be carried the same way (Kim, 2009, p. 142). Seventh, the Textually inaccurate translation deals with the cohesion and coherence issue (Kim, 2009, p. 142). These issues should also be considered so that each sentence will elaborate nicely. In addition, failure in this type of

translation error might be quite confusing, so the reader should re-read the previous section to finally be able to comprehend the text.

For the minor errors, they are only classified into spelling errors and minor grammatical errors (Kim, 2009, p. 136). This type of translation errors has a minor contribution in influencing the meaning. Many occurrences found in the English-translated abstract were minor errors, specifically grammatical errors.

3. Method

This study used a qualitative approach which is suitable for non-numerical data. Dornyei mentioned four main principles of a qualitative study they are language-based analysis, iterative process, using subjective intuition, and employing a formalized analytical procedure to establish data patterns (Dornyei, 2007). Since this study aims to analyze the translation patterns of abstracts, which are in the form of text, the qualitative approach is suitable for this study as the data presented in words rather than numbers.

The data were collected from Airlangga University's Library website that can be accessed from the web address <http://fulltext.lib.unair.ac.id/>. From this internet address, we chose "skripsi," "Fakultas Ilmu Sosial dan Ilmu Politik," "Ilmu Komunikasi," and batch "2015". The result was fifty-three theses with bilingual abstracts out of sixty abstracts. The other seven abstracts are only available in monolingual (Indonesian).

In order to limit the data, we used a simple random sampling technique and chose 20 abstracts as the representative of the population. Using the simple random sampling technique with a lottery system, each member of the population has the same chance to be chosen as the sample.

In analysing the data, we followed these steps. First, the printed data of bilingual abstracts were highlighted manually to mark the translation errors. Second, the errors found were categorized and then calculated to find the most frequent occurrences. Fourth, the data were tabulated. Fifth, we interpreted the data, and finally, we drew conclusions from the findings.

4. Results

The findings of this study show that there are 128 errors occurred in the thesis abstracts. From this number, 79 of them can be categorized as major errors, and 49 of them are included as minor errors. Table 1 shows the numbers and the percentages.

Table 1. Total of Errors

Types of Errors	Occurrences	Percentages
Major Errors	79	61.7
Minor Errors	49	38.3
Total	128	100

4.1 Major Errors

As mentioned earlier, the major type of errors can further be classified into seven types. Consequently, to have a clearer picture of the errors, we also classify the errors into these seven types. The tabulation of these major error types is presented in Table 2.

Table 2. Results of Major Errors

No	Types of Major Errors	Occurrences	Percentages
1	Experientially Inaccurate	27	21.1%
2	Experientially Unnatural	9	7%
3	Logically Inaccurate	15	11.7%
4	Logically Justifiable Shift	2	1.6%
5	Interpersonally Inaccurate	15	11.7%
6	Interpersonally Inadequate	11	8.6%
7	Textually Inaccurate	0	0%
	Total	79	61.7%

As shown in Table 2, the Experientially Inaccurate translation error ranked as the most frequent type of major errors. This type of errors mostly occurred due to the lack of knowledge triggering miss-translation and untranslated word or sentence. This may contribute to the different interpretation and meaning of the sentence. This failure in the translation process consequently influences non-Indonesian speaker's understanding; in other words, they might not grab the implied message appropriately.

An Experientially Inaccurate translation error occurs when the full source text is failed to be delivered accurately to the target text by the translator (Kim, 2009, p. 137). In the English translated abstract produced by the students, this study found some inaccuracy translation from the source text into the target text. This study found some missing information in the English translated abstracts because some words were not translated. Thus, it reflects that the English translated abstract failed to carry an accurate message existed in the source text (See Example 1).

Example 1:

Indonesian (ST)	: Hasil penelitian ini menunjukkan bahwa komunikasi antara perawat terhadap pasien di IGD RSU Jati Husada Karanganyar
English (TT)	: The results of this study suggest that communication nurses toward patient in Jati Husada Hospital

Example 1 shows that an error occurs when "IGD RSU Jati Husada Karanganyar" was not translated accurately. It was translated into "Jati Husada Hospital. However, it was clear that the research done by the student was only focused on a certain place which is the "IGD" or "Emergency Room" not the whole hospital as it is stated in the target text. The idea of a specific place such as the Emergency Room was not successfully rendered into the target text which has become too general, i.e., a "Hospital." Again, the equivalent message of the text was not successfully rendered. Therefore, this sentence is considered having an error as the previous example.

The second highest error type is the Interpersonally Inaccurate translation. The Interpersonally Inaccurate Translation deals with lexical misinterpretation (Kim, 2009). In the English-translated abstracts being analysed, the number of this type of errors is quite big. There are inaccurate lexical choices which contribute to the whole different meaning in the target text. Meanwhile, some others show a misuse of lexical items. This study found 15 errors for in this type of errors. One of the examples is presented in Example 2:

Example 2:

Indonesian (ST)	: Penelitian ini menggunakan teknik pengumpulan data Focus Group Discussion (FGD) yang melibatkan 8 orang informan dari komunitas pecinta Korea yang berbeda di Surabaya.
English (TT)	: Participants were taken as much as 8 informants from different affiliations of Korean Lovers Community in Surabaya.

It shows an error in expressing the quantity of a countable noun (in this case, the informant). The word “yang melibatkan” in the source text was translated into “as much as.” Apart from the error of inaccuracy in the translating process due to the unequal meaning, this sentence had chosen the wrong translation to express the quantity of a noun. The lexical choice is also influenced by the grammar as it can be seen here. Informant as a countable noun should also be preceded by the countable expression of quantity. The word “as much as” supposed to explain non-countable noun (Azar, 2010).

Together with the Interpersonally Inaccurate translation, the Logically inaccurate translation ranked as the second highest. This study found that the translator seemed to be confused by their noun phrase or clause sentence in the source text and ended up producing errors. A logical Inaccurate Translation error occurs when the translator failed in transferring the logical link of a clause in the Indonesian text into English. A number of errors occurred in the translated abstract because of failure in delivering the relationship between clauses. This study found 15 errors in this type of errors. Below is the example of Logical Inaccurate Translation:

Example 3:

Indonesian (ST)	: <i>Penelitian ini fokus pada program relationship marketing Primagama Magetan untuk mempertahankan loyalitas konsumen,</i>
English (TT)	: <i>This research focuses on the relationship between the marketing program of Primagama Magetan and its ability to maintain the consumer’s loyalty.</i>

As it can be seen in the text above, the translator’s intention was to explain that Primagama Magetan has built a program, namely the relationship marketing in order to maintain the consumer’s loyalty. It can be seen that the translator had failed in relating the clause one another and ended up causing misinterpretation in the target text. The meaning in the source text had shifted into the relationship between the marketing program and consumer’s loyalty. Therefore, it is considered an error called Logical Inaccurate Translation.

The third error type is the Interpersonally Inadequate translation. The interpersonally Inadequate translation deals with lexical items. In some cases, the lexical choice is mostly affected by the Indonesian language. We believed that besides the students’ own knowledge, the current translation software can help the students to find the appropriate words. Therefore, the number of this type of error is relatively small. The Interpersonally Inadequate Translation occurs when the Target language cannot be back-translated into the Source language, so the meaning may not be carried the same way (Kim, 2009). This study found 11 errors in this type of errors. This is one of the examples:

Example 4:

Indonesian (ST)	: <i>Mereka memenangkan penghargaan smart zone dari pusat atas pemenuhan standart mutu pelayanan.</i>
English (TT)	: <i>They won the “smartzone” award for the fulfillment of the standard of service quality.</i>

The information stated in the source text is not delivered successfully. “Penghargaan smart zone dari pusat” should be translated as ‘a smart zone award from the head office.’ As it is stated in the target text, there is an omitted information. The target text omitted the information of the source of the smart zone award. Consequently, the omitted information in the target text contributes a different result if the target text is translated into the source text as a back-translation process.

Next, for the fourth most frequent type of error is the Experientially Unnatural Translation which can be found in 7% of the abstracts. The Experientially Unnatural Translation occurs when the readers of the translated text still comprehend the idea or meaning regardless of the unacceptable word-to-word translation. In some cases of error found in the translated abstracts, the naturalness of target text has become the point. Some sentences in the target text appear to be preserving the Indonesian’s structure which is different from the English language. This study found 9 errors throughout the abstracts. One of the examples is in example 5.

Example 5:

- Indonesian (ST) : *Hal ini disebabkan karena* saat ini media sosial Twitter telah menjadi alat untuk melakukan sosialisasi politik bagi para politisi yang aktif menggunakan Twitter
- English (TT) : *It is caused due to* the current social media Twitter has been a great tool for political socialization for politicians who actively use social media Twitter

In this sentence, "hal ini disebabkan karena" which means "this is due to" was translated into "it is caused due to." The reader may still understand this translation, although the translation is rather lengthy. The words "hal ini disebabkan" were translated into "it is caused," while the word "karena" was translated into "due to." However, it seems to be less natural in the English language to have both of those phrases. By keeping the structure of the target text as close as possible to the source text, linguistic interference was unavoidably occurred (Nord, 1997, p. 67). Using the term "by" will let the translator input the agent of the verb's action (Azar, 2010). Therefore, when "by" follows "it is caused", it will be enough to deliver the message of "disebabkan karena", so there is the agent of the action and the translator can discard the word "due to".

The Logically Justifiable Translation Shift occurs when the translator decides to change a sentence into two sentences in the Target text (Kim, 2009, p. 140). This study found two errors in this type of error. Below in one of the examples of logically justifiable translation shift found in the student's abstracts:

Example 6:

- Indonesian (ST) : *Untuk mendeskripsikan representasi identitas gay dalam film "Cinta yang Dirahasiakan," peneliti menggunakan metode semiotik John Fiske yang terbagi dalam tiga level analisis yaitu level realitas, representasi dan ideologi.*
- English (TT) : (1) *The focus of this research is gay identity in the "Cinta yang Dirahasiakan" movie as its objective research. (2) The representation of gay identity in this movie is described using a semiotics method by John Fiske, which divide into three levels of analysis; the level of reality, representation, and ideology.*

It can be seen that the source text is a sentence is translated into two sentences in the target language. Kim defined that this is used to lessen the issue of too complicated structure in the target text, yet the meaning should also be carried the same way (Kim, 2009, p. 140). The target text was translated into two sentences to make it less complicated. But in this example, some of the information that did not exist in the source text and some of them exist only in the source text, so it can be considered as an error. Therefore, this sentence disobeyed the translation process which is supposed to carry the message contained in the source text.

The number of Logically Justifiable Translation Shift is reasonably small since the abstracts served several main points represented by some individual sentences. Therefore, the chance of justifying text is rare. Related to the coherence of a text, the textually inaccurate translation error is the only error type that is not found in the data, due to the fact that each sentence in an abstract presents its own message.

4.2 Minor Errors

The minor error type has a minor contribution in influencing the meaning. Many occurrences found in the English-translated abstracts were minor errors, specifically grammatical errors. Few students translated their Indonesian abstract without considering the grammatical rules. However, most of them are still recognizable and deliver the meaning. The recapitulation of these minor errors can be seen in Table 3.

Table 3. Results of Minor Errors

No	Types of Minor Errors	Occurrences	Percentages
1	Spelling errors	2	1.6%
2	Minor Grammatical errors	47	36.7%
	Total	49	38.3%

Meanwhile, most of the errors found in the minor error type are minor grammatical errors. As for the most occurrences errors, students performed minor grammatical error due to failure in changing the passive form, plural-singular form, and wrong subject-verb agreement. Regarding the student's most frequent errors which are the minor grammatical errors, it has been mentioned by Nord (1997) that grammatical errors would occur more than the other types of errors. Meanwhile, there are only few spelling errors, because a general computer program, such as Microsoft Word, already provides the spelling checker with a quite good quality.

In the minor grammatical errors, the translation could still be successful in delivering the meaning but failed in customizing the grammatical rules. In our data, the most common grammatical errors are the passive voice patterns. However, readers might still grab the meaning by recognizing the word which uses the past participle form. This study found 47 errors in this type of errors. The following is one of the examples:

Example 7:

Indonesian (ST)	: <i>isu RUU PILKADA dipengaruhi oleh minat dan arus politik masing-masing informan.</i>
English (TT)	: <i>the issue of RUU PILKADA informant influenced by the interests and political currents</i>

The word "dipengaruhi" was translated into "influenced" by the translator, which is basically right in case of word-to-word translation. However, in the translation process, that word should also follow the rules. Passive voice is built from three parts, and the first is the auxiliary (in whatever tenses) + verb in past participle + by (Azar, 2010). In this case, the word "by" is needed to complete the action by explaining the agent. One of the formulas has already been done by the translator which is adding "by" following the word "influence." Therefore, it means that those words were actually aiming at the passive voice. It can be seen that the translator directly translated the words "dipengaruhi oleh" into "influenced by" without considering the target language's grammar. Moreover, it is considered correct in Indonesian to express the passive voice without the use of an auxiliary, but it is unnatural or even ungrammatical to do so in the target text.

The last minor error is spelling. There are only two cases of this type of error which was actually the same error, but the translator did it twice for the whole text. One of the examples in this error is presented in Example 8.

Example 8:

Indonesian (ST)	: <i>Kekuatan visual yang ditampilkan melalui selebriti Instagram dimanfaatkan untuk menciptakan interaktifitas dengan tujuan promosi.</i>
English (TT)	: <i>Visual power that showed by Celebrity-Instagram (Selebgram) can be used to create an interaction with customer which used to promote the product.</i>

Example 8 shows that the abbreviation of celebrity-Instagram was translated into "selebgram." It can be seen that the abbreviation was formulated from "seleb" and "gram" from Indonesian text selebriti and instagram. Since "selebriti instagram" has been translated into "Celebrity-Instagram" which was supposed to be "Instagram- Celebrity, therefore the abbreviation should also be in English form. The pronunciation of celebrity in English is quite similar to Indonesian celebrity, but it has different spelling. The word "seleb" in the target text appeared to be a spelling error.

5. Conclusion

From the 20 abstracts analysed, this study found that both major and minor errors occurred. From the 128 errors, 61.7% of them are major errors, while only 38.3% of them are minor errors. In the major error types, the Experiencing Inaccurate translation becomes the most frequent one, i.e., 27 occurrences. On the other hand, for the minor error types, the most frequent one is the grammatical errors. This type is, in fact, contains a big number of errors, i.e., 47 occurrences. This can be due to the fact that English grammar is different in many aspects from the Indonesian grammar. Consequently, there is a big number of grammatical errors found in the thesis abstracts. Considering these findings, the students of these thesis abstracts need to pay closer attention when translating their Indonesian thesis abstracts into the English language, so that the number of errors can be minimized.

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Educational Equality among Social Classes: A Prerequisite for Social Reconstruction in Nigeria Multi-Ethnic Society

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Abstract

Education is and will continue to be a major determinant of social mobility in Nigeria with a deep attachment to paper qualifications. It determines social class and breaks barriers of all kind of divides in the society. Education largely and increasingly determines an individual's job choice and income. It has more impact than any other factor, possibly excepting wealth, on whether one participates in politics, what one believes politically, and how much political influence one has. Social change and for multi-ethnic society to strive for meaningful and sustained development of the society, educational administrators, planners and all necessary institutions saddle with responsibilities of designing the curriculum in Nigeria are to brace themselves for a huge task of social reconstruction that will harmonized the ethnic divides and alley fears of inequality as a source of disharmony in the society. Education is the arena in which countries has sought to overcome racial domination and class hierarchy, reduce poverty, to turn immigrants into citizens, to turn children into responsible and active citizens, to create and maintain democracy, also demonstrates ways in which class biases are closely entwined with racial and ethnic challenges that reduce progress and development in Nigeria among ethnic groups as a matter of fact, is the best solutions to all challenges in our society.

Keywords: Educational Equality, Social Class, Social Reconstruction, Multi-Ethnic Society

Introduction

A major prerequisite for social reconstruction in Nigeria multi-ethnic society and social class is educational equality. The ideal of educational equality is fundamentally grounded in the egalitarian principle that social and institutional arrangements should be designed to give equal consideration to all. Educational institutions should, therefore, enact the value of equal concern to enhance social mobility in the society. Educational enterprise is a prerequisite for major human development. Strategically, it is at the centre of all that is there to impact positively on societies. Education helps people to get more out of life as it increases their knowledge and understanding of the world around them. Education enables citizens both young and old to acquire knowledge, skills, habits, value, and attitude that will help them become useful members of the society and develop an appreciation of their cultural heritage, social class of others and create a synergy where possible to solve societal challenges.

Education is an important instrument of change in modern societies, with education, an individual or group of individuals can rise towards most valued position and rewards in the society. Education has become a Prerequisite for employment in any bureaucratic organization, without education one is likely to remain in the same

low position because most jobs in the present world require at least an ability to read and write. Without satisfactory formal education, well-paid jobs, good social services, and privileges are rare in modern societies.

Social justice, good governance, open government, community-driven development, and transparency are prerequisite towards making education equitable to Nigerian citizens. This is in support of the directive principles of government, as contained in the Nigerian constitution that government is to give education to all its citizens as a basic requirement of governance. It means that education is no longer a privilege of the preserved few but a compulsory provision by the government to all citizens.

Nigeria is a multi-ethnic society with over two hundred nationalities cut across the six geopolitical zones. Before the amalgamation of 1914, a string of dynastic states, including the earliest Hausa states, stretched across the sub-Saharan Savannah from the Western regions to Central Sudan. The most powerful of these states were the Kanem-Bornu Empire, the Kingdom of Nri, Kwararafa Kingdom and Arochukwu people of the Igbo, the Ife Kingdom under the Ooni of Ife, the Alaafins of Oyo, who once controlled a large number of other Yoruba and non-Yoruba city states Dirk (2004).

The emergence of social class is not new before the coming of the colonial masters, where farming, pasturing and hunting are the main occupations of the people, but it was exacerbated during and after the colonial era where white collar jobs were considered elitist because its warrant the acquiring of certain skills in reading, writing, and interpretation. Education for various reasons was a term to be very important as a symbol of social class and social mobility.

However, there have been various interventions and policies from the colonial and post-colonial era to provide education for all and to give the necessary infrastructures and manpower that will see to the needs of the people so that they can be of use to themselves and the society after acquiring the western education. From the UPE days, national rolling plans of the military regimes, to when the National Policy on Education was established and the recent developments of Education for All (EFA), Vision 20-20-20, Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs).

Today Nigeria is a nation-state with thirty-six states and a federal capital territory; these states have seven hundred and seventy-four local governments Areas. Being a religious state, Christianity, Islam and various traditional religions are widely practiced in all parts of the country. Despite the belief in religion, cultural practices are very popular among its citizens.

In a multi-ethnic society, education is a bridge builder, and it helps people to get out of life's many challenges as it increases the knowledge and understanding of the world around them; this has the capacity to effect changes in behaviours and enhance the desired reconstruction that will shape Nigeria. Utmost of the argument about equality in education is focused on how to equalize access to and participation within different levels of formal education for different social groups which will eliminate the divide among various ethnic groups in Nigeria (Hanafin & Lynch, 2002). While balancing access and participation are key educational equality objectives, it desired a more all-inclusive and cohesive approach to the accomplishment of equality in education reconstruction and to make schools truly egalitarian institutions where the desired skills will be obtained for the good of the society and personal fulfillment.

Conceptual Clarifications

Nigeria being a multi-ethnic society will need to do more than putting education in the first line change of the budget in order to serve its purposes. To achieve social reconstruction through educational equity is an impressive and important vision; this can be based on two issues that are quintessentially critical which are inclusion and fairness. Inclusion in the sense that all section of the social classes is carried along in all aspects of planning, execution, and evaluation, none is to be left behind as the new campaign slogan of SDGs, and there should be equitable in the distribution of educational opportunities and facilities. Educational equality indicates

that everyone should have the same opportunities in education. No one should be discriminated against because of social background, race, region, gender, religion or age (Robeyns, 2006).

The glossary of Education Reform, 2016 term equality as it encompasses a wide variety of educational models, programmes, and strategies that may be considered fair, but not necessarily equal. It has been said that "equity is the process; equality is the outcome," given that equity – what is fair and just – may not, in the process of educating students, reflect strict equality what is applied, allocated or distributed equally. <http://edglossary.org/equity/>.

Equality is a concept of a long evolution in education. It refers to the way an educational good is distributed among the members of a population. One well-accepted typology of educational equality gives it four dimensions: equality of access (enrolment), equality of attainment (also called survival), equality of output (or learning achievement) and equality of outcome or returning to school (Farrell, 2003). Martinez, (2002) added the fifth dimension of equality of treatment (or access to a good quality of teachers, materials and overall educational experience).

Gustein (2005) argue that equality requires that public institutions, recognizing present and past inequities, contribute to rectifying the economic and social gaps that give rise to it. How these are handled and deal, with reducing the social disparity among social class thereby enhancing social reconstruction. This principle gives us a powerful reason to foster the talents of people who might develop the wealth and technology that can improve the lives of the severely cognitively disabled.

Social class has been used as a selective filter for various professions when sociologists talk of social class; they refer to a group of individuals who occupy a similar position in the economic system of production. Within that system, occupation is very important because it provides financial rewards stability and benefits like healthcare, good home, insurance of life and properties. <http://udel.edu/~marks/What%20social%20class.htm>.

Social reconstruction is a philosophy focused on Achieving social change. As a practice, it strives to achieve social justice and equity by altering the various social systems upon which society rests. It is based upon two major understanding; first, that society tends to develop systems that marginalize and oppress others and thus need to change, and second, that achieving this change requires both creating a system that serves as a change agent and is open to changing its own purposes and structures as the social contexts in which it exists evolve. https://www.academia.edu/1957998/Social_Reconstruction_naturally.

A social reconstruction is an educational philosophy that emphasizes the educational institution as an environment for implementing social change and challenging social inequalities. The curriculum focuses on students experience and taking a social action on real problems, such as violence, hunger, international terrorism, inflation, and inequality.

http://media.tcc.fl.edu/webcourses/ctl/Developing_Your_Teaching_Philosophy/Developing_Your_Teaching_Philosophy11.htm#

Social reconstruction is a philosophy that emphasizes the addressing of social questions and a quest to create a better society and worldwide democracy. Reconstruction educators focus on a curriculum that highlights social reform as the aim of education. Paulo Fiere, George Counts, Oregon state. edu/instruction/ed416/PP3.html.

Most of the discussion about equality in education is focused on how to equalize access to and participation within different levels of formal education for different social groups. While equalizing access and participation are important, social reconstruction concepts like human rights, liberty, citizenship, social justice, patriotism and the likes must feature in the school curriculum if we need a more holistic and integrated approach to the achievement of equality in education if we are to make schools truly egalitarian institutions (Hanafin & Lynch, 2002).

This paper will adopt principled framework theory; this framework employs a version of liberal egalitarianism and draws primarily on the capability approach, as developed by (Sen, 1992, p. 44 and Nussbaum, 2000, p. 90). According to the capability approach, social and institutional arrangements should enact the value of equal concern by aiming at equalizing people's 'capability to function,' i.e., their real opportunities for well-being and living good lives. It is through the concepts of capabilities and real opportunities for functioning that they can value 'beings' and 'doings,' such as being educated or having a rewarding job. The capability approach helps substantially in conceptualizing educational equality by focusing on the fundamental functioning promoted by education, that are essential prerequisites for equal participation in society. On this view, educational equality consists of equal effective opportunities and access to this basic functioning. This framework aims at providing a justified answer to the specific demand of equality in education for social reconstruction in Nigeria multi-ethnic society. Education, both in terms of formal schooling and informal learning, is central to the capability approach. The approach emphasizes specifically the contribution that the capability to be educated makes for the formation and expansion of other capabilities. In Sen's account, equality has to be sought primarily in these basic capabilities, which constitute areas of specific concern for egalitarians. The capability to be educated is therefore of specific interest for egalitarians. The distinctive contribution of the approach is in identifying education as essential to well-being and among the primary concerns of equality.

Two fundamental and interrelated considerations follow. The first concerns the essential role of education both in the sense of meeting a basic need to educate and for the promotion and expansion of other capabilities. As Nussbaum argues, the exercise of certain functioning, like that of play and imagination, is particularly important during childhood in order to form the future mature capability (Nussbaum, 2000, p. 90). In this first facet, therefore, being educated responds to some essential basic needs of human beings, this, if unmet, can cause substantial harm.

Education promotes the achievement of performance that is constitutive of one's well-being, while also providing the resources for the enactment of important aspects of educational agency, thus enhancing individuals' effectiveness in his endeavour in the society. Given the complex interrelation of individuals with the society they inhabit, forms of civic and economic participation play an important role in determining one's well-being, while providing the basic structure for the exercise of effective participation.

Social Structure, Class Delineation in Nigeria before Colonialism

Nigeria was a communal society before the advent of colonialism to its shores (Aluko, 2002). The family institution was closely knit and was organised on kinship and lineage systems. Marriage was more on the basis of polygamy as most Nigerian societies were patriarchal in nature and thus the male gender had the pre-eminence in matters of lineage and authority in the family and political structures. Politically, Nigeria was organised with an absolute monarchy in the North, a monarchical constitutional system in the West and a representative and village democracy in the East. The social class of that period in the three areas looked almost alike with an exception to the political structure in the East. They all had a paramount ruler at the apex of the class structure or chiefs, followed by commoners and then at the lowest rung of the social ladder were the slaves. It was only the Igbo social class structure that had a caste system at the bottom of the social ladder. However, the pre-colonial political structures in place were effective and efficient. Aluko (2002) shared this view when he contended that it was the effective political administration in place in Nigeria that prompted the British colonialists to make use of these political structures through the indirect rule system, where local chieftains were used to administer their territories on behalf of the colonial overlords.

Economically, the Nigerian society, like every other pre-colonial African society, was known for 3 main occupations namely: hunting and gathering, pastoralist and agriculture including fishing and horticultural activities (Aluko, 2002). As Ola-Aluko argues, most goods and services produced at this time were also consumed by the respective families. The family group was a workgroup and also participated in economic activities fused with its traditional reproductive activities and regulated by familial values. In the area of religion, the Nigerian society before colonialism was deeply rooted in polytheism. The Nigerian religious institution was a picture of a syncretism belief system that revered different deities and gods. The people believed these deities

would protect them from harm or destruction and also give them prosperity, Ola-Aluko (2002). Education was largely informal and was carried out in the family and the community with dire punishments meted out on anti-social behaviours exhibited by children, youths or young adults and citizens. Besides, education was carried out by parents, certain social institutions like age-grade groups, the family, tribal/lineage associations and others. And educational activities were done more or less within the household. There was no separation of the school from home (Aluko, 2002).

Impact of Colonialism on the Nigerian Social Structure

Colonialism succeeded in changing the face of the Nigerian social structure, replacing age-long practices, norms, and values with the mores and practices of the colonialists. Since the effect of the colonial enterprise was sweeping and invasive, it touched on the various strands of the lives and experiences of Nigerians, and other African societies.

The introduction of coins and monetization of business transaction and rewards: Before colonialism, trade and economic activities were carried out either as barter or with the use of earlier forms of money like cowries or ivories. Colonialism changed all that. The system, with the introduction of industrial capitalism into the African economic system, brought in the issue of money or coins. This also was to help the colonialists as they had to buy raw materials and goods from Africans to be shipped to their home countries to be used in their factories Aluko (2002).

Introduction of wage employment in place of communal work relations: Before colonialism, African people encouraged one another in communal social and worked relations where people exchanged goods as well as services. With the introduction of money, wage employment was introduced into the economic system, and the industrialisation of the economic system commenced. Introduction of a factory system: unlike the pre-colonial days, colonialism helped to introduce a factory system which thus began and deepened the era of wage employment, industrial capitalism, industrial relations and industrialisation (Fanon, 2001).

Introduction of formal education and school system: Africans had an existing informal educational structure before colonialism, but the colonial system required the integration of trained locals to run the British political and bureaucratic structures, thus the introduction of British education which just afforded Nigerians the ability to read, write and solve simple arithmetic. However, this laid a foundation for Nigeria's future educational system which is still mimetically of the British formal educational system. The legacies of the colonial education system include the adoption of English as the official and business language in Nigeria, the modeling of the country's educational system and structures after those of the British primary, secondary and tertiary institutions, among others (Dirks, 2004).

Introduction of urban centres: It was the colonialists that introduced the concept of Government Reserved Area (GRA) and city into the consciousness of the African people, Nigerians. These terms were not used by Nigerians before the advent of colonialism; and the effect of having urban centres led to rural-urban drift (Mamdani, 1976).

Class Formation in Nigeria

In this paragraph, the authors contend that colonialism engendered class consciousness in Nigerians and helped to create a class structure that favoured the "New Man." By new man, it means, a reformed, pro-Western and educated Nigerian. By introducing Western education, the colonial administration, and system guaranteed that more rewards and social mobility would go to graduates of its educational institutions. Therefore, the products of these institutions who were employed into the colonial administration saw themselves as a special breed as they now spoke the language, ate the food, wore the clothes, lived in the houses and generally learned and lived the ways of the white man (Dirks, 2004).

Thus the class structure in Nigeria was restructured and redrawn along occupational and educational lines. This created the upper class, middle class, and lower class. The Upper class which included very wealthy Nigerians

and employers of labour has a middle class or petit bourgeoisie that worked for the upper class or managed their business and economic interests for them or consisted of white-collar workers. The lower class was made up of blue-collar, artisanal, and crafts-related workers, mostly unskilled and semi-skilled labour. In addition, since the social and work relations had changed from a communal system to a wage-related system, fortunate Nigerians who got employment with the colonialists were treated as a special class. This, of course, prompted fellow Nigerians, to desire to get into the British employment. Consequently, this led to the abandonment of the hitherto existing work relations of master-journeyman relationship for wage employment. And with education and wage employment came social mobility where people had to leave their villages for towns and cities where they could find employment and improve their status, personal economy and standard of living (Fanon, 2001).

This meant that most Nigerian families had to live away from home, especially with most of them moving to newly established urban centres that had electricity and a growing infrastructural network. With the urban drift and wage employment on the increase, a new class of Nigerians emerged who were educated, middle-class and were exposed to the ways of the white man. Colonialism generated a class system and class relations in Nigeria through the instrumentality of education and the introduction of industrial capitalism in the country. The situation still persists today in Nigerian cities where urban dwellers still see themselves as belonging to higher social order and having a higher social status than rural dwellers that have the least access to educational and employment opportunities. This also prompts rural dwellers to see nothing good in their rural residences and forces them to drift to urban centres in search of the "golden fleece." (Fanon, 2001).

Meanwhile, since the "better life" is effectuated by the acquisition of education, more Nigerians desired and still desire to acquire good education so they can get good jobs, experience higher social mobility and move or live in urban centres where they could have access to social amenities and infrastructure absent in the rural areas. Thus a class structure of the upper class, those who own and control the means of production; the middle class, those who work for the upper class and manage their wealth for them; and the lower class, made up of peasants, unskilled and semi-skilled, artisanal workers, has come to be representative of the work and social relations in Nigeria (Fraad, Resnic, & Wolff, 1994).

Patterns in educational equality in Nigeria

Discussing educational equality among social class as a prerequisite for social reconstruction in a multi-ethnic like Nigeria is not simply about democratizing the wider set of relations within the society which schools and colleges operate, including relations between the state and service providers and between the state and educational participants. It is about developing an enabling particularly politics in which those who are affected by policy decisions have a say in all levels of educational planning and decision-making. It is not just about having a consultative role, consultations that can easily be ignored when the relevant party leaves the table. It is about listening, engagement and accountability in a participatory democratic context (Bake, 2004)

The efforts towards educational equality in the world have been for many years, though conditions are equal; Nigeria is not an exception, as a matter of fact, the third world countries conditions are appalling and economic inequality within countries is rising (Milanovic, 2013). This explains why one of the new SDGs is dedicated to reducing income inequality. Beyond this specific goal, the desire to 'leave no one behind' permeates the entire 2030 Agenda. The result is an unprecedented global commitment to monitoring progress using data disaggregated 'by income, gender, age, race, ethnicity, migratory status, disability, geographic location, and other characteristics relevant to national contexts' (United Nations, 2015).

In the case of education (SDG4), Target 4.5 focuses exclusively on the need to 'ensure equal access to all levels.' Education is a fundamental human right which countries have committed to uphold since they signed the 1948 Universal Declaration of Human Rights. Education is also a key driver for attaining most SDGs by 2030, whether these concern gender equality, healthy families, poverty reduction, sustainable consumption, resilient cities or peaceful societies. Yet for education to have a positive impact in advancing these goals, it is necessary first to ensure equality of opportunity for learning. Given that individuals have varying abilities and competences, it is unrealistic to expect equality of education outcomes (United Nations, 2017).

Working and learning are two components to social reconstruction when this is considered for a multi-ethnic society. In all societies, work plays a very important role not just in access to resources but also in shaping relations of status, power, and love, care and solidarity. Education as a potential source of personal development and lack of it is a potential burden. The objective is to ensure that everyone has engaging and satisfying learning – learning that develops themselves as people. And we should think in terms of the whole range of sites of learning, not just formal educational institutions (Alliyu and Lawal, 2002).

The National Policy on Education (NPE) first published in 1977 and revised in 1981, 1995 and 1998, 2004 and 2006, provides for a 6-3-3-4 structure for the education sector. This translates into six years of primary schooling, three years of junior secondary, three years of senior secondary and four years of tertiary education. In a further review in 2013, an additional one year was included to make for the formal inclusion of pre-primary education into primary education. The subsequent first ten years are therefore treated as a continuum of 10-year basic schooling which is offered in a seamless manner. The basic education structure includes adult and non-formal education programmes, Almajiri education programmes and education for out-of-school children and youths. In Nigeria, education falls under the items on the concurrent legislative list meaning that both Federal and State governments can pass laws on it. However, basic and secondary education, as well as adult and non-formal education, is managed by States and Local Government Areas in Nigeria (EFA report, 2015).

The UBE programme is an expression of the desire of the Government of Nigeria to fight poverty and reinforce participatory democracy by raising the level of awareness and general education of the entire citizenry. The UBEC Law which was subsequently enacted in 2004 stipulates that “Every Government in Nigeria shall provide free, compulsory and universal basic education for every child of primary and junior secondary age” (UBE Act 2004).

The high-level launch of the EFA campaign in 1999 injected a ripple of activities into the EFA environment giving it the impetus to identify and mobilize its stakeholders and review implementation strategies. There are institutions charged with the primary responsibility of delivering on Nigeria's EFA commitment. The institutions are the Universal Basic Education Commission (UBEC), the National Commission for Nomadic Education (NCNE) and the National Commission for Mass Literacy, Adult and Non-formal Education (NMEC). There are other institutions whose services are also connected with the successful delivery of the EFA. These include the National Teachers' Institute (NTI), Nigerian Education and Research Development Council (NERDC), the National Commission for Colleges of Education (NCCE) and the Teachers' Registration Council of Nigeria (TRCN) with some Civil Society Organizations working on education (FME, 2013).

Conclusion

The uniqueness of education in people's lives has been progressively acknowledged in today's globalised world. Education is irreplaceable for empowering individuals and for social transformation. It has a key role in organizing children for democratic citizenship and responsibilities of the future. It is also central to poverty eradication strategies and the achievements of the global commitments for sustainable developments. It is an essential structure for human developments. As the Human Developments Reports 2012 mention, the growth in the Human Development Index is associated with growth in public spending on education. (UNDP, 2012). As such, a dominant place must be accorded to the right to education in development thinking for a better world of understanding.

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A Conceptual Framework in Developing an Alternative Listening Comprehension Test to Profile Learners' Performance

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Abstract

This conceptual paper addresses the information in developing a comprehensive listening comprehension test to profile learners' listening performance based on international standards. Listening is a fundamental skill in which students need to gain adequate proficiency for their successful in communication and academic achievement. Underpinned by tenets derived from three flagship models and approach- Socio-cognitive Framework for Developing Test of Listening by Weir, the Cognitive Processing Model by Geranpayeh and Taylor, and General Language Ability and Listening Ability Model by Rost - a framework is conceptualised. The conceptual framework clarifies the interplay of the four notions and their connections which will inform the main purpose of the study that is to develop a listening comprehension test to benchmark and profile the undergraduate students in Malaysia.

Keywords: Conceptual Framework, Listening Comprehension, Testing Listening, Listening Performance, Benchmarking, Profiling

1. Introduction

1.1 Introduction

Listening is known as a receptive skill, which involves the process of interpreting messages of what is said. It allows them to understand what they hear and take part in any form of successful communication. While listening to lectures or class discussion, students are expected to respond appropriately, to ask the speaker to repeat or to clarify what they have said. However, if the lectures or classes are conducted by using the English language, the process of comprehending the lectures and information will be challenging especially to the students with low proficiency in the English language.

In Malaysia, the English language is learned as a second language and like in many language settings worldwide, listening is widely acknowledged as a neglected skill due to insufficient pedagogical development and even in teacher training (Mendelson, 2001; Rost, 2002; Vandergrift, 2007; Field, 2008). Although listening is important in comprehending lectures, previous researchers have discovered that at schools, students were not exposed to listening comprehension process as more attention was given on other skills like reading and writing (Selamat and Sidhu 2011). In fact, listening has not been given the treatment or status in most English language learning

classroom in Malaysia (Suchitra, Koo and Kesumawati 2014). By the end of secondary or post-secondary school, students are expected to gain sufficient mastery of all the skills in the English language including listening to enable them to study effectively at tertiary levels and to use the language whenever necessary in everyday situations and their future career. However, findings from a collaborative baseline project in 2013 by the Ministry of Education (MOE) and Cambridge English Language Assessment (CELA) contradicts with the above expectations. Moreover, listening is found to be neglected, and little attention was given on both listening comprehension process and assessment (Robinson et al. 2014). At the moment, there is no benchmarking or a stand-alone test on students' listening abilities except for the Malaysian University English Test (MUET).

1.2 Problem Statement

Although MUET is a test of language proficiency and largely used for university admission, unfortunately, it does not provide enough information specifically on the students' listening abilities. The MUET band description indicates students' listening ability in general, and it does not achieve the main aim of getting information on how good or what students can do base on their test score. At present, listening has been included in the latest curriculum of the primary and secondary school in Malaysia, and yet there is still lack of research and documented academic work done locally in determining the ESL listening skills abilities of the students especially among the undergraduate students. In fact, reports from the Malaysian Examination Council indicate very poor performance on listening components of MUET from the year 2010 until 2015 (Official Portal Malaysian Examination Council 2010-2015). Overall, the result indicates that almost all the candidates fall at Band 1 which indicates below expected levels of performance for tertiary education. Band 1 is considered as an extremely limited user in MUET Band description. Majority of candidates scored Band 2 and below on November 2015 which depicted an alarming situation where listening should then be given more attention like reading and writing. Feedback from the teachers from baseline study indicated that the students do not, in general, put much effort into learning English, and some have negative attitudes and low motivation. Therefore, there is a need to develop an alternative listening comprehension test that is compatible and could be used to benchmark and profile the students' listening ability so that their performance could be monitored and enhanced to fit the expectation of being undergraduate students. Besides, once the students know how to listen to learn, they will not be left behind as they are able to comprehend lectures and participate in classroom discussions.

2. Literature Review

There is no doubt that listening skill is important in daily life. It is very important skills as human beings spend a considerable amount of their time engaged in communication and other activities that required listening with it. The importance of listening is not just a matter of time on task. It is a critical factor for academic success. Generally, teachers expect students to listen consistently with a cognitive load which they would be putting on their students during instruction both in classroom interaction or in group discussions. In a spoken message, 55% of the meaning is translated non-verbally, 38% is indicated by the tone of voice, while only 7% is conveyed by the words used (Mehrabian 1981). Therefore, as a student, they need to integrate both verbal and nonverbal information while listening to their teachers. Learning will be more likely difficult then how it supposed to be if teachers fail to consistently produce the oral messages across the verbal and nonverbal signal. In fact, it has been proven that students who listen effectively are more successful in their schoolwork and in their achievement levels and among college students who fail, lacking listening skills were a stronger factor than reading skills or academic aptitude (McDevitt, Sheenan and McMenamin 1991).

Although testing listening comprehension is one of the major concerns of language testing for decades, there has been relatively little research on how to measure listening comprehension in a reliable and valid manner. In fact, from a review of the literature, there is no generally accepted theory of listening comprehension that suggests on which best to base these tests. Brown states in his book that "we must rely as much as possible on observable performance in our assessments of students" (2004, p.117). As a result of the process of listening cannot be observed directly, the result of test taker's auditory processing can only be observed in the form of spoken or

written responses (Brown 2005). Therefore, in order to test students' listening proficiency, testers need to consider many important details in developing the test instruments (Vivien and O'Sullivan 2014). Tests are always made for a purpose, and the purpose has influenced the construct to be measured. There are a number of common purposes for testing listening including general language proficiency, achievement test, and diagnostic test. In order to benchmark and profile students' listening performance, a valid and reliable standardized listening comprehension test is required and need to be developed.

2.1 Theoretical Underpinning

This part will briefly highlight the tenets from the models, approach and the themes from the area of listening comprehension process, listening ability and constructing tests of listening to that form a conceptual framework. For listening comprehension process, the main model underpinning behind this study is by Geranpayeh and Taylor (2013) and supported by other researchers' point of view like Buck (2001) and Rost (2014). For constructing or designing a test, the main reference is on Weir's (2005) framework and Buck's (2001) suggestions on default listening construct for the general language proficiency test.

2.1.1 Cognitive Processing Model

This model highlights different processes involved in moving from the sound wave to an idea in the listeners' mind. This model developed by Geranpayeh and Taylor (2013) and used by the Cambridge English language assessment. This model is closely related to the model used for reading. In this model, the listening process is broken down into five levels with the lowest level is *input decoding* which involves in isolating phonemics units from the basic sound waves the listeners receive. The second level is *a lexical search* that involves identifying words from the individual phonemes. The next level is *syntactic parsing* which involves imposing a syntactic structure on a group of words to produce utterances, and this stage is equivalent to sentences in the written language. The fourth level is the meaning construction process which involves contextualizing the bare proposition in the third level and enriching it with the real-world knowledge and inferences to create a full proposition representing what speaker really meant. The final stage is discourse construction involves taking the new proposition and incorporating it into a representation of the whole discourse linking to everything that has gone before. The fourth and fifth level of the model complete the comprehension process.

2.1.2 General Language Ability and Listening Ability Model

This model formulated by Rost to map out the components of listening involves invalid assessment. It highlights how all five listening abilities overlap with general language ability. The listening abilities are phonological knowledge, lexical knowledge, syntactic knowledge, pragmatic knowledge, and general knowledge. *Phonological knowledge* is where a listener recognizes words in the stream of speech through knowledge of phonemes, allophonic variation, prosody, intonation, and stress. *Lexical knowledge* incorporates with knowing the meaning of words and their relationships with other words and collocations. *Syntactic knowledge* is about the parse speech at sentence and discourse levels. While *general knowledge* consists of knowledge about the world, this is including background knowledge, extralinguistic knowledge and other ways that people communicate.

2.1.3 Socio-cognitive Framework for Developing Tests of Listening

Adopting validity frameworks guarantees more valid and reliable tests with more systematic decision and it can be a pillar in validating the default listening construct to test learners' proficiency level. This framework could help a test developer to develop, validate and critique the test as it offers a systematic way of analyzing the features of listening task and how they contribute to *context validity* and the *cognitive validity* (Taylor and Geranpayeh 2011). Weir (2005) proposed four diagrammatic overviews of the macro-skills framework of reading, listening, speaking and writing. In his Socio-cognitive framework for validating listening, test identifies the evidence vital to develop a transparent and coherent validity argument as it is theoretically sound yet operationally useful when constructing and validating tests. The framework addressed five key elements to ensure fairness in constructing the listening test. The five key elements are context validity, theory-based

validity, scoring validity, consequential validity, and criterion-related validity. The overall framework provides a map of what should be happening in terms of validation and just as important as when the test is completed. The Test takers and *Cognitive validity* elements of the model both represent the candidate in the test event. Weir (2005) believes that the characteristics of the test takers will directly impact how they process the task as defined by the parameters contained in the description of the test context. *Context validity* refers to the knowledge base that relates both task input and expected output and to the physical conditions or parameters that define the events. The parameters are related to both administrative settings such as security and the demand of the setting like duration of time for testing etc. *Scoring validity* refers to the fair and meaningful outcomes of test score or grades as a result of clearly establishing the links between all the decisions taken in developing the scoring system to the other elements of the model.

2.1.4 The Integrated Approach

There have been many historical developments in testing listening. Three of the developments which correspond to the theories of language learning and the different methods used to teach English for the past 60 years are the discrete-point approach, integrative approach and communicative approach (Buck 2001). These approaches are substantial as it is representing the growth of an expanding view of the listening construct. This view has emerged from the narrow view of listening as recognizing elements, through listening as language processing and then to the more current idea of listening as interpreting meaning in terms of communicative context. The integrative approach can be defined as a sentence-processing approach and Oller is one of the most believers in this approach. It attempted to move away from the discrete way of measuring language items separately by testing more than one items of language at a time. The integrated approach emphasizes on the process itself in which it has been regarded by the two level of processing language that is listening in the sense of the relationship between elements and as processing sequences of linguistic elements. In other words, it involves processing text in real time, to understand the literal and semantic meaning (Buck, 2001). However, it is often difficult to identify exactly what construct is being made either by a whole test or by individual items. The ideas about pragmatic expectancy grammar and the theories about language processing that underlie integrative test have not been seriously challenged. The drawback with integrative testing is that it tends to measure a range of language skills too narrow although the skills that they test are clearly important and fundamental. Listeners in integrative test grasp the basic linguistic information in the message. Due to language processing in the integrative test is seen as an isolated event, they do not relate the information that they grasp into the context.

2.1.5 General Language Proficiency

For the purpose of this research, a stand-alone general proficiency test of listening ability was developed by considering Buck's default listening construct which includes grammatical knowledge, discourse knowledge and pragmatic knowledge in it. According to Buck (2001), statement evaluation items, response evaluation items, longer information texts, and dictation are the four tasks type that is suitable to assess grammatical knowledge. To assess grammatical knowledge requires processing short samples of realistic language on a semantic level. Texts are suggested to be fast, with typical phonological modification and processed automatically. He further suggested that it is always a good idea to have a number of different task types to minimize the effect of one particular test methods. However, undergraduate students need a test with a broader listening construct, not just a test that assesses grammatical knowledge. A larger sample of discourse and device tasks that require the students to understand inferred meaning and pragmatic implications. Buck suggested starting with texts that contain information which can be put in grid or diagram. Other than that, narratives of interesting events are also appropriate which are normally easy to be summarized so that short-answer comprehension questions can be constructed. Students can be asked to fill in gaps on a summary of a story. Discourse and pragmatic knowledge are important too. Buck suggested writing tasks where the necessary information is scattered over the passage where the task will require testers to combine and summarize information. This task is suitable to access discourse patterns. Inferences about the main point, the gist, indirect statement, hints, pragmatic implications, indirect speech ask and interpreting the tone and attitude of speeches are suitable to assess pragmatic knowledge.

2.1.6 Common European Framework of Reference (CEFR)

Originally, CEFR is used to improve language teaching in countries of Europe. However recently, it is now being implemented worldwide and has been made use as a basis for reforming English language education in many countries including Malaysia. CEFR has been selected to benchmark the performance of current English language education system in Malaysia against the international standards and monitor developments in the years to 2025 (English Language Standards and Quality Council 2015).

“The relevance of the CEFR to language education is that firstly it offers descriptive scheme as a starting point to review curriculum content, and secondly that the common reference levels provide a framework for putting curriculum objectives, entry testing, syllabus definition, materials organization, progress testing and certification of proficiency into one coherent local system that is appropriate to the context, related to the real world language ability, and easily communicated, internally and externally.”

(English Language Education Reform in Malaysia: The Roadmap 2015-2025; pg:61)

The CEFR differs from other language frameworks in two ways. Firstly, CEFR highlights the competencies a learner needs (pragmatic, linguistics, sociolinguistics, strategic, intercultural) as a language user and it develops the familiar but inadequate four skills into a richer description of activities the learners undertake including spoken and written, reception, interaction, production and mediation. Secondly, it provides validated, scientifically calibrated descriptors of these different aspects of its descriptive scheme, except for intercultural competences and mediation (North, Ortega & Sheehan, 2010). Learners have always been categorized as beginners, intermediate or advanced learner but CEFR avoids using relative labels as mentioned above because they mean very different things in different contexts. The labels used in CEFR refer learners based on the six reference levels. These levels are referred to basic users (A), the independent user (B) and proficiency user (C). Each of this level is divided into level 1 and 2, giving the full scale of 6 levels. The ‘Can-Do’ statements offer guidance to educators so that they can recognize and talk about ability levels. Test developers can use them as a guide in developing test and must decide which statements are most relevant to their context. If the available scales or statements do not match the context, it can be supplemented with ‘Can-Do’ statements from other sources, or new ones written for the context. Attempts to link or relate examinations to the CEFR should be seen as validation projects of the CEFR itself. Test developer must be able to justify the way they relate or translate the CEFR to their context partly by explaining features of their context.

2.2 Prescribed Listening Performance Descriptors (PLPD)

PLPD is referred to a detailed description of specific ESL listening abilities which incorporated listening specification of MUET, Rost’s General Language Ability and Listening Ability, CEFR, EQUALS, DIALANG listening scale, and TOEIC Can-Do Level Table; in developing the descriptors. The rationale for the development of PLPD is due to the fact that there is a need to have a standardized reference guide as a framework in which a reliable and valid instrument could be conceptualised. The description of the listening abilities is all based on “Can-Do” statements.

2.3 Descriptive and comparative performance

Data collected from the test will be analyzed in two ways: descriptive and comparative performance. After administering the test, the researcher will mark the test by referring to the marking scheme. For the purpose of descriptive performance, participants' score which will be based on the cut-score developed prior in the pilot study, will be analyzed. From the score too, participants' listening performance will be benchmarked by referring to Prescribed Listening Performance Descriptors. For the purpose of comparative performance, the participants' score will be compared with their MUET listening score, and program of study. The comparison between their SLCT score and MUET listening score is made to determine the criterion-related validity as part of the requirements in the socio-cognitive framework for developing a test of listening.

2.4 Profiling Listener Performance Standard

Listener profile is a description of the characteristics of a group of students based on their listening performance standard. It is based on the level of expected performance after the respondents perform in the listening comprehension test (SLCT). The listeners will be profiled based on five performance standards. They are:

- a) Primary Standard Performers,
- b) Secondary Standard Performers,
- c) Exceed Standard Performers,
- d) Comprehensive Standard Performers or
- e) Mastery Standard Performers

Being undergraduate students, the target listening performance standard is Exceed Standard Performers. Any students who are profiled as primary or secondary standard performers are categorized as below expectation performers. These performers will need to be paid more attention to as their listening performance could have to affect their academic as all lectures, any academic discussions, and activities in the university are conducted in the English language.

3. Conceptual Framework

By adopting from the models of Cognitive Processing by Geranpayeh and Taylor (2013), frameworks of Weir's Socio-cognitive framework for testing listening (2005), Common European Framework of Reference (CEFR); and themes discussed in literature review, the conceptual framework illustrates the relationship among the notions of developing Standardized Listening Comprehension Test (SLCT), benchmarking learners' listening performance and profiling listeners. This part begins with a discussion on the smaller elements in each notion and then proceeds to establish the connections that exist among the notions. Both the notions and connections are visualized in figure 1 below. With the aim of the study to develop a Listening Comprehension Test for Non-Native Speaker (LisTeNS), and looking through the lenses of CEFR, Socio-cognitive Framework, and the Cognitive Processing Theory, benchmarking and profiling the learners occurs after obtaining the test score from the SLCT test. Thus, the big picture here is the development of listening comprehension test. The first process of developing test in this study encompasses all the stages in the Socio-cognitive framework for validating testing of listening (Weir 2005) which includes all the series of test instruments and checklist to support the test cognitively and theoretically; and the calculation for validity and reliability of the test so that the test developed is reliable and valid to be tested. The item validity, item reliability, item facility, and item discrimination were calculated after the pilot test so that any modification needed to improve the test could be done by the researcher. This process also includes the critical review by expert panels who review all aspects of the test as stated in the test instruments and checklists in making sure that it meets the level of quality as required for linking the test to the set of standards. Other than that, the experts have to review whether the relevant skills as stated in the Prescribed Listening Performance Descriptors (PLPD) linked with levels as described in the test specification, and clarify the acceptability of the cut scores that were calculated based on the pilot study.

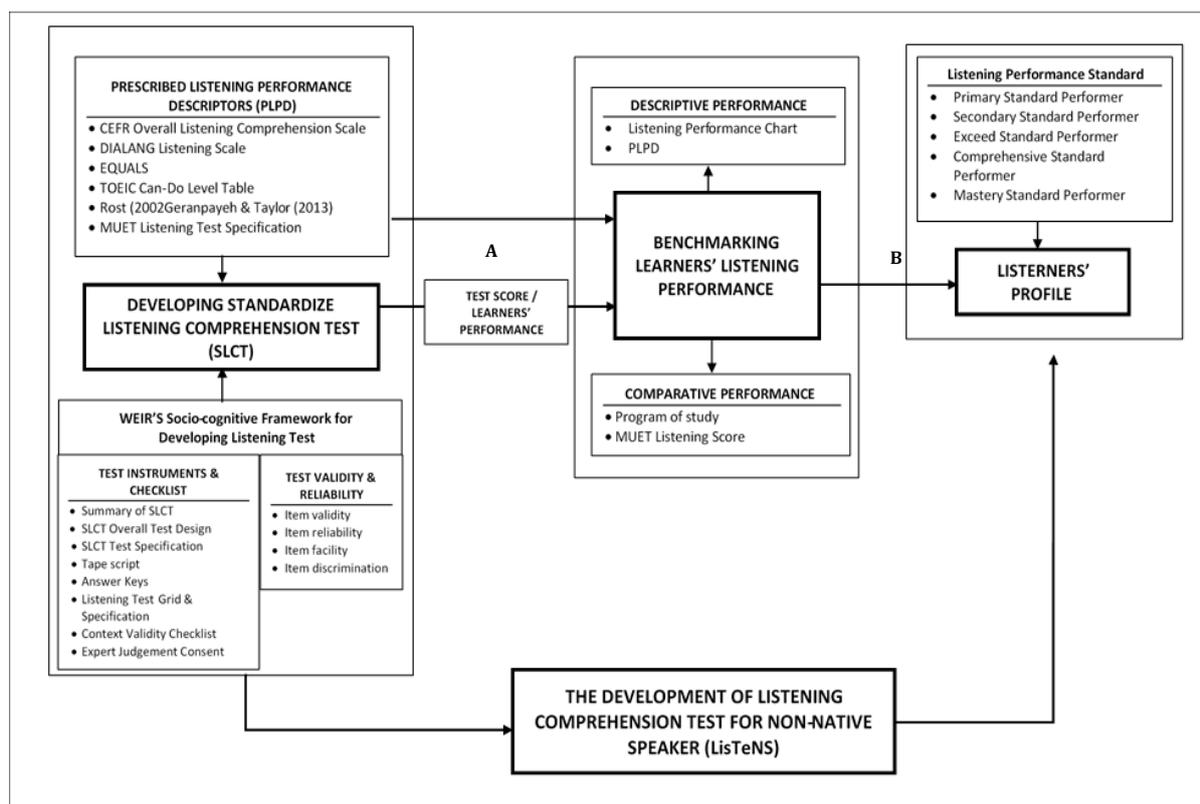


Figure 1 Conceptual Framework

The second notion of the framework involves in benchmarking the learners' listening performance. The learners' performance will be descriptively and comparatively benchmarked by using the test score. For descriptive performance, listening performance chart is used to determine whether learners have met the expectation of the listening performance standard. This chart consists of three types of expectation: below expectation, meet expectation and exceed expectation. Then, by referring to the cut scores, learners listening abilities' descriptions on what they can or cannot do will be identified by referring to PLPD. If the cut score in range with band 1, then the learners are categorized into Primary Standard; band 2 as Secondary Standard; band 3 as Exceed Standard; band 4 as Comprehensive Standard; and band 5 as Mastery standard. While for comparative performance, learners' test score is compared among the five programs of study and their MUET listening test score. These comparisons are important as it was stated in the Socio-cognitive framework as a consequential validity and criterion-related validity. The score interpretation is used for washback purposes. While the comparison of the test score with MUET listening score and program of study is done in order to determine the score value. The final notion of the framework focuses on profiling the learners' listening standard by categorizing the learners as either Primary Standard Performer, Secondary Standard Performer, Exceed Standard Performer, Comprehensive Standard Performer or Mastery Standard Performer. Their profiles are identified based on their test score and descriptive performance.

The notions in the conceptual framework are worthless without the clarification of how they are connected. Referring to figure 1, firstly it is clear that the process of developing LisTeNS to profile the listeners' performance requires a detailed process from planning until administering the test with several qualities to be met so that scores obtained from the test are reliable and valid to be used to benchmark the learners, and then to profile them based on the five standard performances. This also portrays the influence of an evidence-based approach of the Socio-cognitive framework and PLPD in constructing the test as there are many criteria and psychometrics issues to be covered including as listed in the list of test instruments and checklist, as well as the calculation of item validity, item reliability, item facility, and item discrimination. The arrows A and B show the connection between the test score and the listening descriptors with the benchmarking process and profiling the students. Lastly, the study is also interested in exploring the comparison between the learners' performance in SLCT with their program of study and their MUET listening score.

3. Conclusion

The conceptual framework presented in this article is an initial but crucial part for bigger research especially on testing listening. This chapter has emphasized the tenets from models, an evidence-based approach, and instruments gained from the literature review and discussed the sub-notions (descriptive performance, comparative performance and listening performance standard) with their importance for the purpose of consequential validity and criterion-related validity. The deliberation of models, theoretical framework and themes have highlighted the three major notions (developing of SLCT, benchmarking listeners' performance and profiling listeners' standard) that becomes the pillars of the conceptual framework in developing Listening Comprehension Test for Non-Native Speaker (LisTeNS) to profile the learners' performance.

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Visual Teaching Strategies to Reduce the Learning Difficulties in Advanced Algebra and Analytic Geometry Course

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Abstract

In this article, we present the results of a classroom action study that was done in the course of advanced algebra and analytic geometry at Huaiyin Institute of Technology. Specifically, we identify and analyze the students' difficulties in learning the course of advanced algebra and analytic geometry, put forward three visual strategies to reduce the learning difficulties. We conduct a questionnaire after a final exam to determine how these visual teaching strategies help students to learn and how the visual teaching strategies affect their attitude towards advanced algebra and analytic geometry. The results are positive and help to answer the question about the value of visual teaching strategies, suggesting ways forward in teaching advanced algebra and analytic geometry.

Keywords: Advanced Algebra and Analytical Geometry, Visual Teaching, Learning Difficulty, Teaching Strategy

1. Introduction

With the continual development of advanced education reform in China, especially the college course reform, how to make the college students acquire more knowledge with less time and make them be intellectuals with stronger innovation ability, is a core subject that needs to be considered carefully in the process of college course reform. Traditionally, the most important and core curriculums for college students whose majors are mathematics in China are advanced algebra, analytic geometry, and mathematical analysis. But with the establishments of some new courses, the class hours of the previous core curriculums are less and less. And due to the fact that there are some close relationships between advanced algebra and analytic geometry, it is suitable and necessary to combine these two courses, advanced algebra, and analytic geometry, into one course. The first practitioner who teaches advanced algebra and analytic geometry as one course are Daoji Meng, a professor at Nankai University. The textbook (Meng, 1998) named after advanced algebra and analytic geometry was published by Science Press. Since then, more and more universities in China adopted this course teaching reform, and more textbooks come into the world.

The purpose of this paper is to identify and analyze the students' difficulties in learning the course of advanced algebra and analytic geometry, put forward three visual strategies to reduce learning difficulties. A questionnaire is conducted after a final exam to determine how the visual teaching strategies help students to learn advanced algebra and analytic geometry and how the visual teaching strategies affect their attitude towards advanced algebra and analytic geometry. The results are positive and help to answer the question about the value of visual teaching strategies, suggesting ways forward in teaching advanced algebra and analytic geometry.

2. The traditional teaching

In general, the curriculum of advanced algebra and analytic geometry is divided into two parts which are taught in the first and second semester respectively. Normally, the advanced algebra and analytic geometry course are taken simultaneously with the course of mathematical analysis. About 70 students who have taken an introductory math course with some logic and set theory, function and some proof techniques attend this advanced algebra and analytic geometry course yearly. The textbook used in the teaching of advanced algebra and analytic geometry is written by a group of teachers (2005) in the department of applied mathematics in Tongji University.

The teaching of the advanced algebra and analytic geometry course is fairly traditional in appearance. Its teaching process consists of lecturing, exercise including homework for practicing and reinforcing the learning, and examination including mid-semester and final examination for testing whether the students have learned some theories and procedures. As far as the lecturing is concerned, it presents some concepts, theories, and examples. In more detail, lecturing consists of definitions, properties and lemmas, theories and their proofs, examples, and commentaries on the exercises that have been done in the class. The course in the first semester lasts 14 weeks, and we have three 90 minute lectures a week. But in the second semester, the course lasts 15 weeks, and we have two lectures a week. One lecture takes 90, and the other takes 135 minutes. The polynomial theories of one indeterminate, analytic geometry, the systems of linear equations and matrix algebra are what the students expect, and they learn this course well. However, as far as our students are concerned, the advanced algebra and analytic geometry course are very difficult to learn as a whole. Taking the 70 students as an example, about 78.6% students have a lot of difficulty in learning this course, only 21.4% students think this course is easy to learn, and about 58.6% students are not interested in the course.

3. Learning difficulties

It is clear that poor and average students have a great deal of difficulty in learning this course for the first time. In order to enhance the teaching and learning of this course, it is natural for us to know something about what difficulties that our students have encountered in the process of teaching and learning advanced algebra and analytic geometry.

Table 1: *Level of the Learning difficulties in advanced algebra and analytic geometry*

level of learning the difficulty	extremely difficult	especially difficult	very difficult	fairly difficult
abstract concept	47	19	3	1
theoretical calculation	2	13	39	14
theorem's proof	18	34	17	0
lack of basic knowledge	3	3	11	51

The extreme difficulty which means the most difficult aspect is that there are many abstract concepts which are defined formally and axiomatized with many mathematical expressions (signs). As shown in Table 1, there are 47 students (of the total 70 students) who think so, and only 19 (respectively, 3 and 1) students think many abstract concepts is especially (respectively, very and fairly) difficult. It seems that many abstract mathematical concepts and definitions are the most important difficulty which our students have encountered.

On the one hand, many students have a lot of difficulty in understanding mathematical concepts and definitions in the course of advanced algebra and analytic geometry. It is known that almost all concepts and definitions in this course are defined formally and axiomatized with many mathematical expressions such as linear space and subspace, linearly dependence and independence, the direct sum of subspaces, isomorphism, dual space, linear transform, and inner product space, etc. Weak to average students tend to avoid the use of formal definitions. On

the contrary, they try to use some context-dependent recipes, substitutes for actual definition, which come from the numerous but limited examples that they have been introduced to in the school mathematics.

On the other hand, since there are many mathematical relationships between these abstract concepts are not always clear, many students (especially, poor and average students) are usually confused and disoriented. For example, it is known that two matrices A and B are said to be equivalent if there are non-singular matrices P and Q such that $B=PAQ$, two matrices A and B are said to be similar if there are non-singular matrix S such that $B=SAS^{-1}$, where S^{-1} denotes the inverse of matrix S , and two matrices A and B are said to be congruent if there are non-singular matrix S such that $B=SAS^T$, where S^T denotes the transpose of matrix S . Those relationships between the above three concepts (equivalence, similarity, and congruence) are confusing for our students. Many students often failed to make these concepts' differences and connections clear.

Mathematical proof of a theorem is the second obstacle which is especially difficult. It is clear from Table 1 that nearly 100% of students think theorem's proof is at least very difficult to understand and learn, and 50% students think the mathematical proof is at least especially difficult. Recall that a proof of a theorem is a finite sequence of claims, each claim is derived logically from the previous claims, as well as theorems whose truth have been already established. The last claim in the sequence is the statement of the theorem, or the statement that clearly implies the theorem. It is well known that there are two different conceptions of mathematical proof. The first one is an informal proof, a rigorous natural-language expression that is intended to convince the audience of the truth of a theorem. The second one is a formal proof which is not written in a natural language, but instead uses a formal language consisting of certain strings of symbols from a fixed alphabet. In our teaching practice, almost all mathematical proofs of theorems are written in a formal language. The forms of theorems are multifarious, such as "If...Then...", "If...Then...Otherwise...", and "... if and only if ...", Etc. Methods of proof are also multifarious. Direct proof, proof by mathematical induction, proof by contradiction, proof by transposition which establishes the conclusion "if p then q " by proving the equivalent contrapositive statement "if not q then not p ", proof by construction (or proof by example) which is the construction of a concrete example with a property to show that something having that property exists, and proof by exhaustion in which the conclusion is established by dividing it into a finite number of cases and proving each one separately, are applied widely in the proving processes of theorems and exercises. Most students tend to prove a theorem directly and are not familiar with other strategies of proving a theorem.

The third difficulty that is very difficult is that theoretical calculations and computations. It is known that theoretical calculations are usually tedious and cumbersome. It can be seen from Table 1 that nearly 60% of students think the tedious theoretical calculation is very difficult.

4. Visual teaching strategies

The term visualization is used in different meaning between mathematics educators. It is defined by Zazkis, Dubinsky, and Dautermann (1996), that is, as an act in which an individual establishes a strong connection between an internal construct and something to which access is gained through the sense. Such a connection can be made in two directions. An act of visualization may consist of any mental construction of an object or process that an individual associates with objects or events perceived by an external source. Alternatively, it may consist of the construction, on some external medium such as paper of objects or events. Consequently, the act of visualization is the translation from external to mental. As stated by Konyalioglu, Ipek and Isik (2005), visualization can be alternative method and powerful resource for students learning mathematics (especially, advanced algebra and analytic geometry), a resource that can upon the way to different ways of thinking about mathematics than the linguistic and logico-propositional thinking of traditional and the symbol manipulation of traditional algebra. Visual teaching method provides students to look at the course of advanced algebra and analytic geometry which was seen as an accumulation of abstract structures and concepts from a different perspective.

The first visual teaching strategy is to relate algebraic statements of these concepts to geometric statements. Graph, diagram, pictures and geometrical shape or models are tools for visualization of the abstract concepts and definitions in advanced algebra and analytic geometry. By means of these, a relation between physical or

external world and the abstract concepts are established. Consequently, abstract concepts and definitions become concrete and clear for students to understand.

For instance, a geometric interpretation of the Gram-Schmidt orthogonalization process in R^3 not only helps students to understand the process but also prevents them from getting lost in the computations. Geometric interpretation of eigenvalues and eigenvectors of linear transformations in R^2 and R^3 has the same advantages. In a word, an integrated method that combines geometric interpretation and algebraic interpretation makes the students' learning and understanding better.

The second visual teaching strategy is to emphasize practicability. For example, Digital Image Processing (DIP) can be used widely in the teaching of advanced algebra and analytic geometry. It is known from the book written by Gonzales and Woods (2008) that an $m \times n$ digital image can be stored as an $m \times n$ matrix:

$$f(x, y) = \begin{pmatrix} f(0, 0) & f(0, 1) & \cdots & f(0, n) \\ f(1, 0) & f(1, 1) & \cdots & f(1, n) \\ \vdots & \vdots & & \vdots \\ f(m-1, 0) & f(m-1, 1) & \cdots & f(m-1, n) \end{pmatrix},$$

Where two-dimensional function $f(x, y)$ is called the intensity or grey level of the image at the point (x, y) and each element of the matrix is called a picture element or pixel. Consequently, all of the standard ways to manipulate images (contrast enhancement, lightening, darkening, histogram analysis, fading, warping, etc.) can be performed by applying mathematical operations to the matrix associated with the image. Since the results of such operations are inherently visual, students are guided by increasingly sophisticated visualizations, thus developing important problem-solving skills for the understanding of mathematical concepts and theories. Supported by modern DIP technology, the connection between the course of advanced algebra and analytic geometry needs to be exploited more efficiently. Students are intrigued by stretching, rotating or flipping images, and proceed naturally to the study of contrast enhancement, detecting images in data corrupted by noise, feature extraction, edge detection and techniques of data compression, and all these topics are fruitfully researched by using concepts from the course of higher algebra and analytic geometry. For instance, students can be introduced to a singular value decomposition method to compress data so that the original image could be reconstructed with much less data.

The third visual teaching strategy is to use computer software (e.g., Maple, Matlab, Mathematica, etc.). By using computer soft wares, we can free class time to teach students how to write proofs. Since coherent writing is not possible without coherent thinking, this is a useful teaching tool for students. It also leads to an appreciation of beauty in mathematics. Some students have been observed comparing different proofs and noticing the elegance of the shorter and simpler proof. Moreover, instead of simply giving examples of objects that satisfy a definition, or checking that they satisfy a certain list of properties, students are led by using computer software through a series of exercises to work with examples and explore their properties. For example, non-commutativity and other properties of the product of matrices become more real if students produce examples by themselves. Of course, computer software is not necessary to accomplish this purpose, but its use makes it possible to do this in class without spending too much time. Later on, students notice what the computer will not do for them: interpret the solutions of a linear system in geometric terms or in terms of the applied problems that gave rise to the system. This forces them to focus on understanding the process and the results instead of mechanically performing calculations.

5. Questionnaire and results

A questionnaire is conducted after a final exam to determine how visual teaching helps students to learn advanced algebra and analytic geometry and how the visual teaching affects their attitude towards advanced algebra and analytic geometry. The questionnaire is listed below with the results.

5.1 Questionnaire

Evaluate the following statements by choosing from (1) to (5), where:

- (1) Strongly agree
- (2) Agree
- (3) Neutral
- (4) Disagree
- (5) Strongly disagree

Statement 1: *Visual teaching strategies made me think critically and more deeply about the concepts, theorems and their proofs in higher algebra and analytic geometry.*

Statement 2: *Visual teaching of higher algebra and analytic geometry improved my mathematical skills.*

Statement 3: *Visual teaching of higher algebra and analytic geometry changed my attitude towards mathematics.*

5.2 Results

Table 2. *Results of the questionnaire*

<i>Statement</i>	Strongly agree(%)	Agree (%)	Neutral (%)	Disagree(%)	Strongly disagree(%)
1	35	51.2	10	2.5	1.3
2	32.5	55	11.2	1.3	0
3	46.3	53.7	0	0	0

As seen from Table 2, at least 86% of students agreed that visual teaching strategies made them think critically and more deeply about the concepts, theorems and their proofs in advanced algebra and analytic geometry. 86.5% of students agreed that visual teaching of advanced algebra and analytic geometry improved their mathematical skills. To our surprise, all the students agreed that visual teaching of advanced algebra and analytic geometry changed their attitude towards mathematics positively.

6. Conclusions

The visual teaching strategies presented in this paper seek to reverse students' negative perceptions about advanced algebra and analytic geometry and to improve their course performance by developing their visual understanding of advanced algebra and analytic geometry. However, visual teaching is not meant to replace traditional topics. It provides a course supplement with a much different flavor to enhance the teaching of advanced algebra and analytic geometry.

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Learning Competencies of Two Science Textbooks for Grade 9: A Comparative Content Analysis Based on Bloom's Revised Taxonomy of Cognitive Domain

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Abstract

The K-12 Science curriculum envisions the development of scientifically, technologically, and environmentally literate and productive members of society who are critical problem solvers, innovative and creative citizens, informed decision makers and effective communicators. To achieve these, higher order thinking skills must be developed among the learners. Textbook serves as a vehicle for the promotion of a specific vision of curricula. One of the important parts of the textbook was the stated learning objectives because it serves as the basis for any kinds of assessments. Thus, this study aimed to analyze learning objectives of science textbooks in order to determine if it contribute to the development of higher order thinking skills among the learners of grade 9. The findings revealed that the science textbooks were inadequate for the development of higher-order thinking skills. Science textbooks gave more emphasis to lower order thinking skills instead. Therefore, it is highly recommended that teacher should supplement more activities that promote higher order thinking skills and the authors of the textbook should modify the learning objectives of the science textbooks in a regressive sequence of cognitive process levels and gave more emphasis on the metacognitive knowledge dimension of Bloom's revised taxonomy.

Keywords: K-12 Science Curriculum, Learning Competencies, Textbook Analysis, Revised Blooms Taxonomy

Introduction

The Department of Education is the executive department of the Philippines government responsible for ensuring access to, promoting equity in and improving the quality of basic education. It is the main agency tasked to manage and govern the Philippines system of basic education. This department formulates, implements, and coordinates policies, plans, programs and projects in the areas of formal and non-formal basic education. It supervises all elementary and secondary education institution in both public and privates schools (DepEd vision, mission, core values and goals 2018).

One of the latest program designed by the Department of Education is the k-12 basic curriculum that aims to enhance learner's basic skills, produce more competent citizens and prepare graduates for lifelong learning and employment. "K" stands for kindergarten and "12" refers to the succeeding 12 years of basic education (Bigcas 2016).

The K-12 Science Curriculum envisions the development of scientifically, technologically, and environmentally literate and productive members of society who manifest skills as critical problem solvers, responsible stewards of nature, innovative and creative citizens, informed decision makers and effective communicators. Science education aims to develop scientific literacy among learners that will prepare them to be informed and participative citizens who are able to make judgements and decisions regarding application of scientific knowledge that may have social, health, and environmental impacts (K to 12 Curriculum Guide in Science 2018). To achieve these, higher order thinking skills must be developed among the learners.

Assaly and Smadi (2015) as cited by Shavinia (2013) claims that citizens who think critically and creatively are “guarantees of political stability, economic growth, scientific and cultural enrichment, psychological health, and the general prosperity of any society in the 21st century.” As a result, more attention has been given all over the world to the importance of developing students’ HOTS or higher order thinking skills.

The implementation of this K-12 Science Curriculum requires many significant components that must be considered. Among these are the textbooks that play a vital role in the teaching-learning process. Textbooks are widely accepted as common feature of classrooms worldwide and are important vehicles for the promotion of curricula. Textbooks put the curriculum into an actual situation. The Philippine government gives attention to the important role of books in nation building by creating the National Book Development Board based on R.A. 8047 that is tasked to formulate and implement a National Book Policy.

A textbook contains many parts. Learning objectives, lessons, images, graphs, activities, exercises and questions are considered content of a textbook. Learning objective is one of the most important part of a textbook. It connects the content and assessment of the textbook. It is an outcome statement that captures specifically what knowledge, skills, and attitudes learners should be able to exhibit after the lessons. It guides the selection of learning activities and exercises that will best achieve the intended goals. It also gives learners a clear picture of what to expect and what’s expected from them (Creating Learning Objectives 2018). Thus, it is significant to evaluate the learning objectives in a textbook.

Bloom’s Taxonomy of Cognitive Domain is a framework used to classify educational learning objectives. It was introduced by Benjamin Bloom in 1956, an educational psychologist and associate director of the Board for Examination in the University of Chicago. The initial purpose of this framework was to classify test questions that faculty member shared. However, eventually it became so relevant and useful in education. Since then and up to the present, it is being used in planning the curriculum, planning learning activities and assessment

Bloom’s taxonomy of cognitive domain contains six levels progress from simple to more complex levels of thinking. The first three levels are: knowledge, comprehension and application which referred as “lower order thinking skills” and the last three levels are analysis, synthesis and evaluation which referred as “higher-order thinking skills”. (Lucas and Corpuz 2014).

After 45 years since the publication of Bloom’s taxonomy, Lorin Anderson and David Krathwol, Bloom’s former student and partner, revised the Bloom’s Taxonomy. There are some changes that have been made.

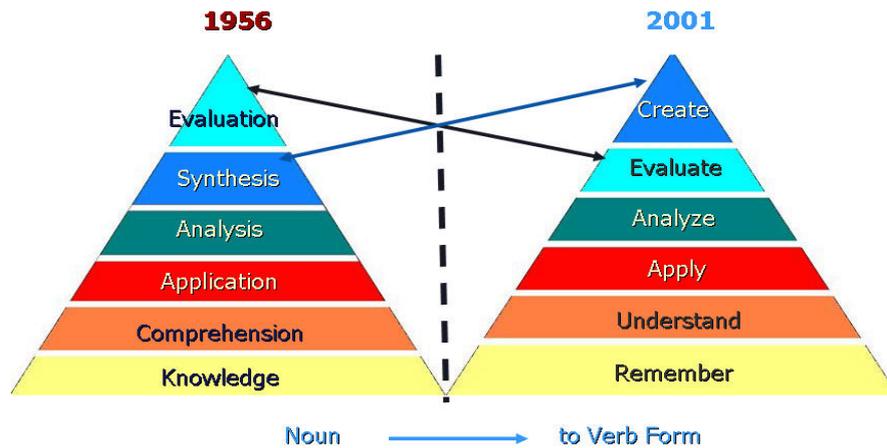


Figure 1. Bloom's Original Taxonomy vs. Bloom's Revised Taxonomy

Levels of thinking in the old taxonomy were nouns, while in the revised taxonomy they are verbs. The use of action words instead of nouns was done to highlight that **thinking** is an active process. The Bloom's revised taxonomy remains to be in hierarchical levels of increasing complexity. The **knowledge** level was changed to **remember**. The change was made because **knowledge** does not refer to a cognitive or thinking level. Knowledge is the object of the thinking. **Remember** is a more appropriate word for the first thinking level which involves recalling and retrieving knowledge. The **comprehension** level was changed to **understand**. **Synthesis** was changed to **create** and was placed as the highest level. The cognitive domain now includes two dimensions, the **cognitive dimension** and the **knowledge dimension**. The knowledge dimension of the revised taxonomy was based on the subcategories of knowledge in the old taxonomy.

The Knowledge Dimensions	Cognitive Processes					
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
Factual						
Conceptual						
Procedural						
Metacognitive						

Figure 2. Bloom's Revised Taxonomy

The cognitive dimension includes the hierarchical or ordered levels of thinking. The thinking levels move from the simplest to the most complex. The knowledge dimension includes four knowledge categories: factual, conceptual, procedural, metacognitive. The knowledge that teachers aim to teach and students aim to learn can be about facts, concepts, procedures and metacognitive (Lucas and Corpuz 2014).

Bloom's Revised Taxonomy provides educators with a common set of terms and levels about learning objectives that help in planning across subject matter and grade levels; it helps in the drafting of learning standards across levels; it serves as a guide in evaluating the school's curriculum objectives, activities and assessments; and it guides the teacher in formulating learning objectives that tap higher-order thinking skills (Lucas and Corpuz 2014).

There are some studies that have been conducted using Bloom's original taxonomy and Bloom's revised taxonomy of cognitive domain. One of these is the study of Rahpeyma and Khosnood (2015) entitled *The analysis of Learning Objectives in Iranian junior high school English textbooks based on Bloom's revised taxonomy*. The finding of this study showed that the first three low levels in Bloom's revise taxonomy were the most prevalent than higher learning levels in Iranian junior high school English textbooks.

Zareian, Davoudi, Heshmatifar and Rahimi (2015), Assaly and Smadi (2015), Dr. Olimat (2015), and Al-hasanat (2016) evaluate the questions in some various textbooks using Bloom's taxonomy of cognitive process. Their findings agree on that most of the questions found in those textbooks satisfy the lower levels of cognitive process. Those textbooks fail to engage learners in the questions requiring higher levels. Moreover, the study of Al-hasanat (2016) revealed a graphic disagreement between the percentages of the distribution to the textbook assessment questions and the suggested standard percentage of cognitive process levels.

In 2017, Mizbani and Chalak conducted two separate studies about the activities in the textbook *Prospect 3* through Bloom's revised taxonomy. Their first study focused on listening and speaking activities and the second one is all about reading and writing activities. These two separate studies revealed that most of the activities in textbook *Prospect 3* were categorized in the lower levels of cognitive process.

The literatures review presented above revealed that there are some studies that have been conducted regarding textbook's questions and activities however only one study that has been conducted about the textbook's learning objectives based on Bloom's and that was on 2015. Moreover, the studies presented above only focused on the cognitive dimension and neglecting the knowledge dimension of Bloom's revised taxonomy. Aside from that, the textbooks used to analyze in the previous studies were mostly English textbooks. So, to fill in the gap of the literature, the researcher aims to analyse learning objectives of two science textbooks in order to determine if they contribute to the development of higher-order thinking skills among the learners of grade 9. This study will answer the Research Questions below:

1. How are the codes of Bloom's revised taxonomy distributed in the Science Textbooks?
2. What knowledge dimension of Bloom's revised taxonomy is most dominant in the Science Textbooks?
3. What cognitive process levels of Bloom's Revised Taxonomy are more prevalent in the Science Textbooks?
4. Do the percentage of Science textbooks cognitive process level conforms in the standard percentages of cognitive process level suggested by Al-hasanat (2016)?
5. Which science textbook highlights higher-order thinking skills?
6. Is there a significant difference in the distribution of learning objectives based on the cognitive process level in the two Science textbooks?

Methodology

The present study was a descriptive and a mixed method study containing both qualitative and quantitative parts. In qualitative parts, the total number of learning objectives in two textbook were collected and codified based on the coding scheme of the study that was Bloom's Revised Taxonomy of Cognitive Domain. In quantitative parts, the frequencies and percentages of the codes as well as intra-rater, inter-rater reliability and chi square test of homogeneity were calculated.

Two Science textbooks for grade 9 were used in this study. The first textbook was entitled *Science Learner's Module 9*, First Edition 2014 which was collaboratively written by Liza Alvarez, Dave Angeles, Hernan Apurada, Ma. Pillar Carmona, Oliver Lahorra, Judith Marcaida, Ma. Regaele Olarte, Estrella Osorio, Digna Paningbatan, Marivic Rosales, and Ma. Teresa Delos Santos. It was published by the Department of Education and printed by FEP Printing Corporation in Pasig City. This textbook was prescribed by the Department of Education for the 9th grade students in all public schools in ARMM in line with the MMA Act No. 279 Article 2, Sec. 18c stated that DepEd-ARMM shall develop appropriate curricula, quality textbooks, and teaching materials.

Second textbook used was entitled *Science Links 9*, Seamless K-12 Edition 2014 which was written by Jonna Abistado, Meliza Valdoz, Marites Aquino and Mary Anne Bascara published by REX Book store and printed by REX Printing Company, Inc. in Quezon City. REX Book store is a private publishing house. This textbook is used by some of the private schools in the Philippines.

The instruments of the study were the cognitive process dimension and knowledge dimension of Bloom's Revised Taxonomy of Cognitive Domain. When we write a learning objective, the level of thinking or cognitive process is represented by the verb, while the knowledge dimension is represented by the noun. The thinking levels move from the simplest to the most complex. It is in the hierarchical levels of increasing complexity.

The levels are remember, understand, apply, analyse, evaluate and create. *Remember* is retrieving relevant knowledge from long-term memory. *Understand* is construct meaning by connecting "new" to "prior" knowledge. *Apply* level is carrying out or using a procedure in a given situation. *Analysis* is breaking materials into its constituent parts and detecting how parts relate to one another and to an overall structure or purpose. *Evaluate* is making judgements based on criteria and standards and *Create* is putting elements together to form a coherent whole. (Lucas and Corpuz 2014) The table below is a collection of verbs used to address the different levels of cognitive process dimension.

Table 1. Collection of verbs used in six levels of Bloom's Revised Taxonomy

Remember	Understand	Apply	Analyse	Evaluate	Create
Recall	Interpret	Execute	Differentiate	Check	Generate
Recognize	Exemplify	Implement	Organize	Critique	Plan
Name	Classify	Use	Attribute	Assess	Produce
List	Summarize	Solve	Compare	Debate	Change
State	Infer	Construct	Contrast	Defend	Design
Tell	Compare	Practice	Distinguish	Dispute	Formulate
Reproduce	Explain	Demonstrate	Investigate	Judge	Improve
Identify	Translate	Dramatize	Infer	Appraise	Plan
Locate	Discuss	Calculate	Separate	Check	Propose
Write	Describe	Measure	Sequence	Decide	Invent
Find	Report	Convert		Justify	Devise
Underline	Predict			Rate	Generate
Define	Illustrate			Determine	Compose
	Relate			Interpret	Combine
					Construct
					Make

Knowledge dimensions include four knowledge categories: factual, conceptual, procedural, and metacognitive. Factual is the basic elements that students must know. Conceptual is the interrelationships among the basic elements within a larger structure that enable them to function together. Procedural is the knowledge on how to do something. It is a method of inquiry, criteria for using skills, algorithms, techniques and methods. Metacognitive knowledge is the knowledge of cognition in general as well as awareness and knowledge of one's own cognition. (Lucas and Corpuz 2014) The table 2 illustrate the subcategories of each knowledge dimension.

Table 2. Guidelines in the Knowledge Dimension of Bloom's Revised Taxonomy

Factual	Conceptual	Procedural	Metacognitive
<ul style="list-style-type: none"> Terminology Symbols Specific details Specific elements 	<ul style="list-style-type: none"> Classification Categories Principles Generalizations Theories Models 	<ul style="list-style-type: none"> Skills Algorithm Techniques Methods Criteria for judgement 	<ul style="list-style-type: none"> Strategies for learning Knowledge about cognitive task Self-knowledge

The total number of learning objectives in two textbook were collected. There are 200 learning objectives found in *Science Learner's Module 9* and 102 Learning objectives in *Science Links 9*. These learning objectives were analysed and codified according to the coding scheme of the study. The coding schemes that were used are as follows:

Table 3. The Coding Scheme Based on Bloom's Revised Taxonomy

Knowledge Dimension	Cognitive Process Dimension					
	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
A. Factual	A1	A2	A3	A4	A5	A6
B. Conceptual	B1	B2	B3	B4	B5	B6
C. Procedural	C1	C2	C3	C4	C5	C6
D. Metacognitive	D1	D2	D3	D4	D5	D6

The coding categories were labelled as A1 or remembering the factual knowledge, B1 or remembering the conceptual knowledge, C1 or remembering the procedural knowledge, D1 or remembering the metacognitive knowledge, A2 or understanding the factual knowledge, B2 or understanding the conceptual knowledge, C2 or understanding the procedural knowledge, D2 or understanding the metacognitive knowledge, A3 or applying the factual knowledge, B3 or applying the conceptual knowledge, C3 or applying the procedural knowledge, D3 or applying the metacognitive knowledge, A4 or analysing the factual knowledge, B4 or analysing the conceptual knowledge, C4 or analysing procedural knowledge, D4 or analysing metacognitive knowledge, A5 or evaluating the factual knowledge, B5 or evaluating the conceptual knowledge, C5 or evaluating the procedural knowledge, D5 or evaluating metacognitive knowledge, A6 or creating factual knowledge, B6 or creating conceptual knowledge, C6 or creating procedural knowledge, and D6 or creating the metacognitive knowledge.

In the example of learning objectives, “*at the end of the lesson, the learners will be able to explain the photosynthesis process,*” **explain** is an action word which will fall under the second cognitive process level **understand**, and **photosynthesis process** is the noun that will fall under the **procedural knowledge**. So this learning objective will be coded as *C2 which mean understanding the procedural knowledge*.

After codifying the learning objectives, the frequency and percentage of each learning objectives for each level were calculated. In Inter-rater reliability, one analyst was invited and introduced the procedure. The analyst was Dr. Jemo A. Palacio. He is a college instructor II in Lanao Agricultural College of Lumbatan, Lanao del Sur. He codified about 25% of the learning objectives. In intra-rater reliability, the researcher codified 25% random samples of the learning objectives again within a span of two weeks. Then the agreement between those two codifications will be calculated.

Results and Discussion

The *Science Learner's Module 9* have a total learning objectives of 200 but only 191 were codified based on the coding scheme of the study because the remaining learning objectives were classified belong to affective and psychomotor domain of learning.

Table 4. The Frequency of Learning Objectives Codification in *Science Learners' Module 9*

Knowledge Dimension	Cognitive Process Dimension						
	1. Remember	2. Understand	3. Apply	4. Analyse	5. Evaluate	6. Create	
A. Factual	16	12	2	4	3	3	40
B. Conceptual	9	51	8	8	2	1	79
C. Procedural	12	16	21	5	4	0	58
D. Metacognitive	0	4	0	2	1	7	14
Total	37	83	31	19	10	11	191

Table 4 indicates that *Science Learner's Module 9* textbook contains various codes of learning objectives. The most frequent code was B2 (understanding conceptual knowledge) that has a frequency of 51, followed by C3 (applying procedural knowledge), C2 (understanding procedural knowledge), A1 (remembering factual knowledge) and A2 (understanding factual knowledge). The code of D1 (remembering metacognitive knowledge), D3 (applying metacognitive knowledge) and C6 (creating procedural knowledge) were missing in the said textbook. And the remaining codes emphasis too little.

Table 5. The Frequency of Learning Objectives Codification in *Science Links 9*

Knowledge Dimension	Cognitive Process Dimension						
	1. Remember	2. Understand	3. Apply	4. Analyse	5. Evaluate	6. Create	
A. Factual	12	7	6	4	2	2	33
B. Conceptual	4	22	0	3	2	0	31
C. Procedural	2	6	9	1	3	0	21
D. Metacognitive	0	5	1	0	0	3	9
Total	18	40	16	8	7	5	94

For the second textbook entitled *Science Links 9*, a total of 102 learning objectives were collected but only 94 were codified. The table 5 revealed that out of 24 codes of Bloom's taxonomy, 18 codes were available in the said textbook. B2 (understanding conceptual knowledge) was the most dominant code with a frequency of 22, followed by A1 (remembering factual knowledge), C3 (applying procedural knowledge), A2 (understanding factual knowledge), A3 (applying factual knowledge), C2 (understanding procedural knowledge). The code of D1 (remembering metacognitive knowledge), D4 (analysing metacognitive knowledge), D5 (evaluating metacognitive knowledge), C6 (creating procedural knowledge), B6 (creating conceptual knowledge) and B3 (applying conceptual knowledge) were neglected in the textbook. And only few emphases for the remaining codes.

Regarding the first research questions, the finding of this study revealed that the codes of cognitive process level of Bloom's revised taxonomy were widely dispersed in these two Science textbooks. However, the codes of B2, C3, C2, A1 and A2 were dominated in the first textbook which is *Science Learner's Module 9* whereas the codes of B2, A1, C3, A2, C2 and A3 were also dominated in the second textbook which is *Science Links 9*. . The code of D1, D3, and C6 were not found in the first textbook. On the other, D1, D4, D5, C6, B6, and B3 were also neglected in the second textbook. As we can see, most of the codes found were classified as lower level of cognitive process. Only few learning objectives coded as higher level.

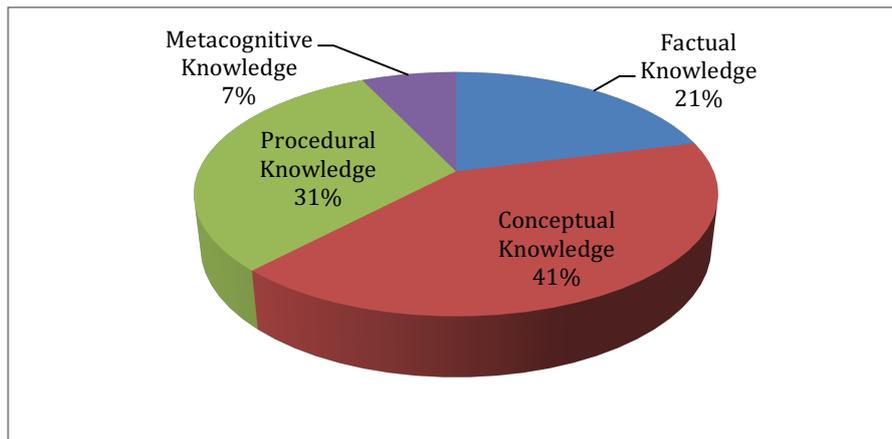


Figure 2. Percentage of Knowledge Dimension in Science Learner's Module 9

The figure 2 above illustrates the distribution of knowledge dimension in the first textbook *Science Learner's Module 9*. As shown, the factual knowledge has a percentage of 21%, conceptual knowledge has 41%, procedural knowledge has 31%, and metacognitive knowledge has 7%. The most dominant knowledge dimension in the said textbook was the conceptual knowledge.

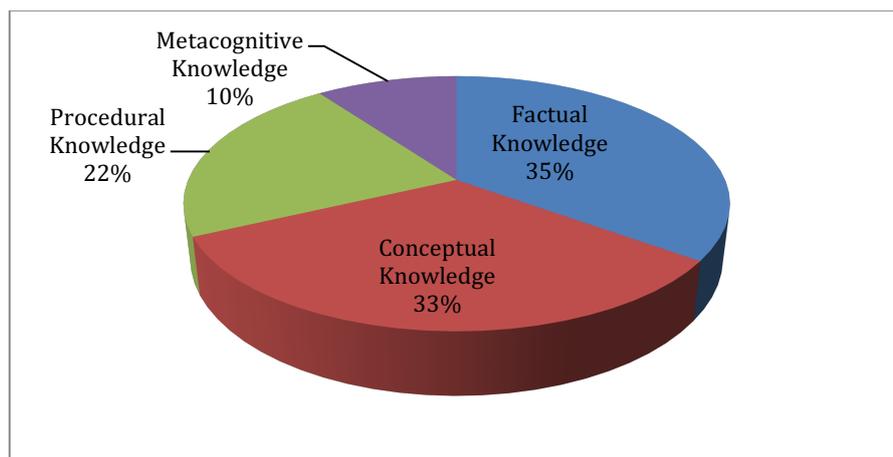


Figure 3. Percentage of Knowledge Dimension in Science Links 9

In *Science Links 9*, the figure 3 shows its distribution percentage of knowledge dimension. The factual knowledge has 35%, the conceptual knowledge has 33%, procedural knowledge has 22% and metacognitive knowledge has 10%. So, the most dominant knowledge dimension in this textbook was the factual knowledge.

Regarding the second research question, the two Science textbooks do not agree on the distribution of the knowledge dimension. The more prevalent knowledge dimension in *Science Learner's Module 9* was conceptual knowledge whereas factual knowledge in *Science Links 9*.

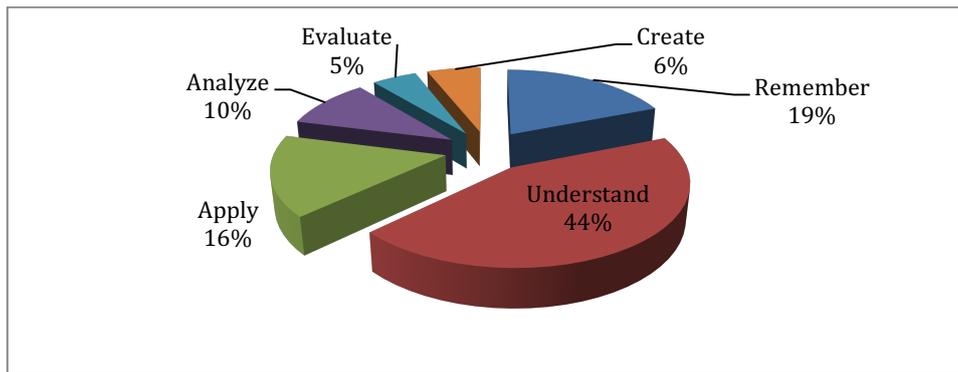


Figure 4. Percentage of Cognitive Process Level in Science Learner's Module 9

The figure above demonstrates the distribution of cognitive process level in *Science Learner's Module 9*. The remember level has a total percentage of 19%, the understand has 44%, apply has 16%, analyze has 10%, evaluate has 5% and the most complex level which is create has 6%. As shown above, the more prevalent level was *understand*, followed by the level of *remember* and then the *apply* level. These three levels were classified as lower level of cognitive process based on Bloom's revised taxonomy.

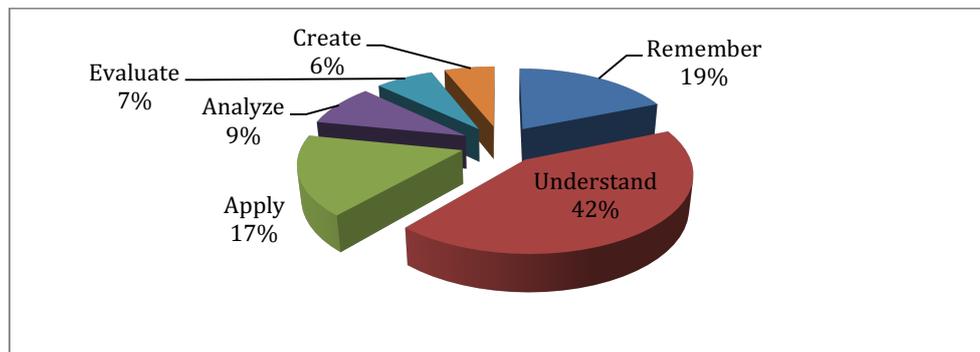


Figure 5. Percentage of Cognitive Process Level in Science Links 9

Figure 5 illustrates the distribution percentage of cognitive process level in *Science Links 9*. The remember level has a percentage of 19%, understand has 43%, apply has 17%, analyse has 9%, evaluate has 7% and create has the least percentage of 5%. As we can see in the figure that the more prevalent level was *understand* and then followed by *remember* and *apply* level.

For the third research question, the finding of this study revealed that the more prevalent levels of cognitive process found in the two science textbook agreed on the second level of cognitive process dimension which is *understand* and then followed by *remember* and *apply* level.

In the study of Al-hasanat (2016), he developed a standard percentage of the levels of aims of the knowledge domain based on the reference of Bloom's original taxonomy. Al-hasanat used his experience in the field and consulted some specialists. These percentages were organized in a questionnaire that was judged by professors, researchers, associated professors and assistant professors in the field of instruction and curricula while other specialist work in supervision in addition to some Arabic language teachers. The means of these percentages were calculated and introduced in a final version listed in Table 6 below.

Table 6. Standard Percentages of the Levels of Aims of the Knowledge Domain

Remembering	Comprehension	Application	Analysis	Synthesis	Evaluation	Total Percentages
25%	21%	19%	15%	12%	8%	100%

The suggested standard percentage was going in a regressive sequence that starts with remembering 25% and ends with the percentages of 8% representing evaluation. Based on the table above, it shows that the lower levels should be comprised of 65% and 35% intended for higher levels of cognitive process. Now, to compare the two science textbooks with the suggested standard percentage, the figure 6 below was developed.

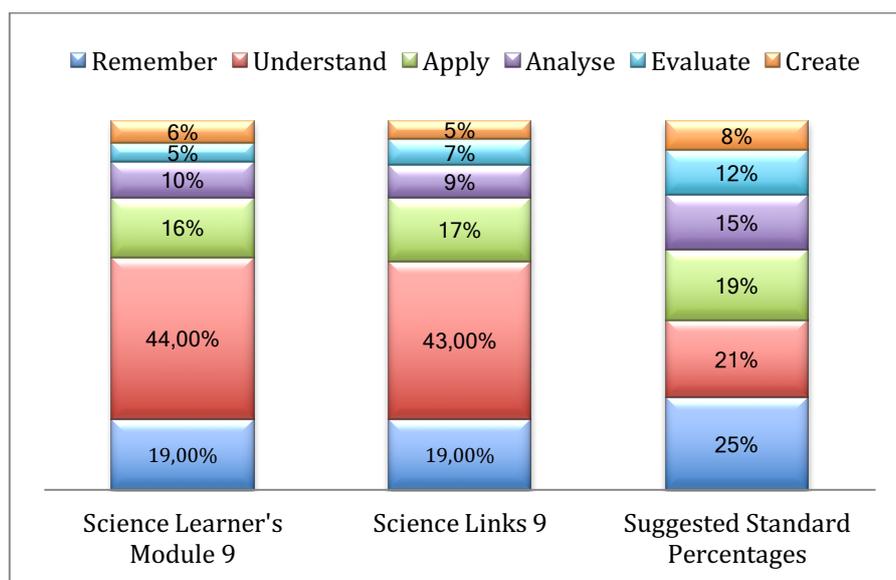


Figure 6. Comparison of two science textbooks with the suggested standard percentage of cognitive process level

To answer the fourth research question, it is clearly shown that the percentages of cognitive process level in two science textbook do not conform with the Al-hasanat's suggested standard percentages. There was a high difference between them. The two science textbooks emphasis too much on *understand* level. The *Science Learner's Module 9* has more percentage on the level of *create* over the *evaluate* level.

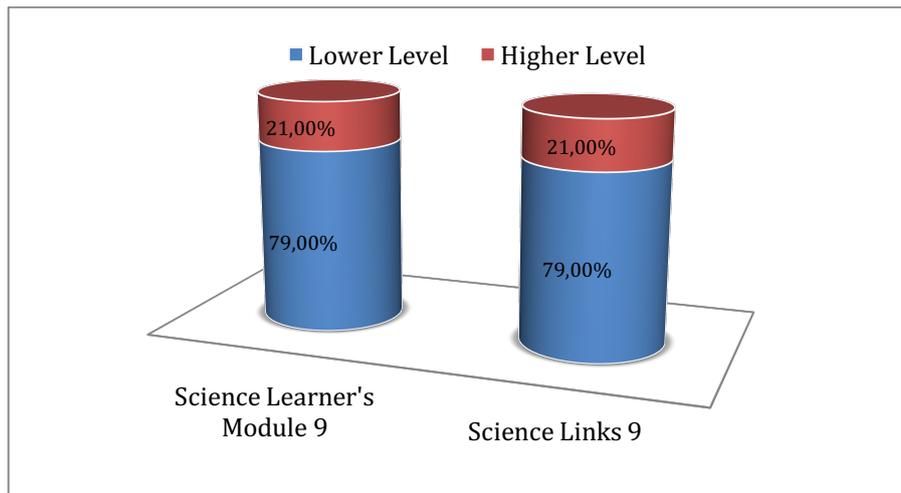


Figure 7. A comparison of two Sciences Textbooks

The *Science Learner's Module 9* consists of many hands-on activities. It has a total of 200 learning objectives. On the other hand, *Science Links 9* was dominated by lessons and notes, only few hands-on activities can be found in the said textbook and it has only 102 learning objectives. The two Science Textbooks differ in presentation of its learning objectives however they agree on the division of lower level and higher level of cognitive process level. The percentages on lower and higher level were exactly the same as shown above.

To answer the fifth question, the figure 7 shows that the two sciences textbook have the same result. In other word, they highlight higher order thinking skills equally.

Now, to find out if there is a significant difference in the distribution of learning objectives based on the cognitive process level in the two Science textbooks, the chi square test of homogeneity was calculated and the result was shown below.

Table 7. Chi Square Test Result

$\alpha = 0.05$	Df = 5	$X^2 = 3.8$	Critical Value = 11.071
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The null hypothesis was that the two Science textbooks have no significant difference in the distribution of learning objectives in terms of the cognitive process level of Bloom's revised taxonomy. The chi square test X^2 of the two science textbooks fall inside the area of non-rejection. Therefore, the null hypothesis was accepted. This means that the two Science textbooks have no significant difference in the distribution of cognitive process level of Bloom's revised taxonomy. This answered the last research question.

For the result of inter-rater reliability, the agreement between the codification of the researcher and the analyst was about 76%. It means that the two codifications disagree on 24% of the sample learning objectives. For the intra-rater reliability, the agreement between the two codifications was 92%. The 8% of the learning objectives in two codifications disagree.

Conclusion and Recommendations

Based on the study, the coding schemes of Bloom's revised taxonomy were widely dispersed in two Science textbooks. However, the distribution was not balance. Some of the codes emphasis too much, some were not and some were definitely neglected. The codes that were emphasis too much were all classified as lower level of

cognitive process. Moreover, the codes also revealed that Science textbooks were loaded of factual and conceptual knowledge. Only few attention was given on to the metacognitive knowledge.

To conclude with, the most prevalent cognitive process level found in these two Science textbooks was the second level which was **understand** and the most dominant knowledge dimension was **conceptual knowledge**. Therefore, it can be said that the two Science textbooks emphasize “understanding of conceptual knowledge”. These findings coincide in the K-12 Science Curriculum Guide that stated to pave a way to a “deeper understanding of core concepts”.

So, if the science textbooks only focus on the understanding of core concepts, then there is a contradiction between the prescribed learning competencies of the textbooks and the K-12 envisions. How will the K-12 curriculum develop a scientifically, technologically, and environmentally literate and productive members of society who are critical problem solvers, innovative and creative citizens, informed decision makers and effective communicators when the prescribed learning competencies only aim to developed lower-order thinking skills among the learners?

Having lower levels than higher level of learning objectives should not affect the judgement on the textbooks. As cited by Assaly and Smadi (2015), Bloom (1956) emphasized the importance of offering lower level information to students as a basis to move to upper levels of cognition. According to Al-hasanat (2016), “what is required is not to make the percentages equal but also not to concentrate on one level and to neglect the other levels.”

Bloom and his colleagues said both remembering and understanding levels are both foundation and broad – based access to other higher levels, where each level is a foundation and starting point for subsequent levels that follow it. Bloom suggests the gradual and balanced transition from one level to the other level. This transitional movement should meet the growth requirements of each level and eliminate any gaps during learning to guarantee sustainable and stable cognitive structure (Al-hasanat 2016).

The grade 9 learners have an average age range from 14-16 years old. At this age, they now belong to the formal operational stage (11 years old & above) of Jean Piaget Cognitive Development Theory. In this stage, learners begin to think abstractly and reasons about hypothetical problems. The ability to systematically plan for the future and reason about hypothetical situations are also critical abilities that emerge during this stage. Jean Piaget insisted that the formal operational stage is the final stage of cognitive development. Hence, it is very important to give more attention for the development of higher-order thinking skills at this stage because it is where the lifelong intellectual development formally started.

Therefore, it can be concluded that these two science textbooks were inadequate in developing higher order thinking skills among the students of 9th graders. Thus, the researcher recommends that teacher should not depend on the textbook as a sole source of instructional syllabus. Instead, they need supplementary activities that promote higher order thinking skills. Textbook designers need to modify the learning objectives of the textbook. There should be regressive sequence from one level to the other level of Bloom’s revised taxonomy of cognitive process in order to meet the development of HOTS among the learners. Moreover, there should be a balanced distribution of knowledge dimension of Bloom’s revised taxonomy. The researcher believes that promoting metacognitive knowledge can also enhance the higher-order thinking skills of the learners. The Department of Education might need to double check the content of the prescribe textbooks used nationwide in order to determine if it helps in promoting citizen that are critical thinkers, problem solvers, innovative and creative citizens, decision makers and effective communicators as the k-12 science curriculum entails. The DepEd must ensure the consistency between their visions and to their prescribed learning competencies. The National Book Development Board should see to it that the textbooks published were not only high quality and globally competitive but also promote higher-order thinking skills. Affective and psychomotor domains of Bloom’s taxonomy could also be studied in science textbooks. Further research might be conducted towards the learning objectives of other textbooks using the frame work of the study in order to explore their levels of cognitive process and its distribution of knowledge dimension.

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The Role of the Adult Educator in Eliminating Internal Psychological Barriers in Adult Learning

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Abstract

The aim of this research is to examine, on the one hand, the internal learning barriers for adults that are derived from their emotions about their educational programme, and on the other, the role of the adult educator in eliminating these obstacles. Emotions are integrally linked to the learning process and influence the successful outcome of educational goals. As a result of the steadily increasing number of lifelong learning educational programmes, research into the emotions of adult learners is valuable as they differ significantly to those of younger students. At the same time, the role of the adult educator cannot be merely to transmit knowledge, but must also promote and motivate learning. The sample consisted of 102 adults attending either postgraduate programmes or training sessions during the time of the study. The quantitative data collection comprised 92 questionnaires, while the qualitative consisted of 10 semi-structured individual interviews. In this study mixed method design was used, where quantitative and qualitative methods were implemented for triangulation of the results. The research findings indicate that although adult learners do experience feelings of anxiety, insecurity, worry and frustration during their studies, most times, these negative emotions are not so intense as to impede study completion because motivation is a much stronger factor. Regarding adult learners' perception of the role of the adult educator, the findings show discrepancy between what they expect from the instructor and what the instructor is actually doing. The adult learners wanted the instructor to create a positive communication climate and learning environment, adapt the level of teaching to their experiences and abilities, encourage them, employ active participatory learning techniques, as well as have emotional intelligence and express empathy.

Keywords: Adult Educator, Internal Learning Barriers, Learning Climate, Educator's Teaching Skills, Educator's Communication Skills

1. Introduction

Rapid technological and scientific developments in conjunction with globalisation have created new economic and social conditions that require adults to continually upgrade their knowledge and skills (Kokkos, 2008). Thus, participation in adult education and lifelong learning programmes is considered an essential response action to meeting these new conditions. Although a fair number of studies have investigated, on the one hand, the motivational factors in adult learning participation and their enhancement, and on the other, the deterrents to participation and their elimination, only a few studies have dealt with obstacles that arise during an educational course, since most researchers seem to be more concerned with the factors that impede adult participation. Still

fewer researchers have dealt with the study of internal learning barriers stemming from psychological factors (Radovan, 2012) since the subjective aspects of these factors, and particularly emotions, makes them difficult to define and measure in terms of behaviours and attitudes (Kokkos & Lionarakis, 1998). The importance of emotions in cognitive functions has only recently been recognised, thus one cannot be engaged in adult education without making reference to the pivotal role that emotions play in the learning process (Cleveland-Innes & Campbell, 2012; O'Regan, 2003; Shuck, Albornoz & Winberg, 2007). Adult learners, being older than the conventional age range of 18-22-year-old tertiary education students, bring with them different life experiences, skills and knowledge that impact their learning expectations and approaches. In the present study, we focused on the examination of emotional deterrents that hinder already motivated adults in post-graduate educational programmes and the role of the adult educator in eliminating these negative feelings.

1.1 Types of barriers

In accordance with various studies (Johnstone & Rivera, 1965; Cross, 1981; Caffarella & Merriam, 1999; Falasca, 2011; Radovan, 2012), barriers are divided into two categories: external, which the individual cannot control, and internal which reflect the individual's personality. More specifically, external barriers are further divided into two sub-categories: situational and institutional. Situational barriers include age, changes in personal and family life, time constraints, economic circumstances, lack of available childcare options, working hours, or the long distance from the location of the educational institution. Institutional barriers include programme duration, follow-up hours, programme flexibility, entrance criteria, the way the educational institution has organised the adult education programme, i.e., sufficient or lack of information, and the like. The category consisting of dispositional, internal barriers is the most difficult in terms of management, since these comprise the learner's own resistances, stemming from obstacles they themselves have set, either consciously or unconsciously. Cross (1981) and National Center of Education Statistics (1998) list the following factors as internal barriers: stress, insecurity, fear of inadequacy, negative past experiences, lack of self-esteem and low self-confidence, the desire of adults to know the precise educational outcomes, and skepticism about the value of adult education.

1.2 Internal learning barriers

Internal barriers can have their basis in knowledge and perceptions, as well as psychological factors. An individual's set of knowledge that has been acquired throughout life, influences the particular way they engage in learning (Caffarella & Merriam, 1999; Galbraith, 1990). Additionally, adults have a crystallised system of perceptions, values, and beliefs with which they view and interpret reality. This system has been shaped by the individual's personal life experiences and the cultural capital accumulated within the socio-economic-cultural context of their socialisation (Bourdieu, 1985). They comprise elements of their personality and worldview with which they balance their inner quest with the external environment. For this reason, if these perceptions are questioned by the educator or their co-learners, the individual may feel that their character and judgment are being attacked, thus creating negative feelings. Barriers stemming from psychological factors are related to permanent personality traits, such as lack of self-esteem and low self-confidence, which result in defeatism and the debasement of an adult's skills. They can also be associated with anxiety, whose symptoms can range from simple concern or slight insecurity to a full anxiety disorder (Kokkos, 1998). Learners with low self-esteem have very little confidence in their abilities, are afraid to take risks or attempt new things, feel threatened by novel situations or new educational techniques, easily lose their desire to learn, and avoid what they think will cause them disappointment. They are usually characterised as being introverted and antisocial (Cigman, 2009; Jabari, Rajeswar & Sheykhjan, 2014). Adult learners experience particularly intense feelings of anxiety and insecurity during assessment, when they submit work or are taking exams because then they feel that their weaknesses in educational skills will be revealed. At the same time, they feel fear because they have again assumed the status of student (Rogers, 1999)

1.3 The role of the adult educator in alleviating internal learning barriers

The adult educator plays a key role in addressing the issue of internal learning barriers, namely, by not operating as a mere transmitter of academic knowledge (Knowles, 1970; Tait, 2003), but by actively creating an effective learning environment in which learners feel comfortable physically, socially, and emotionally and where they are

assured that their diversity is respected and appreciated (Polemi-Todoulou, 2005). Even in a positive classroom climate, the educator needs to pay attention to covert learning barriers that may exist. Through direct enquiry, the educator can identify adult learners' needs, wants, expectations, and feelings, which may not always be explicit or conscious (Tsiboukli, 2012; Tsiboukli & Phillips, 2008). For this reason, it is important to involve learners in the design of the educational programme, as they are in a process of self-determination and empowerment (Courau, 2000; Falasca, 2011; Rogers, 1999). In a safe and positive environment, the educator, as facilitator, encourages learner co-operation, initiative, mutual trust, honesty and acceptance, which allows the individual group members to express their spontaneity and creativity (Kokkos, 1998; Galbraith, 1990). This can be achieved through the implementation of active learning techniques, which depending on the subject matter and learners' characteristics can include discussions, brainstorming, role-play, group work, etc., and can promote an exchange of both experiences and feelings (Noye & Piveteau, 2016), as well as constructive feedback. Internal learning barriers can also be eliminated through the good communication skills of the educator (Pritsi, 2016). Being empathic, being able to step into the other person's shoes, listening to and understanding the learners' feelings, needs, and perceptions, showing genuine concern for the learners' fears and anxieties without identifying with them, being flexible by adapting the level or type of teaching (Davis, 2018; Goleman, 1995) contribute to developing a positive learning atmosphere. When the educator becomes an active listener, not only through the sense of hearing but by also applying all the other senses, he/she builds a bridge of communication which enables individual as well as interpersonal problems within the group to be successfully dealt with (Courau, 2000; Vella, 2002). Last but not least, another key factor which helps dispel negative emotions that impede the learning process is the educator's emotional intelligence. In other words, having the ability to understand learners' feelings and knowing how to work with them, reacting appropriately to their disposition, motivations and desires, and using emotional information as a guide to thought and behaviour (Goleman, 1995). The aim of the research study was to examine learners' perception of the role of the adult educator in alleviating learners' internal barriers arising from psychological factors. More specifically, the study objectives were to first identify the emotions that comprise barriers to adult learning, and second, to investigate learners' perception of the role of the educator in eliminating the internal barriers, through the two following research questions: 'Which are the emotions that comprise barriers in adult learning?' and 'What is the role of the adult educator in eliminating those emotions in learners which negatively affect the learning process?' The research findings can contribute to the body of knowledge in the literature on the role of the adult educator (Giastas, 2008) and the design of educational programmes and training seminars for educators. Following the Introduction in section 1, which includes the types of barriers, the identification of internal barriers, the role of the adult educator in eliminating learning barriers and the aims of the research, is section 2, which outlines the methodology and structure of the study by describing the research tools, the sample, and research validity. Sections 3 and 4 present an analysis and discussion of the findings, respectively while in the concluding section the overall results are summarised.

2. Method

In this study, a mixed method approach was used, where both quantitative and qualitative data were collected and analysed for triangulation of the results, which provides a better understanding of the research problem (Creswell, 2011; Karalis, 2013). The research tool for quantitative data collection was a questionnaire based on the research questions consisting of 60 items of closed questions divided into 3 sections. The questionnaire was sent to 102 participants by e-mail. Before the bulk dispatch of the questionnaires, a pilot study was conducted to identify errors and ambiguities of the research tool and to ensure the reliability and validity of the results. The research tool for qualitative data collection was a semi-structured interview given to 10 participants individually lasting 20 minutes. After getting the verbal consent of the participants, a suitable location was chosen, either in our office or theirs, to ensure there was quiet and comfort to assist the participants to express themselves freely. The aim of the study, the duration of the interview, and the plans for future utilisation of the results were explained to the participants, while confidentiality of the data was also stressed. The need to respond sincerely and spontaneously to the questions of the interview was highlighted. The interviewers kept notes of the responses and followed the structure of the interview closely. The research data were processed using the text

analysis method, where the raw data from transcribed interview texts were coded and categorised. The research study was conducted in the first half of 2018.

2.1 Sample

The target population was a total of 102 adult learners who were attending or had recently completed training courses or postgraduate programmes in the school year 2017-2018. The criteria of having recently completed the course was so that the participants would be able to reproduce the emotions felt during their studies with credibility, since as time passes, one tends to forget their actual feelings or emotions. Ninety-two (92) completed questionnaires and ten (10) gave a semi-structured interview. Non-probability convenience sampling was employed. The population came from the researchers' work (3 high schools and 3 hospitals in Metropolitan Thessaloniki) consisting of adult learners enrolled in postgraduate programmes in Educational Sciences, and Healthcare Management who volunteered and were available (Creswell, 2011; Robson, 2010). Despite the drawbacks of convenience sampling, such as the inability to generalise research findings, and its vulnerability to selection bias, it nevertheless has the advantages of simplicity of sampling, low-cost implementation, as well as speed and facilitation of data collection, which was the best option in the present situation (Saunders, Lewis, & Thornhill, 2012)

2.2 Research reliability and validity

Research reliability and validity was attempted by standardising the procedures and calculating the Cronbach Alpha internal consistency at a value higher than 0.70. More specifically, the electronic questionnaire was sent to all 102 participants at the same time, and instructions and clarification for completion were included in writing on the questionnaire. No further clarification was given individually to any participant, nor was any individual invitation made to a participant to complete the questionnaire if they did not want to. Each participant could complete only one questionnaire. Also, it was attempted to give the same instructions and clarifications in the interviews so as to ensure that no participant had more information than the others.

3. Results

3.1 Demographic figures

In the quantitative study, 81.5% of the participants were female and 18.5% were male. The majority of respondents (40.2%) fell in the age group '41 – 50', followed by 32.6% in the '31 – 40' age group, the 'over 51 years old' age group was at 15.2%, and the '20 – 30' age group was the lowest at 12%. The educational level of participants was as follows: 64.1% had a Master's degree, 30.4% had a University degree, while 5.4% had a Ph. D. degree. All of them were doing another Master's degree that was more relevant to their professional tasks. The majority of participants (60.2%) were married with children, whereas their main partners were single without children. In the qualitative study, out of the ten participants interviewed: six were females and four were males; six were in the '41 – 50' age group and the other four in the '31 – 40' age group; nine were attending a Master's programme, while one (female) was in the final year of an undergraduate course in European Culture at the Hellenic Open University, and eight were married with children, while the other two were single without children.

3.2 Emotions that comprise barriers to adult learning

As illustrated in Table 1, professional and family responsibilities were a barrier, as they create anxiety, stress and other negative feelings, to a relatively large extent for 44.6% and 34.8% of participants respectively. A high 63% of participants considered that they can acquire new knowledge and skills to a great extent especially when these rely on pre-existing knowledge and experiences. Almost half (49%) of adult learners stated that they experienced anxiety to a high degree when they had to present work to the rest of the class, while over half (54.3%) stated that the high degree of anxiety intensified when they had to take exams. While 44.6% of participants noted they felt moderate anxiety that they might fail, almost double (88%) stated that they had a small degree of feelings of insecurity about their ability to meet the requirements of the educational programme. Research participants appear to have high self-confidence since, 42.4% stated that they felt confident about themselves, set high goals but knew their limitations and had good relations with the other group members.

Almost half (47.8%) of adult learners said that during the post-graduate or training study programme they never felt the need to quit.

	mean	standard deviation
1. I feel that further education is not appropriate for my age	1.6087	0.94876
2. I think adult education does not offer anything	1.5543	1.17074
3. At the moment my job is my main priority	3.1957	1.00809
4. My family obligations limit the amount of time that I can devote to my education	2.9783	1.14813
5. I believe that a good memory is necessary in learning	3.3152	0.98259
6. I feel intellectually drained and I cannot concentrate	2.7935	1.07456
7. I can acquire new skills	3.8370	0.85520
8. I can understand new knowledge when it is transmitted through rules I know from the past	3.6196	0.76808
9. It is difficult for me to change my opinion on things	2.0761	0.72980
10. I accept information that is consistent with my own perceptual system more easily	3.3043	0.82194
11. I feel worried when I am going to make a presentation	3.4239	1.15057
12. I feel anxious when I am going to take an examination	3.5978	1.16788
13. I am afraid that I will be ridiculed in front of my co-learners	2.4674	1.20850
14. I feel insecure about my ability to meet the program requirements	2.3261	1.07016
15. I feel anxious when doing work that require creativity and original thinking	2.3804	1.12750
16. I feel anxious when participatory techniques are used	2.0870	1.14501
17. I feel anxiety that I might fail	2.5870	1.12075
18. It is easy for meto express my feelings	2.9457	0.96492
19. I feel fear when I am not treated like an adult learner	2.1413	1.06473
20. I set high goals because I think I can achieve them	3.3152	0.93679
21. I set goals that I can achieve because I know my limits	3.5000	0.87077
22. I accept my failures	3.3261	0.84005
23. I do not hesitate to express opinions contrary to those prevailing in the group	3.0870	1.02338
24. I have good relations with the rest of the group	3.7174	0.82975
25. I feel confident about myself	3.4674	0.80454
26. It is difficult for me to express my ideas to others	2.0109	0.88323
27. I feel safe when the instructor has control of the group	3.2717	0.90303
28. I identify with other members of the group who are considered competent	2.9674	0.88269

3.3. The role of the adult educator in eliminating internal barriers based on psychological factors

In Table 2, it can be seen that the majority (71.8%) of participants to a high degree wanted the educator to show interest in them and to encourage them to participate in the educational process. A high percentage (77.1%) of adult learners said they felt better when the educator is seen as a member of the group, and the vast majority (95.7%) felt better when a cooperative, team spirit prevailed. This positive climate resulted in 85.9% feeling satisfied with their participation in the group. Non-verbal communication seems to be an important factor, as 76.8% of the participants felt the need to a high degree to be encouraged by their educator with non-verbal cues. According to 91.4% of participants, learning barriers can be eliminated with individual constructive feedback.

When learners are frustrated because they feel they will not succeed, 93.5% expect their educator to motivate them to a high degree in order for them to continue. Three quarters(75%) of the participants stated that they wished that their instructor understood their feelings, and was empathic.

	mean	standard deviation
1. The educators should show personal interest in and care for group members		
2. The educator should encourage group participation in the educational process	4.0326	0.88269
3. The educator should involve learners in the design of the lesson with the free expression of their needs and expectations	4.3043	0.67513
4. The educator should keep the interest and attention of the group unchanged at each educational meeting	3.9891	0.84508
5. The educator should be enthusiastic about the subject they teach	4.3587	0.65602
6. The educator should be regarded by the group as a member	4.3043	0.76660
7. Group members should be required to get the educator's permission before they talk	4.0217	0.83834
8. The educator should be seen as a figure of authority by the group members	2.7609	1.05215
9. The educator should have confidence in the group members	1.9130	0.90968
10. There should be team spirit and co-operation between the members of this group	4.2391	0.66909
11. Group members tend to hide their feelings from one another	4.5109	0.58356
12. Group members should be able to discuss personal/family issues in the group	1.5543	0.80335
13. There should be pressure to comply with the group		1.01987
14. Members should need the group's approval for their decisions before they put them into practice	2.2826	0.89719
15. I should feel content participating in this group	2.2500	1.02151
16. The educator should have eye contact with the learners when they are speaking	2.5217	0.69329
17. The educator should not interrupt the learners when they are speaking	4.2609	0.93013
18. The educator should use encouraging non-verbal communication	3.9457	0.92859
19. The educator should give the learner time to think before answering	3.9239	0.80935
20. The educator should provide individualized constructive feedback	4.0652	0.81866
21. The educator should encourage learners when they feel that they cannot succeed	4.0109	0.64138
22. The educator should encourage learners to take initiative	4.3696	0.61931
23. The educator should be aware of the learners' feelings	4.5326	0.65383
24. The educator should encourage the free expression of emotions without getting involved by either agreeing or disagreeing	4.4674	0.81493
25. The educator should encourage learners to utilise their skills	4.1304	0.95996
26. The educator should adapt their feelings to changing situations	3.8152	0.66398
27. The educator should ask open questions	4.4022	0.86857
28. The educator should show personal interest in and care for group members	3.7174	0.73996

4. Discussion

In contrast to findings in the literature (Caffarella& Merriam, 1999; Falasca, 2011; Radovan, 2013; Scanlan, 1986), the results of the present study showed that the majority of adult learners recognised the importance and necessity of lifelong learning in order to keep their knowledge and skills in line with developments. Women, more so than men, did not consider education to be inadequate. An explanation for the discrepancy between the findings of the present study and the literature might be the participants' level of education. All adult learners in this study had a high level of education, in fact all were university degree holders and half had a post-graduate degree. The results could very well have been different had the participants only completed compulsory education (Bourdieu, 1985; Radovan, 2012).

It was found that the adult learners acknowledged the phenomenon of memory decline with the passing of the years, however, most participants believed that their weaker memory was due to the inability to concentrate as a result of increased family and professional obligations (Falasca, 2011) rather than age. Almost all participants in the present study were positive about their ability to acquire new skills, competencies and knowledge by applying rules they knew from past learning and experience. Contrary to that reported by Falasca (2011), Rogers (1999) and Galanis (1993), they did not have feelings of anxiety or insecurity. It appears from the findings that while adults are able to better understand and accept more easily what is in agreement with their own perceptual system, they find it difficult to accept that the knowledge they have acquired and concepts they have adopted no longer apply. The process of unlearning a skill or discarding a perception is a difficult and often painful process (Kokkos, 1998; Shuck, Albornoz & Winberg, 2007).

The most important positive emotions that the adult learners in this study stated were: satisfaction, enthusiasm and pride for high performance, good grades and positive feedback, as well as a good classroom climate, calmness and pleasure (Cleveland-Innes & Campbell, 2012; O'Regan, 2003). In contrast, the key negative emotions stated were: anxiety, frustration and insecurity. Most adult learners stated that they felt anxious when they had to sit exams and when they had to make a presentation in front of the class. Often, this latter experience is accompanied by the fear of being exposed or ridiculed in front of the group due to a lack of knowledge or because one has returned to learning and has again, often after many years, assumed a student status (Khoshlessan & Das, 2017; Satir, 1989).

Another obstacle to adult learning is the insecurity of not being able to meet the requirements of the educational programme. From the findings, it appears that participants attribute this insecurity to external rather than internal factors, such as inadequate educational material, low level of teachers' competency, non-objective assessment, as well as the lack of constructive feedback and encouragement (Rogers, 1999).

On the other hand, the majority of adult learners in the study appear to have high self-esteem. Their responses show that they believe in themselves and set high goals without being over-ambitious because they know their abilities and limitations. They claim that they are able to handle their failures in such a way so as not to repeat the same mistakes in the future. Even though initially they felt angry or frustrated with themselves, they attempted to determine the causes of their failure in order to deal with and avoid them henceforth (Cigman, 2009; Jabari et al., 2014; Kristjánsson, 2010). Overall, the findings indicate that lifelong learning improves adult learners' self-esteem.

Regarding group relations, adult learners with high self-esteem tend to be extroverted, have a good relationship with all the other members, voice their feelings, and do not hesitate to support their opinions even if they conflict with those of the rest of the group. In contrast, those with low self-esteem do not freely express themselves and tend to yield to group pressure (Cigman, 2009; Kristjánsson, 2010; Lee, 2017).

A large percentage of participants stated that they felt secure when the educator is in control of the class and when they identify with other group members whom they consider competent. These behaviours are learners' defense mechanisms when their educational goals are hampered by emotional reasons, mainly by feelings of anxiety (Tsiboukli, 2012). The correlation of the variables showed that the lower the education all level of the participants, the more frequently these mechanisms appear.

The study findings showed that the adult educator plays a crucial role in cultivating an appropriate climate for effective adult learning and creating positive emotions of pleasure and security (Polemi-Todoulou, 2005; Knowles, 1970; Vella, 2002). This supportive environment is developed when the educator acts not only as a mere transmitter of knowledge but shows personal interest and care for the group members, as well as fostering a climate of trust among learners to encourage them to express their feelings and experiences (Knowles, 1970; Rell, 2000; Tait, 2003). For this reason, adult learners stated that they wanted the educator to: function as a member of the group and not as a person of authority; encourage cooperation; as well as encourage learners to take initiative and express their spontaneity and creativity (Kokkos, 1998; Galbraith, 1990).

Focusing on the participants' perception of the role of their instructor in the educational programmes they were attending or had recently completed, the findings from the semi-structured interviews were used to triangulate the research results. The interviews revealed that in fact the adult educator in most cases acted as a figure of authority, who had power over the learners, and did not always succeed in cultivating trust with the result that learners did not feel comfortable to express their emotions.

Adult learners come to the educational programme with different experiences, knowledge, and learning models, they have different characteristics, needs and expectations, and for these reasons, they want the educator to actively involve them in course design (Courau, 2000; Rogers, 1999). It has been shown that engaging adults in developing their own learning objectives and putting forward proposals for the achievement of these, has a positive impact on reducing anxiety and insecurity (Falasca, 2011). From the interview findings it was stated by most respondents that their instructors involved them in the design of the educational programmes only to a moderate degree, as in the majority of cases the adult educators had decided and prepared in advance what and how they would teach. This behaviour is contrary to what adult learning theories prescribe good teaching practice (Brookfield, 1986; Giannakopoulou, 2008; Grass, 2008; Rogers, 1999).

The teaching outcome is also determined by the educational techniques used by the educator, which influence the degree of involvement, interaction, and free expression of the learners. The present study findings - from both the questionnaires and the interviews - confirmed that adult educators use active learning techniques, mainly group work and discussion (Noye & Piveteau, 2016; Gray, 2008). Of interest is the finding from comparative statistical analysis which showed that adult male learners want more discussion, while female learners prefer group work.

The negative feelings of frustration, insecurity and anxiety that impede the learning process can be eliminated by appropriate feedback. Constructive feedback helps adults to identify their weaknesses, feel pleasure, satisfaction and pride, as well as enhance their motivation in learning (Galbraith, 1990; Lee, 2017; Wlodkowski, 1985). However, in the present findings, it was observed that in fact, the feedback given by the educators was quite general and not instructive.

According to the participants, empathy, as well as perceiving and understanding the emotions, needs and views of adult learners are necessary conditions for creating a climate of confidence within the group (Davis, 2018; Goleman, 1995). When the educator perceives that a learner is overwhelmed by negative emotions, they are able to counter the resignation mechanisms setting in with understanding and encouragement. A very large number, seven out of the ten interview respondents, stated that they looked for encouragement from the educator when they felt they would not succeed, but in reality they claimed that encouragement was provided by only a few instructors (Kokkos, 1998; Galbraith, 1990; Tait, 2003).

The perception of adult learners regarding active listening confirms that when an educator is able to do so, it not only promotes communication but also creates positive emotions (Courau, 2000; Vella, 2002). Indications that the educator is able to implement the skill of active listening is the attention they give the learner when she/he is speaking, their body language, and generally by verbal communication, such as the way they ask questions (Betts, 2013; Anagnostopoulou, 2005). When the educator asks open questions, adult learners are given the opportunity to express their opinions, their thoughts and their feelings (Courau, 2000), which makes them feel accepted and strengthens their self-esteem.

Regarding the adult educators' emotional intelligence, the participants stated that they wanted the instructor to understand their feelings, however, it was just as important for the instructor to be aware of his/her own emotions. The reason given for this response was so that the educator would be able to self-regulate and adapt his/her emotions to changing situations. Nevertheless, from the interviews it was ascertained that although the educators tried, they did not always manage to understand the learners' feelings. This implies that the adult educator cannot control or redirect their emotions to facilitate cognitive processes in the group (Goleman, 1995; Kapetanakis & Sepentz, 2016; Mayer & Salovey, 1997).

Finally, a small number of participants felt the need to withdraw from the educational programme they were attending. Pearson's Correlation indicated that these participants wanted the educator to have control of the class, did not want feelings to be freely expressed, and did not want to be asked open questions, characteristics which studies have shown to belong to people with low self-esteem (Cigman, 2009; Kristjánsson, 2010; Lee, 2017). There were many participants who felt great emotional pressure but did not give up. The fact that this emotional pressure was intense in the beginning but was able to be defused as the course progressed indicates the important role of the educator in eliminating the internal barriers that arise from psychological factors.

Often, the main reason why nowadays, an adult returns to learning is because they want updated knowledge, competencies, and skills to give them a cutting edge in the highly competitive job market. An adult learner has taken the important decision to add an educational programme to their already busy lives, and is, thus, a highly motivated, self-directed individual, who works hard in order to be successful. Nevertheless, emotion is an essential element of human experience whose influence on the learning process cannot be ignored. Positive emotions lead to constructive outcomes, whereas negative emotions to adverse ones.

Summing up, the emotional responses of adults participating in educational programmes may promote or inhibit the learning process. Feelings of anxiety, insecurity and frustration hamper adult learning. To address these inhibitory factors, the educators called on to apply their pedagogical and communication skills, as well as implement the appropriate teaching techniques to create an effective climate of communication and learning. The results of the present study found a discrepancy between learner expectations on the role of adult educators, which are in agreement with those reported in the literature, and the actual role of the educator that the learners experience in daily educational practice. Although challenging, we believe that real and lasting solutions can be achieved by the role of the adult educator in making learner-identified needs a central focus of educational programme planning, enhancing the quality of the educational programme structure, and tackling the internal psychological barriers of adult learners through the provision of quality learning support, communication and guidance.

As with any research, several factors may limit the generalisability of the results and threaten the internal and external validity of the study. In our study one factor is the fact that all the respondents were post-graduate students at the time of the research. This means that they were a-priori positive towards lifelong learning and this may have affected their feelings. Another factor is that the sample for the questionnaires and interviews was self-selecting and the participants may have responded in a desirable manner instead of honestly adding a degree of bias to the results. The small sample size and the short study period was a limitation in gathering data and in generalisability. Another limit is that most of the participants were women and the results might have been different had there been an equal number of both sexes. The subjectivity of the researchers is also a limitation, as with any qualitative research which we tried to reduce through triangulation.

Our research showed a difference between adult students' expectations of the educator's role and the actual role they experience. Future research should seek to study further such differences conducting deeper qualitative research using other research methods such as action research. Also, the role of the adult educator in the elimination of negative emotions in a larger sample, especially with qualitative methods, needs to be further studied. Finally, it seems important to examine what elements contribute to the elimination of negative feelings by providing more interviews and focus groups and expanding the current study with additional variables.

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Professional Learning Opportunities and challenges among Student-Teachers during the Teaching Practice in Nyamagana District, Tanzania

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Abstract

This study investigated professional learning opportunities that student-teachers attained and the challenges they encountered during the teaching practice in Nyamagana District. Questionnaire and interview guide were used to collect the data. One hundred and eighty (180) student-teachers (respondents) from 14 higher learning institutions who were doing the teaching practice in secondary schools in 2018 were selected using simple random sampling. Furthermore, purposeful sampling procedures were employed in selecting few student-teachers who were leaders of the group from each school. The results showed that teaching practice increases student-teachers' confidence and competence in lesson preparation, content, records management, classroom management, and moral values. It was also revealed that teaching practice helps student-teachers to be exposed to mentorship and teaching experiences. In the case of challenges, it was revealed that student-teachers face a problem of lack of sufficient instructional materials, insufficient orientation, poor working environment, lack of adequate skills to manage students with special needs and aggressive behaviour as well as over-crowded classrooms. Again, it was revealed that schools had no appropriate strategies for creating professional learning community and variation in assessment strategies and conflicting comments from assessors were other the challenges. The study recommends an integrated approach for effective implementation of teaching practice where school-based cooperating teachers, school-based mentors and University supervisors should work collaboratively to ensure a student-teacher has room to explore, discover and acquire professional attributes regarding teaching. A blended mentorship approach which includes face to face and online sessions for student-teacher is thought to be a worthy strategy to improve teaching practice.

Keywords: Professional Learning, Community of Learning, Teaching Practice, Mentorship

Introduction

This paper addresses the professional learning opportunities and challenges perceived by student-teachers during the teaching practices. In Tanzania, teaching practice for student teachers is a vital aspect of teacher preparatory programme in teacher education institutions. On this, teacher education institutions place the teacher trainees in teaching practices with the aim to enable them to put their pedagogical skills, content, knowledge and professional skills into practice. The basic assumption is that teaching knowledge, and skills are situated in the day to day lived experiences of teachers and best understood through critical reflection with others who share the same experience (Vescio, Ross & Adams, 2008). While exercising their teaching duties and professional responsibilities, they are likely to improve their professional knowledge and skills. The school is assumed to be the best place for them to realize their creative potentials and their ability to teach. Most student-teachers use this

teaching practice opportunity to integrate their theoretical knowledge into the real practice and interact fully with the community they expect to serve when they graduate.

It is logical to argue that the teaching practice period gives the room for student-teachers to assess their competence and attitudes towards teaching profession. It can also be seen as a period where student-teachers are supported to realize the actual classroom teaching, reflection on the classroom practices, innovative opportunities and challenges that emerge as they interact with their immediate clients. According to Kiggundu and Nayimuli (2009), during the period of teaching practice, student-teachers are exposed to situations involving controlling and managing learners and establishing a working relationship with mentors, school administrators and University supervisors. On this basis, teacher education institutions have the responsibility to ensure student-teachers have effective support and supervision from the college and the school they are placed. The question is, are there adequate efforts in supervision to ensure that student-teachers realize the value of teaching practice? Are student-teachers able to realize the opportunities during the teaching practices? Based on these questions, it was possible to assess how student-teachers value and make use of pedagogical theories attained from colleges to meet the practical needs of the classroom and teaching profession.

The Need for Quality Professional Learning

A well-educated and learning society can be created by teachers as they interact with learners in ingraining them the critical and competitive spirit for development. On this basis, teaching becomes a more multifaceted task that demands highly specialized skills and knowledge so as to foster students' effective learning. The quality of teachers has been identified as a key determinant to the variations in students' learning (Wenglinsky 2000; Darling-Hammond 2000). A teacher should possess the qualifications and professional knowledge required to fulfil the learning needs of the learners in a diverse context. The question, therefore, is how teachers are prepared to become effective in their work? Do they have adequate opportunities to learn from teacher education programmes? It is not possible to locate the specific parameters, but there must be some standards to ensure teachers' quality is achieved and this can be reflected on how a teacher carries out the teaching responsibilities. According to Liakopoulou (2011), the way in which a teacher carries out his work is determined by the union of his personality traits and acquired knowledge. A good teacher should possess a wide range of qualifications, including mastery of the subject matter, mastery of the pedagogical techniques and possession of ethical values of teaching, just to mention a few.

Without effective professional learning, teachers cannot possess these attributes. In the Tanzanian education context, teaching practice has been considered as the best strategy to equip student-teachers from teacher education institutions with necessary pedagogical and didactic skills of teaching. Locating the professional learning outcome of the teaching practices to student-teachers raises an interesting question. Where can the professional learning outcome be pegged? It has been a common practice in most teacher education institutions where supervisors visit student-teachers for assessment and feedback, but, the professional learning outcomes are not availed in public. Possibly, a number of questions exist: can student-teachers realize the professional learning opportunities from the teaching practices? Are there any challenges that hinder student-teachers to learn from teaching practices? A more difficult question to educational practitioners is what support is available for student-teachers in realizing the professional learning opportunities? It makes sense to set the working definition in this paper regarding professional learning. The concept is considered as a learning opportunity gained by student-teachers from the actual practices as they interact with school teachers and the entire school community. Again, in this paper, the concept of mentorship has been considered as the contribution of school teachers to student-teachers in sharing experience and making a critical reflection on the fundamental issues of teaching. Therefore, the desire to conduct this study is built around two issues. First, the need to locate the perceived professional learning opportunities and challenges of teaching practice among student-teachers. Second, the need to raise awareness on the role of mentorship to professional learning among student-teachers. The following questions were examined in details:

- a. What are the perceived professional learning opportunities of teaching practice among student-teachers?
- b. What are the perceived challenges to professional learning among student-teachers during teaching practices?

The Consideration of Situated Learning Theory

Situated learning theory was developed by Jean Lave and Etienne Wenger in the early 1990s, reflecting the ideas by Dewey, Vygotsky, and others (Clancey, 1995) who claim that learners are more inclined to learn by actively participating in the learning experience. The theory holds that learning, as it normally occurs, is a function of the activity, context, and culture in which it occurs. This suggests that learners are likely to create the meaning as they are involved in daily activities. On this basis, it is expected that student-teachers are likely to improve their professional knowledge and skills as they are engaged in teaching while learning from others. The immediate impression one could draw from this theory is that learning is situated in a social interaction experience where every member of the community of learners has the chance to learn from one another. During the teaching practice, student-teachers are likely to learn from students whom they teach, school teachers, heads of schools, parents, mentors, and supervisors from the college who visit them for assessment.

Lave and Wenger (1991) emphasize that novices begin learning by observing members of the community and then slowly move from the periphery of the community to fully participating members. What could be the logical implication to student-teachers as learners? It is possible to argue that, when student-teachers are at school, they are likely to learn from the complex and diversified school environment and be able to think critically and perform their duties as a community of learners. It is envisaged that the school environment and culture should support active engagement, discussion, evaluation, and reflective thinking. This discussion raises an interesting question: does the school environment provide the professional learning opportunity to student-teachers? One possible response is that professional learning can take place through activities, student-teachers are engaged in trying to solve real-life contextual problems. It is on this theoretical underpinnings this study was thought to address student-teachers understanding, thinking and practices during the teaching practices. The theory explains the complementary ingredients of an integrated view of professional learning among student-teachers.

Methodological Consideration

The study employed simple descriptive statistics backed up with verbatim quotations from research participants focusing on student-teachers' perceptions and experiences regarding teaching practice. The study involved 180 student-teachers from 14 Universities who were doing teaching practice in seven schools in Nyamagana District, Tanzania in 2018. Figure 1 next provides a summary of respondents across the Universities.

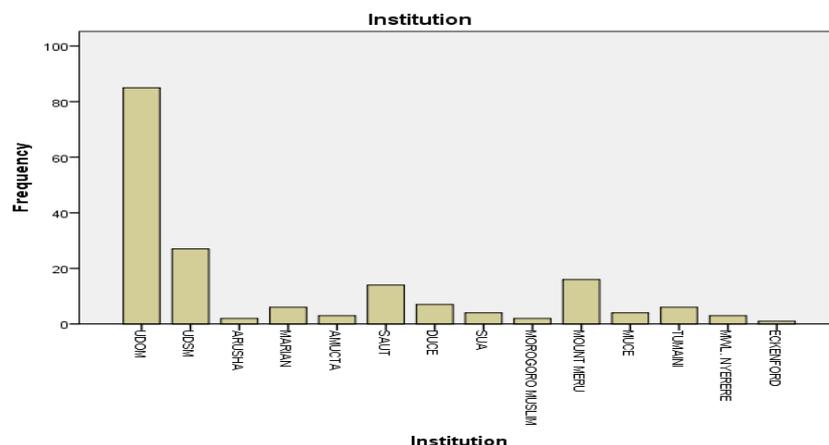


Figure 1: Number of Respondents across Universities

The closed-ended questionnaires were administered to student-teachers who were selected randomly with the aim to get a general overview of teacher's perceptions while the interview was conducted among few purposefully selected student-teachers for complementarity reasons. The respondents on the closed-ended questionnaire indicated their response on a four-point Likert scale of SA ("Strongly agree"), A ("Agree"), D ("Disagree") and SD ("Strongly disagree") with 4, 3, 2 and 1 scoring values apportioned to their response respectively. The decision rule was determined at 2.50 by obtaining the mean score of the scoring values. Thus, each item means less than or above 2.50 was either rejected or accepted. The responses from interviews were subjected to thematic analysis.

Results

- a. What are the perceived professional learning opportunities for teaching practice among student-teachers?

Table 1: Perceived Professional Learning Opportunities (N=180)

S.N	Item	SA	A	D	SD	X	Decision
1.	Improved my understanding of ethical practices in teaching	114	63	2	1	3.61	Accepted
2.	Improved my skills in the use of ICT for teaching	9	78	34	59	2.21	Rejected
3.	Improved my ability to collaborate with fellow teachers	119	54	2	5	3.59	Accepted
4.	Improved my confidence in lesson presentation and subject matter	138	36	3	3	3.72	Accepted
5.	Improved my confidence in responding to students' challenges	113	62	5	0	3.60	Accepted
6.	Improved my ability to relate ethically with my students	85	87	5	3	3.41	Accepted
7.	Improved my ability in report writing regarding my duties	78	93	6	3	3.37	Accepted
8.	Improved my ability in file and records management	90	73	13	4	3.38	Accepted
9.	Improved my skills in lesson planning, formulation of lesson objectives and lesson evaluation	121	52	4	3	3.62	Accepted
10.	Improved my skills in Audio-visual materials development	51	86	32	11	2.98	Accepted
11.	Improved my communication skills when teaching	113	58	6	3	3.56	Accepted
12.	Improved my skills in managing students with special needs	25	63	29	63	2.28	Rejected
13.	Improved my skills in coping with cultural diversity among colleagues and students	80	84	14	2	3.34	Accepted
14.	Promoted my understanding of school and instructional leadership	96	79	5	0	3.51	Accepted
15.	Promoted my ability to be committed to the assigned duties	101	69	8	2	3.49	Accepted
16.	Promoted my ability to supervise extra-curricular activities	91	80	7	2	3.44	Accepted
17.	Promoted my skills in monitoring students' behaviour	106	70	2	2	3.56	Accepted
18.	Promoted my skills in guidance and counselling practices	79	88	10	3	3.35	Accepted
19.	I have gained general experience and interest in the teaching profession	75	89	10	6	3.29	Accepted
20.	Received constructive feedback from the University supervisors	117	53	5	5	3.57	Accepted

(Test Mean 2.5)

Table 1 shows the various perceived professional learning opportunities by student-teachers during the teaching practice exercise. A mean value of 2.5 was used as the test mean (cut off point). Any item with a mean of 2.5 and above was considered to be actually an opportunity for professional learning as perceived by the majority of the student-teachers. On this basis, 18 out of 20 items listed in Table 1 were the perceived professional learning opportunities while the remaining 2 were considered as minor opportunities as perceived by the student-teachers. The two rejected aspects "Improved my skills in the use of ICT for teaching" and "Improved my skills in managing students with special needs" were found to be associated with other factors such as limited teaching and learning facilities as revealed during the interview.

Findings from Qualitative Interview

The interview question focussed on identifying the learning opportunities from teaching practices. The themes generated from the raw data are summarised in table 2 next;

Table 2: Generated Themes from Qualitative Analysis

S.N	Theme	Representative Quote
1.	Mentorship	<i>"..... the guidance we receive from heads of schools and school-based supervisors has been so encouraging. We have been exposed to sufficient ethical responsibilities as teachers through meetings and group orientations. Although we have been receiving strong mentorship from heads of schools, some school-based teachers are always not available for consultation. Some of us sometimes misbehave because they lack proper mentorship from mentors who are assigned to them" (Student-Teacher B, 2018)</i>
2.	Exposure to the teaching profession	<i>".....the teaching practice has been useful as it gives us the opportunity to relate the theoretical principles we learn at the college and the actual practices. The exposure we get from school-based teachers and supervisors expands our perception of the teaching profession" (Student-Teacher F, 2018)</i>
3.	Increased Interest in the teaching profession	<i>"..... the teaching practice has helped us to improve our personal interest in the teaching profession. Before joining the University, I never thought of becoming a teacher, but now I really enjoy teaching. Although there are some few challenges in the classroom teaching, I have come to realize that when you teach, you learn. This broadens my thinking ability, and I become more proactive all the time" (Student-Teacher C, 2018)</i>

The results from table 1 and 2 indicate that teaching practices provide more opportunities for student-teachers to improve their professional learning. It was agreed by most respondents that teaching practices increase student-teachers' confidence and competence in lesson preparation, content, records management, classroom management, moral values, just to mention a few. The findings corroborate with the study findings by Andabai (2013) who found that student-teachers benefited greatly in participating in teaching practice because they were able to build proper confidence and competence in lesson preparation and developed skills and attitudes of a teacher during the exercise.

While teaching practice has been perceived to improve teaching competence among student-teachers, some could not benefit. This is contrary to the findings by Mapolisa and Tshbalala (2014) who found the most outstanding positive experience of the student-teachers who appreciated the support system offered to them by their mentors. Consider the response from student-teacher B, in table 2. It was revealed that some mentors were not available for consultation. It makes sense to assert that student-teachers need proper guidance from experienced teachers. Their absence could lead to some misconducts such as negligence of duties among student-teachers. The findings are in agreement with the study by Kagoda and Sentongo (2015) who found that teacher trainees benefited from school-based teachers as they gained experience in teaching, methods, skills, and techniques of content delivery during the teaching practices. Although some school-based teachers tend to ignore the importance of mentorship, the task remains to be more essential for professional learning. In the study by Mpofu and Chimhenga (2016), student-teachers perceived mentorship to be an important aspect, and they expressed the need for mentors to be understanding, good models, treat them as a teacher-candidate, not as a student and to give constructive feedback. A mentor is assumed to be the most knowledgeable individual who can assist a novice teacher to improve the professional skills and values. It is possible to question the moral integrity of those school based-teachers who are assigned the mentorship responsibilities to student-teachers. Do they really understand their professional responsibilities as mentors? Student-teachers really need mentors who have moral obligations so that they assist them to transform from being student-teachers to qualified professionals in teaching. In adding value to the teaching profession, student-teachers appear to appreciate the moral commitment of some teachers who helped them to develop insights towards teaching.

Increased interest in the teaching profession was another opportunity mentioned by student-teachers which complement the findings in table 1 in which many respondents agreed at the mean score of 3.29 on the same. This may have the logical implication for student-teachers to consider teaching as a profession. The findings corroborate with the research findings by Koross (2016) who found that student-teachers benefited greatly in participating in teaching practice because they were able to decide whether or not to take teaching as a profession. They developed an interest in teaching as they were exposed to the problems and prospects of the teaching profession. What kind of teaching practice is needed to support student-teacher professional growth? Participants were of the view that the exposure they get through teaching practice can improve their teaching in the future. It is the researchers' view that teaching practice should be considered to be an avenue for student-teachers to assess their personal, professional competence and commitment. It should help them to develop deeper insights into their understanding of teaching and learning strategies and professional responsibilities in teaching. In the 21st century, teachers need to possess multiple skills and understanding regarding the content, learners and professional attributes.

- b. What are the perceived challenges to professional learning among student-teachers during teaching practices?

Table 3: Perceived Professional Learning Challenges (N=180)

S.N	Item	SA	A	D	SD	X	Decision
1.	Lack of strong co-operation from the subject teachers and student-teachers	8	17	61	94	1.66	Rejected
2.	Lack of adequate Instructional materials and resources in your school	81	63	24	12	3.18	Accepted
3.	Inadequate teaching practice orientation before the commencement of teaching practice exercise	65	24	49	42	2.62	Accepted
4.	Lack of a good working environment at school that supports my ability to come up with innovations regarding my subject	84	45	35	16	3.09	Accepted
5.	The poor relationship between student-teachers from different Universities	22	11	61	85	1.83	Rejected
6.	Lack of respect among students to student-teachers	31	30	62	57	2.19	Rejected
7.	Too much workload and responsibilities for student-teachers at my school	6	28	71	75	1.81	Rejected
8.	Student-teachers are not formally introduced to permanent teachers thus making us feel inferior and irresponsible	12	14	66	88	1.72	Rejected
9.	Student-teachers are excluded from the staff meetings and other decision-making meetings	34	34	47	65	2.21	Rejected
10.	Student-teachers are facing difficulties in planning the scheme of work, lesson plan and lesson notes	11	37	68	64	1.97	Rejected
11.	Student-teachers are facing difficulties in managing students with special needs	87	48	38	7	3.19	Accepted
12.	Student-teachers are faced with the poor learning environment and over-crowded classrooms	94	44	32	10	3.23	Accepted
13.	Teaching practice is a period of stress and anxiety for student-teachers	21	21	53	85	1.88	Rejected
14.	Student-teachers are mistreated with the school teachers	16	22	60	81	1.85	Rejected
15.	Lack of strong supervision from the school administration	14	18	66	82	1.80	Rejected
16.	School-based teachers discourage student-teachers as they are not role models to them	21	25	73	61	2.03	Rejected
17.	Student-teachers meet some aggressive students, and they have very little control over them	78	34	48	20	2.94	Accepted
18.	Student-teachers are not fully involved in all school activities	19	24	54	83	1.88	Rejected
19.	Student-teachers are not allowed to interact with the permanent teacher and are even assigned a different staffroom	23	8	59	90	1.80	Rejected
20.	Supervision and assessment is not conducted on time	10	19	59	92	1.71	Rejected

(Test Mean 2.5)

Table 3 shows the various perceived challenges to professional learning by student-teachers during the teaching practice exercise. A mean value of 2.5 was used as the test mean (cut off point). Any item with a mean of 2.4 and below was considered to be actually a challenge for professional learning as perceived by the majority of the student-teachers. On this basis, 14 out of 20 items listed in table 3 were perceived challenges for professional learning while the remaining six were considered as minor challenges as perceived by the student-teachers. The challenges include lack of sufficient instructional materials, insufficient orientation, poor working environment, lack of adequate skills to manage students with special needs and aggressive behaviour as well as over-crowded classrooms. It makes sense to emphasize that these challenges may limit student-teachers' creative potential to explore professional learning opportunities regarding teaching. The findings corroborate with the findings from the interview with some student-teachers as described next.

Findings from Qualitative Interview

The interview question focussed on identifying the professional learning challenges among student-teachers during teaching practices. The themes generated from the raw data are described in table 4 next;

Table 4: Generated Themes from Qualitative analysis

S.N	Theme	Representative Quote
1.	Lack of appropriate strategies for creating a professional learning community	"..... When we arrived here at this school, we were isolated from school-based teachers. There is no specific place where you can meet a teacher who handled the lesson to you. This limits us to model some good characters from them. It is like they run away from us. I think these school based-teachers should consider us as learners who are ready to learn from them and the schools must create the learning community culture"(Student-teacher G, 2018)
2.	Variation in assessment strategies	"..... As you can see, we are from different Universities but undertaking similar degree programmes. My challenge is in the different format we have in preparation of lesson plans. The colleagues have their own structured lesson plan, but some of us, have to design ours. Some student-teachers from other Universities are required to prepare the portfolio, and they are assessed in a portfolio and classroom teaching while others are assessed in the classroom only. These variations, sometimes bring confusion. I am of the view that Universities, must harmonize and come up with a standard assessment tool....." (Student-Teachers F, 2018)
3.	Lack of proper guidance from classroom teachers	"..... We expect class teachers who handled the lesson to us to be present in our classroom teaching for proper guidance and feedback, but this never happened to our school" (Student-Teacher C, 2018)
4.	Conflicting comments from assessors	"..... as you can see, we are fifty-five student-teachers from six Universities, but most of us after the assessment, we find conflicting comments, especially on the lesson plans. When we compare comments on the components of the lesson plans, we find that every University has its own way and format of the lesson plan. When we ask school based-teachers, they have their own way too. My problem is: what should be our take?. It is really confusing....." (Student-Teacher A, 2018)

The findings from table 3 and 4 reveal that there are many challenges regarding teaching practices. Lack of sufficient facilities at schools has been one of the challenges highlighted by most participants. The findings are in line with the findings by Mungure (2017) who found that there were no teaching and learning resources, especially for science student-teachers such as laboratories to practice science skills and other materials such as manila sheets and models. In Turkey, it has been found that student-teachers faced difficulties about not being able to find appropriate materials for the experiments, realizing that the materials were broken before the activities, and coming to school with incomplete or incorrect materials (Takaoğlu, 2017). Lack of suitable materials to meet the learning purposes may be interpreted that student-teachers are not really practising what they are taught in Universities. On this, one student-teacher was quoted saying:

"the school has the laboratory as a building, but when you get in, there is no apparatus, specimens, some circuits are not working. In this condition, how can you teach chemistry?..... it becomes very difficult for us when preparing the lesson plan, you find the topic is to be taught by using some apparatus, but when you go in the laboratory it is empty" (Student-Teacher H, 2018)

In view of the above quote, it is possible to raise questions: how science subjects are taught? Do learners achieve better in science when they are taught theoretically? The literature suggests that science subjects can be taught better through inquiry-based methodologies. Writing on inquiry-based science education, Abdi (2014) stresses that learners become engaged in many of the activities and thinking processes that scientists use to produce new knowledge. On this basis, learners need a space (laboratory) and physical facilities to explore. Lack of such facilities and equipment in the laboratory may have negative effects on their learning. Reflecting on the government statistics regarding the availability of laboratories in the Tanzanian government and non-government secondary schools, the data indicate that there is a deficit of 2093 (43.6%) out of 4796 biology laboratories needed while 1918 (39.7%) out of 4827 chemistry laboratories needed and 2151 (44.8%) out of 4797 physics laboratories needed (URT, 2017). It is possible to underscore that, in this situation, student-teachers teaching science subjects lack sufficient skills in supervising and conducting practical sessions since, in some schools, there are no laboratories.

It was also reported that ICT facilities were insufficient in almost all schools that were involved in this study. Student-teachers had no opportunity to explore how ICT facilities could be used to facilitate their teaching. On this matter, one of the respondents stated:

".... We are living in an information society where every individual should have an opportunity to access digital information. The situation at our school does not reflect the same. We expected to be exposed to digital facilities that can facilitate our teaching, but our expectations are in vain now. The big school like this has two desktop computers which are used by the academic master and the head of school...." (Student-Teacher D, 2018)

A critical reflection from the above quote lies in the number of available computers which are not used to support teaching and learning. This may limit the continuity in professional learning among student-teachers. At the University, most student-teachers are taught how to explore technological devices and use them to support their teaching, but when they go for teaching practice, the facilities are not enough. Based on the government statistics in Tanzania, there are 4796 government and non-government secondary schools with a total enrollment of 1,908,857 students. In these schools, there are 24,545 desktop computers, 1489 projectors, 789 radio and 5765 laptop computers (URT, 2017). The number of ICT facilities available does not match fairly with the total students' enrollment of which the strategies to bridge the digital divide in education might be slow. One would say that insufficient ICT facilities would result in poor development of the industrial economy. Among the strategies to realize competence and competitiveness, is to promote science and technology education. Technology has been identified as a driving force towards the realization of Tanzania vision 2025 in which it should be harnessed to enable people to meet their basic needs and increase productivity (URTPC, 1999). It is possible to argue that the realization of the vision 2025 may be difficult if there is no deliberate investment in technological devices in Tanzanian schools. Access to ICT facilities in schools by student-teachers may lead to the use of ICT in teaching and learning in the future although it is not a guarantee.

From the findings in table 4, it was also revealed that schools had no appropriate strategies for creating a professional learning community (PLC) for student-teachers. Most literature suggests that engaging teachers in PLC increase their professional knowledge and enhances students' learning (Vescio *et al.*, 2008). In the context of the present study, PLC is taken to mean the collaborative culture created between school-based teachers and student-teachers for the purpose of professional growth. Based on the findings in table 4, this did not happen, instead, student-teachers witnessed the culture of isolation. The findings are contrary to the findings by Kagoda and Sentongo (2015) who found that student-teachers tend to isolate themselves from school-based teachers and sit behind in the staffroom. The logical implication is that the situation would lead to a lack of appropriate professional teaching skills among student-teachers that could draw from school-based teachers who are

considered as mentors. The key assumption behind PLC is mentorship in which student-teachers may have an opportunity to learn from experienced teachers. Writing on the role of mentorship as a key component of PLC, Fantilli, and McDougall (2009), stress that mentorship assists are beginning teachers to cope with teaching difficulties. Researchers of the present study are of the view that mentorship should be considered as a serious component of teaching practice in which school-based teachers should be well informed on their responsibilities as mentors. It is expected that classroom teachers as mentors, provide strong guidance to student-teachers in many aspects such as lesson preparation, actual teaching, and assessment of students' learning.

The other challenges mentioned by the participants include variation in assessment strategies and conflicting comments from the assessors. The findings are in line with the findings from the study conducted in Zimbabwe by Majoni (2015) who found that supervisors' comments tend to confuse student-teachers and they become uncertain of the correct thing to do. Furthermore, Majoni found that some lecturers who come to assess student-teachers on teaching practice tend to be fault seekers. Reflecting on the matter, the researchers of the present study considered the approach to be unsafe, and this might compromise the quality of teacher education. It is expected that the supervisor and student-teacher relationship to be a shared one. The supervisor has the task to spend time in reflecting together with student-teachers so as to improve the practice. What is seen, is just conflicting comments instead of providing specific and descriptive feedback on the student-teachers' teaching. In a similar way, Chihenga (2017) found that supervisors gave grades which did not reflect the comments made about the teaching performance of the student-teacher and some created fear to student-teachers. Under this condition, the professional working relationship cannot be achieved ever since the teaching practice is seen as a punitive task. Supervisors should be well informed on their professional responsibilities which encourage and support student-teachers to relate the teaching theories to classroom practice. After the classroom observation, the supervisor has an obligation to discuss with the student-teachers on various professional matters which may include effective use of teaching and learning materials, motivation, and teaching and assessment approaches, reflection, records management just to mention a few.

Participants of the present study had the view that the variations in terms of comments and assessment need to be harmonized. It is possible to develop a national teaching practice guideline in which all supervisors must observe. Again, there must be a well-harmonized lesson plan to guide student-teachers when planning for their teaching. This would minimize anxiety and fear among student-teachers who receive contradicting comments. It is possible that all Universities are offering teacher education programmes to agree on the key elements to be assessed rather than having different models of assessment. Student-teachers should be treated as adults who are ready to take teaching professional responsibilities after their graduation. To achieve this, there is a need of having an integrated supervision approach on teaching practice which considers a student-teacher as a self-determined learner.

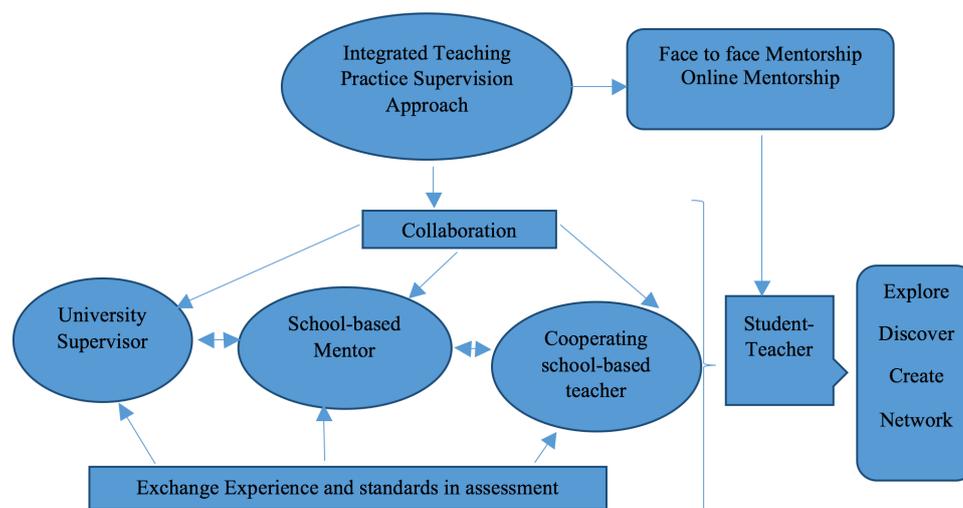


Figure 2. Integrated Teaching Practice approach

Source: Researchers (2018)

It makes sense to stress that, collaboration should be the heart of each Party involved in teaching practice supervision in which everyone can learn from one another. The University supervisors, school-based mentors, and collaborating teachers should work collaboratively to help a student-teacher to explore, discover, create and acquire teaching professional attributes. It is assumed that learning in the digital age and for adults takes place through experience and reflection from multiple resource individuals.

Concluding Thoughts

Teaching practice seems to be the most important task for the student-teachers in promoting their professional growth. Student-teachers really acknowledged the usefulness of teaching practice as it provides for them an opportunity to explore and discover professional duties and responsibilities. It was found that mentorship could play a great role in improving student-teachers' professional commitment, although most school-mentors were not aware of the responsibilities. This calls for a formalized partnership between colleges and schools so as to create a friendly relationship in which a school-based mentor can have an opportunity to guide and coach a student-teacher on professional development.

Implications for Teacher Education

This study has a number of implications for teacher education. Firstly, student-teachers should be involved in a comprehensive orientation before they go for teaching practice with the aim to guide them on their teaching professional responsibilities. Workshops and seminars may be done at the college, but the continued online mentorship between University coordinators and student-teachers can also serve the purpose of advising and encouraging student-teachers to keep on track on their professional responsibilities. On this basis, this study suggests a blended mentorship approach which includes face to face and online sessions for student-teacher as a useful strategy to improve teaching practice.

Secondly, a collaboration between school-based mentors, cooperating school-based teachers and University supervisors would serve the purpose of effective teaching practice supervision. This would help a student-teacher make a personal reflection on the feedback brought forward by each party. It is possible for a student-teacher to learn and gain a professional understanding regarding the teaching profession when he or she receives constructive criticisms from the team.

Thirdly, higher learning institutions should harmonize and come up with clear guidelines on how schools should participate in the training of student-teachers. The guidelines may outline the responsibilities of University supervisors, school-based cooperating teachers, and mentors. Assessment procedures and tools may be developed to ensure uniformity and clarity for anyone who is involved in assessing student-teachers during teaching practice.

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Assessing the Performance of Corporate Social Responsibility in Nigerian Universities and Contribution to Development of Host Communities

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Abstract

The objective of Nigerian universities among others, and very important too, is to relate their activities to the social, cultural and economic needs of the people of Nigeria. This presupposes that the Nigerian society expects the universities to continuously adjust curriculum, teaching, and research to meet the needs of society. More than five (5) decades of experiment with university education in Nigeria, many stakeholders, particularly community members where universities are located have expressed disappointment over the seeming poor capacity of universities to perform their corporate social responsibility that raised two research questions and one (1) hypothesis. The population of study comprised all the 64 public universities spread across the six (6) geopolitical zones of the country. A total of six (6) universities representing ten (10) percent of the population constituted the study sample. The universities were stratified according to the six (6) geopolitical zones from which one (1) university each was randomly selected. The North-East geopolitical zone was excluded because of the persisting problem of insurgency perpetuated by the notorious Boko Haram terrorist group. All the officers of the Community Development Associations (CDAs) in the communities where the sampled universities are located serve as respondents for the study. A questionnaire titled: Universities' Performance of Corporate Social Responsibilities Questionnaire (UPERCOSEREQUE) was validated, pilot-tested ($r=0.91$) and administered on the respondents. The administration of the questionnaire with research assistants nationwide lasted for 8 weeks. Section "A" of the questionnaire collected demographic data while "B" and "C" contained CSR core areas performance and community development indices respectively. Respondents assessed on a 4-point rating scale. Data collected to answer the research questions were descriptively analysed using means and standard deviation. The result of the analysis revealed among others that the performance of CSR is low. Based on the findings, the study recommended that Nigerian universities should adjust their curriculum, pedagogy, and research to respond to the needs of their host communities

Keywords: Assessment, Performance, Contribution, Development, Universities, Social, Corporate, Responsibility

Introduction

The university is an institution at the highest level of education where persons study for a degree or do research. All over the world, the economy depends on the universities for production of high-level manpower to fast-track the processes of socio-economic development. It is for this reason that the government supports the development of university education in Nigeria. In the 1960s for instance, only four (4) universities were available and sparsely located in the North, East and Western regions of the country. Today, 58 years after, there is a proliferation of universities in the nooks and crannies of Nigeria bringing the total number of universities to over

178 (JAMB, 2018). The onerous mandate of these universities among others is to carry out Corporate Social Responsibility (CSR) in their areas of operation or immediate communities.

CSR refers to the social and philanthropic responsibilities organisations morally perform to improve the lives of people and the amenities in their immediate areas of operation. What this means is that CSR essentially refers to the economic benefits communities expect from corporate organizations operating in their environment. According to Ali, Rehman, Yilmaz, Nazir, and Ali (2010) "CSR is a business organization's configuration of principles of social responsibility, processes of social responsiveness and policies, programmes and observable outcomes as they relate to the firm's societal relationships." CSR is an approach to decision making, which encompasses both social and environmental factors. This means that firms do not only have the objective to make a profit, but also the objectives of adding environmental and social value to society (Olatunji, 2013). In the perception of Deetze (2003), CSR action is being reactive to the needs of the community.

Additionally, CSR has to do with an organization initiating actions that will impact positively on its host community, environment, and the people generally. Adeyanju (2012) averred that CSR is an approach that acknowledges the fact that some operations of the firms have adverse effects on the citizens, society and making efforts to ensure that such negative impacts are mitigated. It is for this reason the World Business Council on Sustainability Development (1998) described CSR as the continuing commitment by business to behave ethically and contribute to economic development while at the same time, improving the quality of life of the workforce and that of the local people. The thesis of this narration is that CSR requires organisations to balance and improve environmental and social impacts without slacking in economic performance. This, in turn, leads to a move from the mission statement of the firm (where the main responsibility is to provide goods and services) to one which sees the need for philanthropic contribution to the welfare of society.

Conceptualising the university as an organisation, Jabbour (2010) argued that it could cause "significant environmental impacts." This is because many of them as a result of their large size, expressive movement of people and vehicles, high purchases of consumables including strong development of complex activities may be considered as "Small Towns." Therefore, it is inferred that universities should be responsible for society and their stakeholders. This can be the underlying reason why local people expect universities to perform CSR (Mehran, Azadeh, Yashar and Mohammadreza, 2011).

Theoretical Foundation and Literature

The significance of theories in every study cannot be over-emphasized. Theories according to Amodu (2012) enable researchers to put facts in perspectives and to hypothesize what will happen. It is for this reason that the stakeholders' theory by Freeman Edward (1983) is chosen to explain this study. The stakeholder's theory of CSR is based on the assumption that organizations have obligations to several groups that make up the society. These constituents are referred to as stakeholders, that is the individuals and groups that are critical to the existence of the organization; they influence what the organization does and are also influenced by the organization's actions. The theory stipulates that management has a moral duty to protect not only the corporation but also the legitimate interest of all stakeholders. This presupposes that all stakeholders' interests are maximised at all times.

Dahan and Senol (2012) carried out a study on corporate social responsibility in Istanbul Bilgi University, Pakistan. The aim of the study was to analyse Istanbul Bilgi University in the context of corporate social responsibility practices. The scholars noted that for any institution, whether public or private, to be successful in corporate social responsibility implementation actors must be supported by the management of the University. If the management of an organisation does not support corporate social responsibility, there is nothing according to Obi-Omovoh (2017) the workers can do to carry out corporate social responsibilities. So, the study examined corporate social responsibility performance of Istanbul Bilgi University and attempted to ascertain the factors which are likely to affect the corporate social responsibility performance of the university. The researchers adopted the interview as a technique for data collection. The researchers conducted a semi-structured interview with the interviewees and made use of published university documents, the website of the University and

unpublished reports to gather data for the study. The findings show that corporate social responsibility performance cannot be successful without the support of university management. The second finding shows that Istanbul Bilgi University carries out corporate social responsibility, but the extent to which it does is minimal. The authors concluded that Pakistani universities, only focus on teaching corporate social responsibility as a concept and do not perform corporate social responsibilities. The authors then recommended that universities should endeavour to carry out corporate social responsibility to win as it is the goodwill of their stakeholders.

Nejati, Shafaei, Salamzadeh, and Dareai (2011) conducted research a similar on top 10 world universities' websites. The researchers embarked on the research with a view to finding out whether the top ten world Universities actually leave up to expectation in terms of corporate social responsibility performance and if they do, to what extent?. In the study, the authors used content analysis to analyse the websites of the top 10 world universities ranked by Times Higher Education (2009). The authors in analysing the corporate social responsibilities of the universities paid attention to the core areas of CRS that include organisational governance, human rights, labour prices, environment, fair operating practices, consumer (students) issues, community involvement, and development. The study sample included Harvard University (US), University of Cambridge (UK), Yale University (UK), University College, London (UK), Imperial College London (UK), University of Oxford (UK), University of Chicago (US), Princeton University (US), Massachusetts Institute of Technology (US) and California Institute of Technology (US). The authors studied the content of the university official websites to analyse different aspects of the social communication and social reporting and tried to identify and match it with CSR core areas. The authors, therefore, reviewed all the related web pages of the universities, including news, media, department web pages, etc. The findings from the study show that leading universities in the world have taken corporate social responsibility seriously and announced this in their websites. Their findings further showed that all the 10 Universities studied publish the reports of CRS activities on their websites. The authors, therefore, concluded that the University's role in society is evolving. Universities are no longer just institutions of higher education and research, which grant academic degrees in a variety of subjects, but rather, they are turning into institutions of higher education and research that train responsible people, create cutting-edge knowledge to solve the issues and problem in the society. It is important at this point to provide information on the core CSR areas as drafted by ISO CSR, 2009 and cited in Nejati, Shafaei, Salamzadeh and Dareai (2011).

Organizational Governance: Organizational governance is the system by which an organization makes and implements decisions in pursuit of its objectives. Organizational governance in the context of social responsibility has the special characteristic of being both a core subject on which organizations should act and a means of increasing the organization's ability to implement socially responsible behaviour with respect to the other core subjects. Effective governance should be based on incorporating the principles and practices of accountability, transparency, ethical behaviour, respect for stakeholders' interests and respect for the rule of law into decision making and implementation.

Human Rights: Human rights are the basic rights to which all human beings are entitled because they are human beings, with an intrinsic desire for freedom, peace, health, and happiness. An organization has the responsibility to respect human rights, in its sphere of influence.

Labour Practices: The labour practices of an organization encompass all policies and practices relating to work performed within, by or on behalf of the organization. Labour practices include the recruitment and promotion of workers; disciplinary and grievance procedures; the transfer and relocation of workers; termination of employment; training and skills development; health, safety, and industrial hygiene; and any policy or practice affecting conditions of work, in particular, working time and remuneration.

The Environment: The decisions and activities of organizations invariably have an impact on the natural environment, no matter where they are located. These impacts may be associated with the organization's use of living and non-living resources, the generation of pollution and wastes, and the implications for the organization's activities, products, and services on natural habitats. To reduce their environmental impacts, organizations should adopt an integrated approach that takes into consideration the wider economic, social and

environmental implications of their decisions and activities. Environmental responsibility is a pre-condition for the survival and prosperity of human beings. It is, therefore, an important aspect of social responsibility. Environmental issues are closely linked to human rights, community involvement and development, and other social responsibility core areas.

Fair Operating Practices: Fair operating practices concern ethical conduct in an organization's dealings with other organizations. These include relationships between organizations and government agencies, as well as between organizations and their partners, suppliers, contractors, competitors and the associations of which they are members. Fair operating practice issues arise in the areas of anti-corruption, responsible involvement in the public sphere, fair competition, promoting social responsibility in relations with other organizations and respect for property rights.

Consumer Issues: Organizations that provide products or services to consumers and customers have responsibilities to them. These responsibilities include providing education and accurate information, using fair, transparent and helpful marketing and contractual processes and promoting sustainable consumption.

Community Involvement and Development: Community involvement and development are both integral parts of broader sustainable development. Community involvement – either individually or through associations seeking to enhance the public good – helps to strengthen civil society. Organizations that engage in a respectful manner with the community and its institutions reflect and reinforce democratic and civic values. Community involvement goes beyond identifying and engaging stakeholders in relation to the impacts of an organization's operations; it also encompasses support of and identification with the community. Above all, it entails acknowledging the value of the community. An organization's community involvement should arise out of recognition that the organization is a stakeholder in the community having significant common interests with all members of the community.

The Problem

The government has made commendable efforts to develop university education in Nigeria. The number of universities, enrolment, and funding have observably increased to the point of sighting universities in every nook and cranny of the country. This notwithstanding, uneasy calm characterises the communities where these universities are located. From reports and observations, these universities do not perform CSR to their host communities.

According to the Local people interacted with, the universities do not contribute to developing the communities particularly as it concerns the provision and maintenance of social amenities. They also allege that indigenes are not giving special considerations in admissions and employment matters, a claim that the university administrators denied. It is the intention of this paper therefore to investigate the extent to which universities perform their corporate social responsibility and assess their contribution to developing host communities. The paper also hopes to find out whether there is a strong relationship between the performance of CSR and university contribution to community development. To achieve the purpose of the study, the following two research questions and one hypothesis guided the investigation.

Research Questions

1. To what extent do Nigerian universities perform the core CRS practices?
2. To what extent do Nigerian universities contribute to the development of host communities?

Research Hypothesis

There is no significant relationship between university performance of CRS and contribution to development in host communities.

Method of Study

The study adopted the survey research design with all the 64 public universities constituting the population. To choose the study sample, the stratified sampling method was used to randomly select 10 percent of the universities located in each of the 6 geopolitical zones of the country, excluding the North-East because of the persistent problem of insurgency by the notorious Boko Haram terrorist group. The design was considered appropriate because all the types of universities in the country were represented and given equal chance to participate in the study. In all, a total of 6 universities comprising Taraba State University, Enugu State University of Science and Technology, Bayero University, The University of Benin, Lagos and Calabar constituted the study sample.

A questionnaire titled: "University Corporate Social Responsibility Impact on Host Communities Questionnaire (USOCOSOREQUE) was used to collect data for the study. Section "A" of the instrument collected demographic information about the host communities while "B" contained the 14 CRS core areas that respondents rated the performance on a 4-Point rating scale. The last section "C" of the instrument had 15 community development indices that the respondents rated their provisions and maintenance by the universities on a 4-point rating scale. The indices are roads, health centres, electricity, water, schools among others. The mean of the 4-point rating scale is 2.50 and was set as the benchmark for adjudging university performance of CRS and level of contribution to Host communities' development. Above and below 2.50 was described as "High" and "Low" respectively. The validated and reliable instrument ($r=0.91$, $N=20$) was administered on 402 respondents that comprised both Directors of Works in the selected universities and executive members of Community Development Associations (CDAs) in the respective host communities. Data collected to answer the research questions were descriptively analysed with means and standards deviation statistics while the research hypothesis was tested using Pearson correlation statistics at 0.05 level of significance.

Description of the Study Area

Nigeria is situated on the west coast of Africa, lies on latitude 4° North of the Equator and latitudes 3° and 14° on the east of the Greenwich Meridian. Shares boundaries with The Republics of Benin and Niger in the West, Cameroon in the East, Niger, and Chad in the North and the Gulf of Guinea in the South. The landmass of Nigeria occupies 923,768.64 sq kilometres with Abuja and Lagos serving as political and economic headquarters respectively. Politically, the country with a population an estimated of 198 million people is structured into 6 geo-political zones namely South-south, South-west, South-east, Northcentral, North-east, and North-west. The study area covers all the zones as seen in Figure 1. Nigerians prefer attending universities to other forms of higher education, the reason why, on the average, about 1.7 million apply for placements in the universities every year.

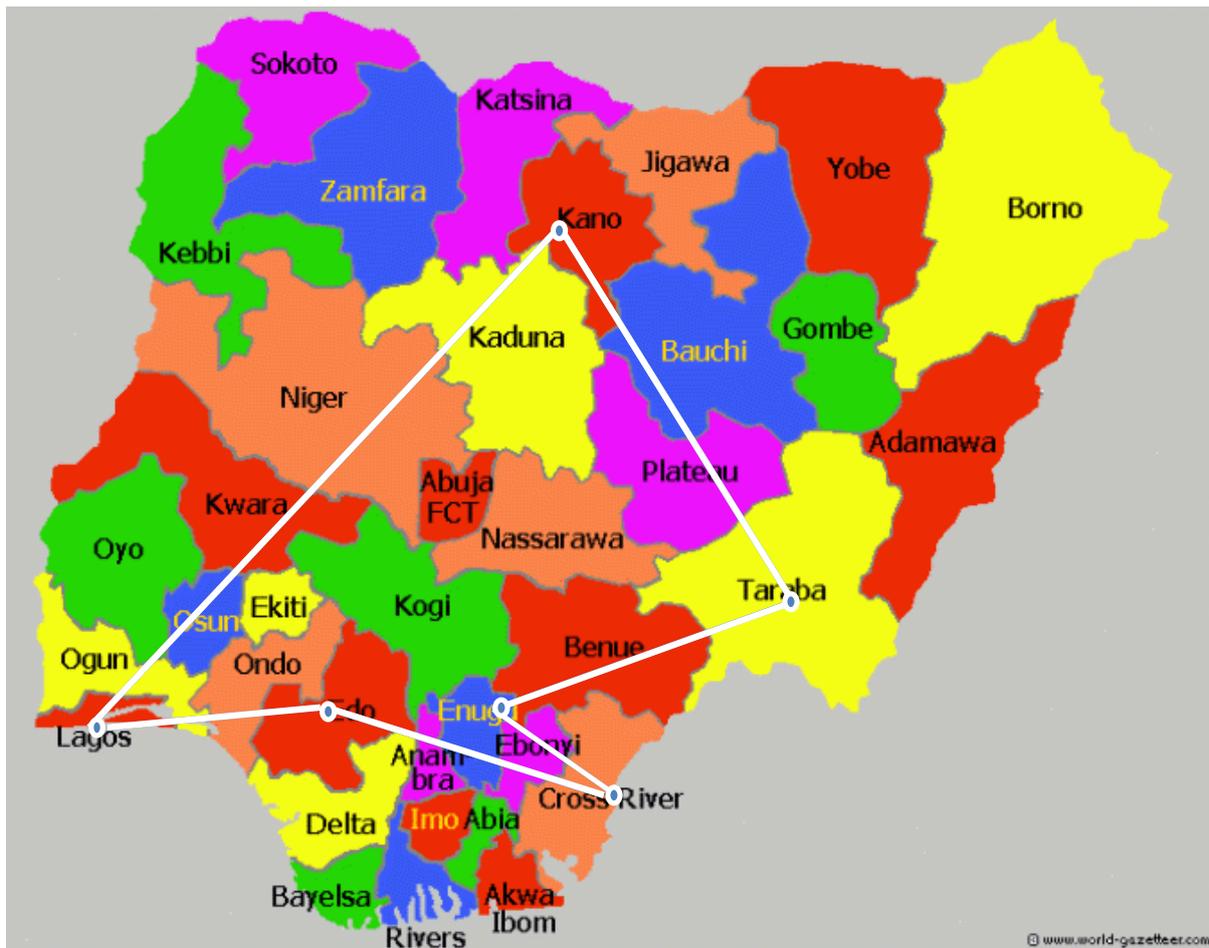


Figure 1: White Lines Showing Delineation of Study Area

As at the time of this study, Nigeria has a total of 178 universities out of which 64, that is 36 percent are publicly owned. The public universities according to Joint Admissions and Matriculations Board (JAMB, 2018) has a total carrying capacity of 336,000 students representing about 20 percent of applicants to the universities every year. The remaining qualified students are not admitted to go into expensive private universities and other forms of higher education. The emphasis on university degrees for employment exacerbated by the high rate of unemployment in the country explains the excessive demand for university education. The high demand for university education notwithstanding, the state of development, particularly the provision and maintenance of social amenities of the host communities where these universities are located is observably very poor as shown in the pictures in figures 2, 3 and 4.



Figure 2: Unmotorable Road, Commonly Sighted in Many University Host Communities in Nigeria



Figure 3: Fallen Electricity Poles, a Common Sight in Some Communities in Nigerian Universities



Figure 4: Poor State of Hospital Wards, A Common Sight in many Nigerian Communities.

Results and Discussion

Research Question 1

To what extent do Nigerian universities perform Corporate Social Responsibility (CSR)?

To answer research question 1, a total of 402 stakeholders comprising Directors of Works in universities and executive members of Community Development Associations (CDAs) assessed the extent to which universities perform CSR on a 4-point rating scale. Their responses were descriptively analysed and results presented in Table1.

Table 1: Mean Analysis of CSR Performance in Nigerian Universities

S/N	CSR Core Areas of Performance	X	\bar{X}	SD	Remarks
1	Labour Practices	1053	2.62	0.9563	High
2	Fair Operating Practices	1029	2.56	0.9573	High
3	Human Right	981	2.44	0.9593	Low
4	Student Issues	2.66	90	0.9556	High
5	Community Involvement/Development	828	2.06	0.9657	Low
6	The Environment	828	2.06	0.9657	Low
7	Organizational Governance	1093	2.72	0.9546	High
	Mean Total	989	2.46	0.9592	High

$\bar{x}=2.50$, N=402

According to the data in Table 1, the performance of CSR in Nigerian universities is low (2.46). In terms of specific core areas of performance, it is high in labour practices (2.68), organisational governance (2.72), student issues (2.66), labour practices (2.62) and human rights (2.66). Performance of the remaining three core areas is low in the universities.

Research Question 2

To what extent do Nigerian universities contribute to the development of host communities?

To answer research question 2, a total of 402 stakeholders comprising Directors of Works in universities and executive members of Community Development Associations (CDAs) assessed the extent to which universities provide and maintain 5 core social amenities in the host communities on the 4-Point rating scale. Their responses were descriptively analysed and results presented in Table 2.

Table 2: Mean Analysis of University Contribution to the Development of Host Communities

S/N	Development Indices	X	\bar{X}	SD	Remarks
1	Access Roads	957	2.38	0.9603	Low
2	Employment Opportunities	929	2.31	0.9615	Low
3	Access to University Admissions	844	2.10	0.9650	Low
4	Water Supply	651	1.62	0.9730	Low
5	Electricity Supply	780	1.94	0.9677	Low
	Mean Total	832	2.06	0.9657	Low

$\bar{x}=2.50$, N=402

According to the data in Table 2, the extent to which Nigerian universities contribute to development in host communities is low (2.06). The highest mean is observed in access roads (2.38) followed by employment opportunities for indigence (2.31) and access to university admissions (2.10). It is lowest in the water supply (1.62), followed by electricity supply(1.94).

Research Hypothesis

There is no significant relationship between university performance of CSR and contribution to development in host communities.

To test the research hypothesis, university performance of CSR and level of contribution to development in host communities were correlated using Pearson Product Moment correlation statistics at 0.05 alpha level of significance. The result of the analysis is presented in Table 3.

Table 3: Pearson Correlation Analysis of the Relationship Between university Performance of CRS and level of Contribution to Development in Host Communities

Variable	N	X	SD	R	Sig	Remarks
Performance of CSR		989	0.959			
	402			0.102*	0.013	<0.05
Contribution to Development		832	0.966			

*Correlation is significant at 0.05 level (2-tailed)

According to the data in Table 3, there is a significant relationship between university performance of CSR and contribution to development in host communities ($r=0.102$; $p<0.05$). What this means is that the null hypothesis which states the absence of a significant relationship between university performance of CRS and contribution to development in host communities is rejected. It, therefore, shows that level performance of CSR by universities could influence development in host communities.

Discussion

Corporate social responsibility (CSR) is not seen as a priority in Nigerian universities, the reason why the performance of its core principles why university administrators are low. This situation is different from what from what obtains elsewhere in Pakistan as reported by Dahan Senol (2012) and the top 10 world universities in

the United States of America and United Kingdom (Nejati, Shafaei, Salamzadeh and Dareai, 2011). It is therefore imperative that the concept of CSR be popularised within the Nigerian space.

The growing importance of CSR in the business world is clear. Universities have an opportunity to lead in an area that most businesses have recognised as important. Universities can and should build on a tradition of the past decades of attempting to close the lacuna *between town and gown* engage in positive. Thus, universities that value CSR will enjoy the goodwill of their stakeholders. While CSR is partially about building positive relationships, Obi-Omovoh (2017) avers that it can help an institution to develop a competitive advantage and stand out from its competitors. Universities realise that it is a competitive market in terms of creating an ongoing stream of satisfied alumni, attracting new students and addressing the concerns of stakeholders. As argued by Alshuwaikhat and Abubakar (2008), many universities as a result of their large size, expressive movement of people and vehicles, high consumption of materials and strong development of complex activities may even be considered as small towns. Therefore, it is inferred that universities should be responsible for society and their stakeholders.

Nigerian universities contribution to development in host communities has been found to be low. This result is not unexpected because the performance of CSR is not a priority contrary to what is reported by the World Business Council on Sustainability Development (1998). There is no doubt, in the context of this finding, that the mandate of universities to render consultancy services be rejigged for the purpose of rendering accountability to stakeholders. This is in line with the argument of Mehran, Azadeh, Yashar and Mohammadreza (2011) and Adeyanju (2012) earlier cited an organisation's legal responsibilities are the requirements that are placed on it by the law. Legal responsibilities can range from securities regulations to labour law, environmental law and even criminal law. Universities ought to be socially responsible in this aspect. Universities also need to take into consideration philanthropic responsibilities. Philanthropic responsibilities are responsibilities that go above and beyond what is simply required or what the organisation believes is right. They involve making an effort to benefit society; for example, by donating services to community organisations, engaging in projects to aid the environment or donating money to charitable causes (Smith, n.d). Philanthropic corporate social responsibility involves giving funds, goods or services, sometimes serving as advertising.

Conclusion and Recommendations

The need for universities to engage in corporate social responsibility for the promotion of goodwill cannot be over-emphasised. This study has sufficiently demonstrated that universities need to perform CSR in order to win the goodwill of their host communities. In doing this, the required synergy will be created to facilitate the processes of development. The importance of reporting CSR activities to members of the host communities for them to be aware and provide supports cannot be over-emphasized.

Recommendations

Based on the research findings, the following recommendations were made.

1. Nigerian universities should be encouraged to increase the rate of CSR performance. This can be done through legislation to give an account of their stewardship before they are allocated public funds.
2. The universities should ensure that their teaching aid research activities are principally tailored to contribute towards the development of their host communities. In particular, practical efforts should be made to provide and maintain basic amenities for the local people. In this wise, rejigging the curricula contents of academic programmes will be the most appropriate thing to do.
3. Since the relationship between the performance of CSR and university contribution to community development is significant, it is important to unify the *town and gown* together. This will eventually become a norm as university effectiveness is measured to the extent it is able to contribute to the development of host communities.

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Qualitative Research and Special Education

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Abstract

Qualitative research methods constitute the bulk of scientific design in the special education field because of their flexibility, open-ended nature, and the delivered ability to explore a complex reality with more insights and greater detail. To add, the qualitative design has been gaining even more attention in the recent decades, becoming a whole trend in special education literature. Based on the latter, the purpose of this research paper is to trace the usefulness and limitations of the qualitative methodology used in special education research in order to single out those methods which will appear the most applicable and practical in the field. Hence, the study design involves a literature review of five scientific articles devoted to qualitative research methods in special education research. The findings prove qualitative research methods as those which provide coherent, descriptive knowledge, help the researchers to get to the causes of the studied phenomena, structure the received data, and plan their further actions. The research paper also succeeds in defining three major qualitative methods, namely case studies in general, collective case studies, and ethnography, which seem the most hopeful in the special education field. The use of each depends on the specificity of data required, along with the challenges of the participants. At the same time, the study happens to reveal a number of challenges, which a scholar should be aware of in case of employing the qualitative design in special education research. Specifically, the research paper emphasizes various ethical issues that arise when one deals with the participants having special needs. In this case, a researcher should assure the safety and privacy of his or her target population; effective communication strategies are also to be set.

Introduction

A significant complexity in research exists as far as special needs education is concerned, leading to specific demands on the use of appropriate methodology. Various researchers involved with qualitative research in the past few decades and have written various special education journals in that respect. However, much of this work falls within the parameters of producing useful technical information that can be applied to the contexts where children and adults with disabilities learn, work, and live (Brantlinger et al., 2015). Experimental and qualitative studies that rely on postmodern or post-structural analyses, critical theory, and narrative research with subjective personal stories seem may be considered too radical, ideological, and theoretical to make it into many special education scholarly outlets (Friedensen, McCrae & Kimball, 2017). Therefore, for the final project, I will do a literature review for five articles related to qualitative research in the special education field.

Research Questions

1. What is the usefulness of qualitative methods in special education research?
2. What are the challenges of employing qualitative methods in the field of special education?

3. How can qualitative methods be implemented in special education research?

Purpose of the Review

Experimental and qualitative designs can contribute immensely to the fields of special education and disability studies and, hence, should reach those who receive or provide services to people with disabilities.

Effect of Qualitative Methods in Special Education Research

Qualitative research plays a significant role in the development of special education and the various programs involved (Friedensen, McCrae & Kimball, 2017). This method is a systematic approach that enables the understanding of qualities and relevant aspects within a certain context. Special education comes with a variety of needs and requirements that should be guaranteed if the desired educational objectives were to be realized. Qualitative design produces evidence based on science, which is then used to back up the decisions intended to transform the education of the people with special needs (Brantlinger et al., 2015).

Various scholars have indicated that qualitative research in special education is a positive motivation towards the development of the education sector. Empirical research provides information derived from a experience and critical observation of different prevailing situations (Brantlinger et al., 2015). Making the decision based on scientific evidence aids in ensuring the responsible authority derives the designated institution to success (Friedensen, McCrae & Kimball, 2017). Qualitative research leads to knowledge production in special education on the involved perspectives, the relevant settings, and the fitting techniques, which can be applied in certain conditions that require special attention. For example, people with learning disabilities suffer significantly in their desire to learn due to the lack of knowledge on the most appropriate methods that can be used to enhance their learning process. Through qualitative research, talking mats have been identified as devices and techniques relatively influence the communication with the students with learning disabilities (Mertens, 2014).

There is a given level of coherence in qualitative research involving special needs. The results findings are articulated coherently to form the basis of future research of the same caliber (Friedensen, McCrae & Kimball, 2017). Qualitative research answers the question on the changes occurring the special education, why they are occurring, and the how they are occurring, thus, informing responsible individuals the relevant actions to take to improve the quality or level of education. The main factor derailing the efforts to improve any process is the lack of information about the major factors influencing the self-sufficiency of the system (Mertens, 2014).

Through qualitative studies, researchers have developed descriptive information to help understand the people affected by disabilities. Other categories of information that have been established include understanding the nature of their families and those that provide care for them (Mertens, 2014). Through these attributes of descriptive studies, the design has proven significantly useful to scientific researchers whose objective is to improve the learning process for those that require special education. The composition of populations across the world has increased in diversity, and the number of people with disabilities continues to become clear. As the numbers increase, the necessity to develop an effective learning process for the affected becomes is significantly necessary (Friedensen, McCrae & Kimball, 2017).

Qualitative research examines the attitude of the individuals involved in special education, owing to the importance a learner's attitude bears in his or her propensity to learn (Mertens, 2014). Their opinions regarding special education are also put into context and professionally analyzed to identify the order of importance of the factors they are to learn. The thoughts and attitudes of the public are also established through qualitative research. Various teaching strategies tested during the research process, and the reaction of the learners is established to inform the best strategy to adopt in the special education sector (Mertens, 2014).

Qualitative research equips the researchers with the ability to plan their research effectively and meet the standards required by scholarly standards (Friedensen, McCrae & Kimball, 2017). The results established

through a qualitative research design are valid, reliable, and credible enough to be used in the implementation of programs aimed at improving the special education requirements. Qualitative results in special education can be reported in different ways, depending on the methodology adopted by the researchers in a given situation (Brantlinger et al., 2015). Despite the close resemblance with quantitative research design, the qualitative methods have proven productive in producing information considered significantly trustworthy (Mertens, 2014).

It is important to take note of the fact that the purpose of qualitative research in special education is to develop and validate systems and inspire intervention mechanisms that would ensure improvement (Mertens, 2014). Scholarly creativity is limited by certain characteristics of quantitative research, unlike qualitative ones. Unlike other types of research, the qualitative design leads to the development of an immediate practical application of the research findings (Nind, 2008). This applicability of the results makes the qualitative research most appropriate for special education where the need for change is required almost immediately. This is due to the increasing number of people with the disability that are in demand for the most effective teaching strategies from which they can benefit (Brantlinger et al., 2015).

Qualitative research in special education establishes a much-needed connection between the researchers and the research results established (Nind, 2008). The majority of the research carried out through qualitative research design involves professors and teachers. This makes it easy to implement the recommendations provided by the researchers because of the personal experience in teaching the children or students with disabilities. In most institutions, the special education personnel act as classroom teachers and thus, have first-hand information regarding the level of challenges faced by those with disabilities (Brantlinger et al., 2015).

Researchers favor qualitative research because it can trace and influence the documentation of particular learning and teaching effects (Nind, 2008). The determination of the effects of a given range of teaching and learning methods improves the teachers' ability to impact positively on the students' learning curve. However, this has to be based on empirical and scientific evidence to guarantee the highest level of accuracy that it desired. If a learning outcome is untraceable, it becomes significant that the success of that method be replicated in other settings with similar circumstances (Mertens, 2014). Therefore, the qualitative research design is a critical tool in qualitative research that has ensured the development of the systems used in special education.

The most important activity in improving the learning ability of the students with disabilities or that requires special education is to identify the specific needs and then plan for it. Handling children with learning disability, for example, requires the implementation of different strategies, which must be identified through the effectiveness. The effectiveness of a trend in special education can easily be established using qualitative research design (Brantlinger et al., 2015).

Qualitative research is gaining increasing acceptance on the use of analyzing complex questions. It is also applicable in understating emerging issues in learning disability, which are the major threats to education among parties with learning disabilities (Gersten et al., 2005). Qualitative research in special education focuses on the meaning of various activities, and thus, aids in understanding simple details involved in a process. Just like any other person within the society, the people with various disabilities have the rights to better or higher level of education, which should be offered after careful consideration of the difficulties or the limitations faced by people with disabilities (Nind, 2008).

Challenges of Carrying out Qualitative Research Methods in the Field of Special Education

Carrying out research activities in special education is not the same as the research activities in other subject areas. In the special education category, the researchers have to consider many logical, operational, and ethical issues involved in the process of research. This calls for the development of an ethical protocol that would guide the approaches implemented in different activities. Ethics protocol has to be developed before the research activities ensue and this takes a significant level of professional consideration (Brantlinger et al., 2015).

Ensuring the safety of the participants is also an ethical consideration that imposes some challenges to the qualitative researcher in special education. The vulnerable participants or groups need to be protected during the survey process while ensuring that their demands are met during the process (Nind, 2008). The people with disabilities are of different situations and are thus, exposed to different levels of threat during the research. For example, children with learning disabilities may dislike being spoken to by strangers. This would be a momentous level of the challenge given that the researchers may not have the luxury of time to bond with and establish familiarity with the participants. In such situations, preparation for the research activity would require careful time management and psychological preparation of the participants (Gersten et al., 2005).

The research team has to implement workable strategies in order to protect the patients with learning difficulties and the people as well as finding suitable individuals to implement the identified method. Having the participants involved in the research process throughout reduces their level of vulnerability during the designated activities. The participation of the target population would be increased if the research chose people from the locality within the locality in which they live. This is attributed to the possibility of increasing their passion regarding the research process because they are familiar with the people involved (Friedensen, McCrae & Kimball, 2017).

Deciding on who to include in the research study as the target population is also a challenge in qualitative research. The classification of people with disability can be severe, more severe, or relatively normal. The researchers have a relative concern when including the prospective participants deemed to have more severe conditions compared to the rest. The failure to include the people with more severe disabilities is considered unethical (Brantlinger et al., 2015). Equally, their inclusion in the research can provide the researchers with the ability to develop an important perspective about the conditions in which they are. The experiences of each of the people with disabilities, such as the learning difficulties should be focused on and a trend established to inform future actions (Friedensen, McCrae & Kimball, 2017).

People with learning disabilities have a communication problem and are thus, deemed incapable of understanding and talking to the researchers. Therefore, the academic experts have the role of developing a communication strategy that would facilitate communication with the parties involved. The research in special education needs to be inclusive of the public, and this calls for the need to have alternative ways of communicating with people with severe disabilities that limit their ability to talk to the researchers. The ethical dilemma involved in the selection of an inclusive target population is a challenge that must be dealt with by the professionals in the education of the people with disability, the psychologists, and the family members of the people with disability (Mertens, 2014).

Ethics protocols also include the relationship that exists between the researcher and the target population. The negotiation of the terms of operation needs to involve every participant in the research process. There is the necessity to build a rapport between the two involved parties, and the necessity to maintain boundaries to ensure professionalism is guaranteed, and the research objectives met (Gersten et al., 2005). Building rapport between the researcher and the participant requires the use of certain skills. The professionals involved in the research study may have the required skills, but the participants would need relative motivation to be able to associate with the researchers (Mertens, 2014).

The challenge in this aspect exists in two perspectives. The first perspective is the limited nature of time and the scarcity of the resources that can be used to match the researchers and the participants. Qualitative research in special education is in most cases, motivated by the need to inspire certain change and thus, may require some time unethical (Brantlinger et al., 2015). Equally, assembling the research team that has the capability to form a rapport with the participants also requires a process of consideration of various professionals. These professionals could be drawn from the education sectors, psychology, or professional research institutions. Having a competent research team would be costly, and this cost has to be managed properly. The parties involved are bound to have their social network extended and thus, their personal and professional growth (Friedensen, McCrae & Kimball, 2017).

The researchers in qualitative design in special education require informed consent from the target population or the participants. The need for informed consent is a policy requirement in the research process that cannot be ignored by the involved parties (Collins, Onwuegbuzie & Sutton, 2006). The rights of the individuals participating in the research need to be preserved by all means, and this involves the right to privacy. Informed consent before a research activity has become both a moral obligation and a legal requirement. This has complicated further, the research process and constrains the time that researchers have in developing different theories in a bid to improve special education (Friedensen, McCrae & Kimball, 2017).

One of the critical issues in gaining the informed consent is the competence of the target population to give consent. The party must have the psychological competence prescribed by law to be able to give consent in a proposed research. This implies that the researcher must be of a sound mind, because it is only then that they can provide the relevant information required for the research (Collins, Onwuegbuzie & Sutton, 2006). Secondly, the extent to which the proposed research suits the interest of the participant also needs to be analyzed. If the research is not in an individual's interest, they are likely not to be productive in the fact-finding process in the research (Friedensen, McCrae & Kimball, 2017). Finally, it is necessary to measure the balance of the research and the public interest. Public interest is critical because the objective or qualitative research in special education is to improve the living standards of the public or community (Mertens, 2014).

The person identified for the research must be a good decision-maker and should also have sufficient information regarding the subject of study. The decision to participate in the research should be voluntary, and the target population need not be coerced into taking part. The communication process will be inefficient if they are forced and combined with such problems as learning disabilities or autism, the researcher may not be able to establish the required information (Nind, 2008).

The ability to offer the informed consent may be limited by cognitive challenges such as the loss of memory or the inability to solve certain basic problems. This leads to severe communication difficulties for participants when promoted to do so by the researchers. The challenge therefore, is to develop a measure through which they can determine the ability of the target participants to give informed consent. Permanent impairment poses a significant challenge and a danger to the researcher in special education because it reduces the chances of retrieving the necessary information from the participants (Mertens, 2014).

The need to remain anonymous is also an ethical requirement that must be guaranteed by the researchers in special education. This is a fundamental requirement in qualitative research meant to protect the privacy of the respondent due to the different experiences one may be undergoing and that one would like to keep private. The management of the respondents' requirement for anonymity is not straightforward in most of occasions, and that is why it poses a significant challenge to the researcher (Lichtman, 2010). It is also not clear to whose interest the need for privacy and anonymity is needed, but it serves to boost the confidence of the participants while giving the information sought by the researcher. However, while this has been established as a policy requirement, there is a section of the people with the disability that would wish to share their story without having to maintain appearance in the face of the public. The contrast in this situation leads to a significant confusion for the researchers on how to act when faced with such challenges (Collins, Onwuegbuzie & Sutton, 2006).

Implementation of Qualitative Methods in Special Education

The application or implementation of qualitative research methods in special education uses different methods to achieve the desired results from the set objectives. The chosen method of implementation depends on the type of data targeted by the researcher and the ease with which the participants can be accessed. The researchers also consider the number of resources that may be used for each of the available implementation alternatives and may settle on the affordable and cost-effective (Lichtman, 2010).

One of the methods used to implement qualitative research in special education is the use of case studies. A case study refers to an investigation of a bounded group of people, a single individual, a process, setting, or a particular phenomenon (McDuffie & Scruggs, 2008). A case study focuses on one phenomenon or system and

uses the situation involved to influence better practice in similar situations in the future. In most cases, a case study is used when a particular problem has been noticed to affect a huge number of people in a nearly similar way. For example, the case of a child with autism and going through education well can be used to inspire parents with such children to follow the highlighted case and the cited methods of success for their children (Mertens, 2014).

The second implementation method that can be used in the qualitative research for special education is the collective case study (Friedensen, McCrae & Kimball, 2017). This is applied in different situations with a similar kind of problem. A collective case study is composed of distinctive individual cases that aim to solve a single problem. Unlike the case study where there is a single unit of study, a collective case study attributes to several situations that suffer from nearly the same problem. Qualitative research in special education can be used to save time during a research process or to ensure the correct number of study units can be applied to the research. The research design enables the researcher in special education to determine and implement the strategy they believe is sufficient (Friedensen, McCrae & Kimball, 2017).

The third method in this consideration is ethnography. This implies an interpretation or description of a cultural group system meant to develop a system of learning in a given community (Odom et al., 2005). Ethnography can be approached through a critical observation of a situation, carrying out an interview of the people living within the same social or cultural context, or through the analysis of a given document. The main objective of an ethnography is to influence the understanding of the social context of a particular community. Such establishments in the way of a community's operation lead to the understanding of the kind of systems used to guarantee special education to the vulnerable communities in the designated locality (Odom et al., 2005).

Special education research requires an objective research methodology that enhances the process of improving the condition of the people living with the disability within the locality concerning their access to education (Lichtman, 2010). Through qualitative research criteria, a researcher can adopt the action research mechanism to influence the quality of special education in a particular locality. Action research involves the introduction of new ideas by the researchers that may have a positive impact on the target population during the data collection process. The qualitative methods or designs have the overall objective of ensuring an improvement in the various fields of research in which it is involved. The application of this system in special education has ensured a relative improvement in the processes through which the people with disabilities have access to education (Friedensen, McCrae & Kimball, 2017).

The process of improving the special education standards within the country and across various nations requires the availability of evidence to support the major decisions made in the education sector (Odom et al., 2005). Over the world, educational stakeholders are committed to ensuring the achievement of an inclusive education system that suits both the abled and the people living with disabilities. An innovative strategy is more than necessary and is urgently required to inspire the transformation of the education sector. There is a range of factors that determine the level of innovation and the strategies to follow to ensure an improvement in the education sector. Data from research activities are necessary to prove the best path to success for various schools and special needs education (Gersten et al., 2005). Qualitative research design has been instrumental in the establishment of statistics used to back up decisions to improve the learning system of institutions offering special needs education services.

Teachers are expected to reorganize their classroom activities and become more inclusive in their approaches to education. Special education is lagging behind in a range of communities due to the lack of priorities with respect to the needs of the students with disabilities. Through qualitative research, the trends in special education have been developed and compared to the available government policies and regulations (Ghesquière, Maes & Vandenberghe, 2004). The available research results indicate that the external factors like the educational policies that affect the level of success in the desire to improve the quality of education among the people living with a disability. Through scientific findings and the available empirical data established through qualitative research, the people involved with improvement in the special education sector can positively inspire educational development for those living with a disability (Nind, 2008).

The most important thing is to determine the type of complications the students within a special education environment have. The needs of a student with the learning disability and those of the children with autism are structurally different. The needs of those suffering from impaired vision or blindness would also be different from the physically challenged and those that cannot walk due amputation. In all these situations, there are approaches used to identify the best intervention mechanisms for the affected population. Results from different case study groups can be used to decide best course of action to be implemented in each of the unique cases of disability (Friedensen, McCrae & Kimball, 2017).

Through collaborative action research, the researcher and the respondent can share their ideas regarding a subject of study. The sharing of ideas can be geared towards finding ways and methods of changing practices implemented at work while offering special education to the people living with disabilities and thus, collect the relevant information for a study (Gersten et al., 2005). This technique in qualitative research can inspire the ability of the involved parties to transform the level of education for those with special needs. The deliberation can take place between the professionals in different categories in the education sector such as the teachers and the policymakers.

Qualitative methods can be used in special education by developing the most suitable research tools and equipment that would aid substantial data collection. The research questions used in fact-finding during the research process should have a vivid description of the phenomenon in which the researcher is interested. The methodologies would then help in elucidating about the multiple approaches that the identified area of research can be given. Through this process, the researcher would understand the participant and the interaction would lead to the establishment of the required sets of data (Brantlinger et al., 2015)..

Conclusion

Qualitative methods can be implemented in special education using different strategies that would enhance the quality of education (Brantlinger et al., 2015). These methods are dependent on the type of research information required and the unique challenges of the participants. Among the qualitative methods that would yield results, include case studies, collective case studies, ethnography. Case study method is used if a particular phenomenon is thought or has been observed to affect a population in a similar manner (McDuffie & Scruggs, 2008). Unlike case study, where a single unit is studied, collective case study attributes to different phenomena in the study (Friedensen, McCrae & Kimball, 2017). Ethnography on the other hand studies the cultures of disabled persons by observing and recording their daily activities (Odom et al., 2005). Other than the strategies discussed above, the researchers could implement the grounded theory design, phenomenology, symbolic interactionism, narrative research, and many other techniques that would enhance the success of the special needs education (Gersten et al., 2005). The bulk of challenges faced during the research activities surround ethical issues in the field and the number of resources that can be invested in research activities. The ethical requirements are regulatory and legal demands be adhered to, to avoid legal charges during or after a research completion. The research professionals need to carry out a sufficient feasibility study before indulging in research activity and ensure the participants are qualified and ready to give the information that may be required of them (Nind, 2008).

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Continuous Teacher Professional Support for Effective Implementation of Basic Education Curriculum Framework

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Abstract

Continuing teacher professional support in curriculum implementation is critical in Kenya following the development of the Basic Education Curriculum Framework (KICD, 2017). The new curriculum is competency-based and emphasizes inquiry learning approaches. The 8-4-4 curriculum which it is planned to replace had been implemented mostly applying transmission approach and children were reported to be attending primary school and not learning (KNEC, 2010 & UWEZO, 2013). Teacher quality determines the quality of curriculum implementation and one means of ensuring teacher quality is by making continuing teacher professional development available for teachers. The objective of this study was to determine teacher preparedness for the implementation of the new curriculum and whether there was any established continuing teacher professional development programme for sustained teacher quality. The study sought to find out whether the pre-service and in-service training prepared teachers adequately for implementation of the new curriculum; whether teachers had adequate teaching-learning resources and whether they had any existing continuing teacher professional development programme. The Pedagogic Content Knowledge (CPK) model by Desimone (2009) guided this study. A case study was conducted in a public primary school in Narok County. The School was selected because it was used to pilot the new competency-based curriculum. It has 500 pupils and 15 teachers. All the 15 teachers in the school participated in this study. Data was collected using a questionnaire. Most 13(86.7%) of the teachers agreed that the pre-service and in-service courses did not prepare them adequately to implement the new curriculum. Another 12(80%) of the teachers did not have enough pupils and teachers' books; while 11(73%) did not know how to extract teaching materials from other sources besides class textbooks. However, about 7(46.6%) used a laptop to teach, and 9(60%) used a cell phone to create learning activities. All the 15 (100%) teachers agreed that continuing professional development programme was not established. Another 10(66%) agreed that they needed professional development programme and preferred distance learning mode. Teachers were not adequately prepared for Implementation of the new curriculum. It was recommended that teachers need to be provided with technology supported, continuous distance learning professional development programme for curriculum implementation incorporating inquiry teaching approaches. Online Open Educational Resources would also cater for inadequate teaching-learning resources.

Keywords: Curriculum, Implementation, Competency-Based, Professional Support

Introduction

In an effort to address the challenges the country faces in the 21st century, and the obligations of the Sustainable Development Goal Number 4, Kenya developed the Basic Education Curriculum Framework (BECF). The SDG 4 envisions inclusive and equitable quality education that promotes lifelong learning for all. The new curriculum is designed to nurture every learners' potential and enable each of them to become engaged, empowered and ethical citizen (the Republic of Kenya, 2017). This calls for quality teaching, resources and an enabling school

environment that would lead to active classroom practice. Active, inquiry teaching approaches would realize the core competencies clearly spelt out in the Basic Education Curriculum Framework (BECF). The core competencies include critical thinking and problem solving, communication and collaboration, creativity and imagination, digital literacy, self-efficacy, citizenship and learning to learn. Further, in order to realize the vision of the Basic Education Curriculum reforms, there is a need for teachers to be extremely conversant in content and skills. Teachers will be required not to be just computer literate but also to be able to use the ICTs as a teaching-learning resource to make learning more engaging. Teachers also need to be reflective professionals with extra improved skills and confidence in a variety of current instructional skills such as coaching, reflection, facilitating, and mentoring which require to be developed and supported. Teachers will then act as facilitators and role models who inspire every learner to be active learners and to apply the acquired knowledge in their real-life situations. This will be a daunting task for teachers if they have never experienced active learning and have not had the opportunity to observe teachers using active learning in classrooms.

The Basic Education Curriculum Framework (BECF) is famously called Competency Based Curriculum (CBC) developed to fill the gap in the 8-4-4 system of education named reflecting the eight years of primary education, four years' secondary education and minimum four years' university education. The CBC had been developed to prepare a learner who would be self-reliant (Republic of Kenya 2017). This was based on a study by Kenya Institute of Education in 2009 which had revealed that the 8-4-4 curriculum and its implementation were teacher-centered preparing learners for examinations (the Republic of Kenya, 2017); the curriculum was overloaded, and teachers lacked teaching-learning resources. Facilities were inadequate including classrooms which were too congested, and teachers were insufficiently prepared to implement curriculum (KIE, 2009). Learners were not learning (UWEZO, 2013). Only half of the children in Standard 1-8 aged 6-16 years acquired the highest numeracy competency expected of Standard two learners. Achievements in both reading and numeracy were below the standardized mean (Kenya National Examinations Council (KNEC, 2010)). The curriculum did not provide for the recognition of the learners' potential, gifts, and talents. The learning achievement measured in national examination result was very low.

The Basic Education Curriculum Framework was introduced in 2017 in a phase in phase-out strategy. It is, however, to be implemented by the same teachers who had implemented the 8-4-4 curriculum who could easily employ teacher centred teacher approaches if they are not guided on learner-centred teaching approaches. The teachers in colleges are trained in the same old way, and those practicing would require significant retraining. The main challenge is the decision on the mode of retraining to be employed for the teachers. The core competencies of the new curriculum are Communication and Collaboration, Self-efficacy, Critical Thinking, and Problem Solving, Creativity and Imagination, Citizenship, Digital Literacy and Learning to Learn (the Republic of Kenya, 2017). Values will be emphasized, and learners will be provided the opportunity to develop and apply their skills and knowledge. These require learner engagement in learning. The former classes 1-3 were changed to grades 1-3, and they take the new curriculum while class 4-8 continue with the 8-4-4 system of education which will be phased out yearly progressively.

Interventions in Curriculum Delivery

Delivery of quality education remains a challenge (Glennerster, Kremer, Mbiti & Takavarasha, 2011). The Uwezo report (2010) established that there were unsatisfactory levels of learning among primary school children. This led to interventions such as TUSOME (USAID, DFID & MOE, 2016). TUSOME (Kiswahili meaning 'Let's Read') and Primary Education Development Project (PRIEDE) are designed to improve the learners' literacy and numeracy skills respectively for the early years' education in grades 1,2 and 3.

TUSOME is a National Literacy programme funded by USAID targeting more than 60,000 teachers in Public primary schools in grades 1 to 3 and more than 5.4 million in grades 1, 2 and 3 pupils for improvement of literacy instruction outcomes (USAID, DFID & MOE, 2016). The programme is planned to improve teacher capacity in English and Kiswahili methodologies. It also provides pupils' textbooks, homework books and teachers' guides to grade 1 and 2. In addition, there is the provision of teacher pedagogical support and supervision by the educational officers, curriculum support officers, and head teachers, through classroom lesson

observations. This would enhance the capacity of the education sector towards improved literacy learning outcomes in the primary schools. However, in the midst of its implementation teachers are faced with the challenge of implementing CBC.

In addition, the PRIEDE implementation is also ongoing. The project is funded by Global Partnership for Education (GPE), supervised by World Bank and it is implemented by Ministry of Education in all public primary schools and public teacher training colleges in Kenya (World Bank, 2016). The project has four components among them improvement of early grade Mathematics competencies of learners through in-service training of grades 1,2 and 3 teachers and head teachers on Early Grade Methodologies (EGM). In addition, there is the provision of Early Grade Mathematics pupils' textbooks for grade1,2 and 3 and teachers' guides. The education officers and Curriculum Support officers offer pedagogical support to the teachers during the classroom lesson observations. The head teachers too are expected to offer curriculum supervision and leadership to the teachers (MOE, 2016). All these aspects are geared towards the improvement of early grade mathematics competencies among the learners and ensuring sustainability of quality education in the classroom, and thus similar intense intervention is required for competency-based curriculum implementation. In addition, the teachers need adequate preparation on how to infuse the competency-based curriculum competencies and values in the teaching of all the learning areas to achieve quality learning outcomes.

Educational Resources for teaching and learning

Educational resources are critical in supporting teaching and learning. They appeal to the natural body senses and make abstract concepts concrete and aid learning. The more senses the resources appeal to, the better the learning. Resources help the teacher to facilitate learning by engaging learners, raising their curiosity and enthusiasm. Modern technologies enrich educational resources. There is need to prepare teachers as well as build their research capacity through the strengthening of distance learning programmes to ensure access of the latest technologies (Annan, 2005) which become handy in use of technology-supported educational resources. There is increased awareness of varieties of school-based modes of teacher education through the use of Information Communication Technologies and the use of open educational resources (Moon, 2007). These could be used to enhance teacher training structures to offer articulation between theory and practice and ensure teachers are effective, reflective practitioners. In addition, high-quality Open Educational Resources (OER) are accessible and could improve the quality of education at all levels (Kanwar, Kodhandaran & Umar, 2010).

Teachers could be more innovative and maneuver technologies innovatively for use in class for increased learner achievement in specific classroom contexts. Gelonka (2014) reviewed technology and found good evidence to support the fact that technology could make a difference in developing the effective skills which spice up life which is the essence of education. There are a variety of technologies that could spice up teaching and learning such as videos, online forums, online video, case study discussions, smartcard, texting, email, online communities of learning offered by the Teacher Education in Sub Saharan Africa (TESSA) OERs which is a commendable opportunity for all teachers to explore.

Pre-service teacher professional Development and Continuing Professional Development

The Pre-service teacher training tends to fit the Lewin & Stuart (2002) criticism that primary teacher training college tutors do not generally have much professional experience of the primary school classroom. In Kenya, it is a two-year residential training conducted in primary teacher training colleges. The Minimum entry to the course is grade 'C' plain in the Kenya Certificate of Secondary Education (KCSE). This is an average grade where 'A' is the highest and 'E' the lowest. It is a concurrent course where the academic and professional activities are covered at the same time, and the teaching approach is mainly transmission (Mwangi, 2011). The transmission teaching approach would not be appropriate for early implementation of Competency Based Curriculum. Further, Akyeampong, Pryor, Westbrook & Lussier (2011) observe that the pre-service course is majorly theoretical. In Kenya pre-service model of a primary school teacher training is only a 12 weeks teaching practice period when the student teacher practice in primary schools. The rest of the two year course time is

theoretical. In some primary schools, with a teacher shortage, the teacher trainees are made to fill in gaps in subjects with no teachers (Kisirkoi, 2014). Hence the trainees lack the expected basic mentorship. Most critical, the course allows specialization in either science or art based primary school teaching subjects, but a teacher may end up teaching any subject offered in the schools with a teacher shortage. In addition, there is a gap between what the initial teacher education curriculum aims to achieve and what the newly qualified primary teachers' graduates could potentially offer in a real classroom situation (Akyeampong, Pryor, Westbrook & Lussier, 2011). They lack skills to handle actual classroom realities when they report to schools; due to the teacher shortage, they may not be provided initial induction.

Without a doubt teachers are significant in the delivery of quality education, consequently, their prominence in the learning process cannot be overemphasized. According to UNESCO (2005), there is a connection between low pupil achievement and teacher competency. Thus, the need for Kenyan policy initiatives to pay more attention to the knowledge, skills, and competencies for teacher trainees in the primary teacher training colleges to ensure that the pre-service teachers are fully empowered and ready to implement the Competency-Based Curriculum. They also need to be continually supported through quality in-service training.

Further, even the best pre-service education cannot prepare trainees enough to last the entire teaching career due to diverse classroom realities and societal dynamism, hence the need for quality continuing teacher professional development can't be overemphasized. Continuing Professional Development (CPD) makes a lot of difference to teachers' pedagogical knowledge and skill which eventually results in enhanced pupils learning outcomes (Dembélé & Lefoka, 2007). Paying little attention to CPD could be part of the explanation for the massive failure of students in national examinations as reported by Aduda and Wanzala (2017) and poor learning outcomes where students attend school without learning (KNEC, 2010 & UWEZO, 2013). Hence there are some semi-illiterate or complete illiterate school graduates.

Continuing Teacher professional development is crucial for sustained improvement in learner achievement. Changes in the classroom that result in learning outcomes depend on the classroom teacher, and this fact calls for continuing professional development of teachers (Borko, 2014). Children learning depends solely on what they do with the teacher in class. Quality of teaching in class has the greatest influence on learner learning achievement and learning outcomes (British Council, 2014). In teaching the critical issue is the learning achievement of the learners; what they know and can do and not just what the teacher knows and does. Classroom activities lead to students learning. The teacher's role is to facilitate children's learning. Quality of pedagogy by quality teachers most directly affect the quality of learning, and that should be the focus of continuing teacher professional development.

The learning outcome, following a quality curriculum, if well planned and guided would reflect the country's needs. In the long run, it would lead to the achievement of the country's goals and objectives. This requires quality teaching. Helping teachers to succeed in teaching and enabling children to learn is an investment in human capital (Borko, 2014). Quality education depends on quality continuing professional development to support teachers in class to implement new innovations as a result of a country's dynamism. It supports teachers to unlock their potential and facilitate children to learn. Teachers need the opportunity to refresh and enhance their skills throughout their professional life in high-quality professional development opportunity. This is because, in a lifetime of teaching, a teacher requires knowledge skills and behaviour that continuously develop and evolve as they work with changing generations with dynamic needs. The teachers need to develop the knowledge skills and emotional intelligence critical to good professional thinking, planning and practice with learners and colleagues throughout the phases of their teaching career. Teachers, therefore, require continuous professional development to enhance their knowledge and to develop new instructional structures (Borko, 2014). This is in recognition of the fact that what happens in the classroom between the teacher and the learner count highly for quality learning and result mainly from meaningful learner active engagement in their own learning. Needs of different classes may vary. Different subjects too have different needs in implementation strategy. This could lead to activities during teacher professional development to identify the different practical contexts and work out strategies

Continuing professional development for teachers through distance learning, especially with some online mode, would provide support and opportunity for teachers to not only access relevant teaching-learning resources but also models of quality teaching to emulate. They would access relevant support to enhance their preparedness in the implementation of Competency Based Curriculum in Kenya which they could modify to meet their classroom needs. The teachers would learn as they teach and practice their newly acquired skills.

Unfortunately, there appears to be inadequate preparation of practising teachers for competency-based curriculum delivery and existence of school-based continuing teacher professional development structure is questionable. There appears to be need to inform practice in the reforms in the teacher training policies and practice for improved teaching and learning that would culminate in improved learners' competencies, attitudes, and values which are significant in the realisation of Kenyan Vision, 2030 and SDG 4.

Statement of the Problem and objectives

There appeared to be a pedagogical gap in teacher implementation of curriculum in the classroom and most worrying in teachers who were meant to implement the newly introduced Basic Education Curriculum Framework known as Competency-based Curriculum which was meant to replace the 8-4-4 curriculum (the Republic of Kenya, 2017). The new curriculum requires active and inquiry learning approaches while the teachers had been used to transmission in an attempt to cover content and score high grades which could be part of the reason children attended primary school but were not learning (KNEC, 2010 & UWEZO, 2013). The Tusome programme and the PRIEDE project intervention even though they provided training in teaching methodology, the teachers were still not confident in the implementation of the Competency-Based Curriculum. The teachers in lower grades had participated in the piloting of the new curriculum but still verbally expressed lack of confidence in implementing the curriculum. Those in upper grades were also anxious about the newly introduced curriculum while they were not also quite good in implementing the 8-4-4 curriculum. That status necessitated the study from which this paper is based.

Objective and Guiding Concept

The main objective of this study was to determine teacher preparedness for the implementation of the new Curriculum. Specifically, the study sought to establish whether the pre-service and in-service training prepared teachers adequately for implementation of the new curriculum; find out whether there was any established continuing teacher professional development programme and to establish whether teachers had had adequate teaching-learning resources.

The Core Conceptual Framework by Desimone (2009) influenced this study. It explains that continuing teacher professional development increases teachers' knowledge, skills and positively impacts on teachers' attitudes and beliefs. This leads to the improvement of teachers' mastery of content and pedagogical skills. As a result, the teachers' instructional approaches are improved leading to improved learners learning outcomes. The model further stipulates that teachers during their own Continuing Professional Development learning, they should practice with activities which they will use in class with their learners. Teachers learn the way their learners learn. Therefore, during CPD they should learn and practice new knowledge and skills with their learners. The model explains that teacher professional development can only be said to be effective if its impact can be traced in the classroom as teachers teach and ultimately result in improved learning outcomes. The activities for teacher learning advocated by the model include in service, training, classroom observation, lesson demonstration, lesson development and use of teaching-learning resources.

This relates to this study where teachers require continuing professional development and need to learn as they teach. Their students immediately benefit as the teachers conduct activities for their own learning and lead to learners learning outcomes. The type of learning that meets the needs of the teachers expressed by the teachers could be distance learning which could be most enriched by online learning courses.

Methods and Materials

The methodology used in the study that resulted in this paper was a case study. It was conducted in a primary school selected because the school had been used to pilot test the Competency-Based Curriculum. The school just like the other public primary schools had also benefited from the implementation of the TUSOME and the PRIEDE projects in lower grades 1,2 and 3.

It has a population of 500 pupils and 15 teachers, and the student-teacher ratio is 34:1. The infusion of Competency-based curriculum competencies and values had been introduced in class 1,2 and 3. Class 4 to 8 continued with the 8.4.4 and will be phased out gradually. This means that all teachers, in the long run, will implement the competency-based curriculum. It was on this basis that all teachers were used in the study. All the 15 teachers, who included 4 early grade 1,2 and 3 teachers and the classes 4-8 teachers, participated in the study. Quantitative data was gathered from all the 15 teachers using a questionnaire developed by the researchers. In addition, qualitative data were collected through interview of one of the 4 teachers who taught lower grades. She also filled in the questionnaire. The teacher was selected for the interview because she had attended all the training sessions of the implementation of the newly introduced curriculum. She had also attended all the sessions of the training of implementation of the TUSOME programme and PRIEDE project. She also acted as the academics' school mentor.

Findings and Discussions

The objective of this study was to determine teacher preparedness for the implementation of the new Curriculum. Specifically, the study sought to establish whether the pre-service and in-service training prepared teachers adequately for implementation of the new curriculum; find out whether there was any established continuing teacher professional development programme and to establish whether teachers had adequate teaching-learning resources. Table 1 presents the findings.

Table 1: Findings on Preparedness of teachers to implement Curriculum including the competency Based. The table covers all the objectives.

Statement	Yes	%	No	%	Total %
I agree that I attended TUSOME, PRIEDE and CBC in-service training	4	100	4	0	100
I agree that my pre-service (initial teacher training) prepared me enough to teach in class	2	13.3	13	86.7	100
I agree that pre-service (initial teacher training) prepared me enough to teach CBC	0	0	15	100	100
I need continuous in-service training to teach in class	10	66.7	5	33.3	100
I need more training to teach CBC	15	100	0	0	100
I find the convenient type of training as where I leave my pupils and go away to learn in an organized training	5	33.3	10	66.7	100
I find the convenient type of training as where I do not leave my pupils and go away to learn but learn during my free time	10	66.7	5	33.3	100
The school has established teacher CPD structure	0	0	15	100	100
I find Distance learning, I learn as I teach my students is most the convenient for me	10	66.7	5	33.4	100
I understand the CBC competences	0	0	15	100	100
I can teach the CBC competences following TUSOME books	1	6.6	14	93.4	100
I have enough pupils textbooks for use when teaching	0	0	15	100	100
I have enough teachers references materials like guidebooks and Teachers handbook for teaching all learning areas	3	20	12	80	100
I know how to look for teaching materials from internet and from other reference materials	2	13.3	13	86.7	100

I use computer/laptop to teach in class	7	46.6	8	53.4	100
I search for internet online materials and activities to use for teaching my classes	3	20	12	80	100
I use my mobile phone to get online materials and activities for use in teaching and learning in my class.	9	60	6	40	100
I use flash disk to access and store teaching-learning resources	7	46.6	8	53.4	100
I use radio for teaching my class	5	33.3	10	66.7	100
I use TV for teaching my class	2	13.3	13	86.7	100
I use TESSA Open education Resources for teaching my class	1	6.6	14	93.4	100
I need more training to be able to use ICT tools and other resources for use in teaching	15	100	0	0	100

NB: Competency-Based Curriculum (CBC), Teacher Education in Sub Saharan Africa (TESSA).

Adequacy of Pre-service and in service in teacher preparation

The study sought out whether the pre-service and in-service training prepared teachers adequately for implementation of the new curriculum. All 15(100%) of the teachers disagreed that the pre-service training prepared them adequately to implement the school curriculum and 13(86.7%) disagreed that the pre-service training prepared them to implement the competency-based curriculum. Regarding whether in-service training prepared the teachers to implement the competency-based curriculum, all the 4(100%) lower grade teachers agreed that they attended the TUSOME, PRIEDE and CBC in-service training but all disagreed that they understood what the competences were about. A high number 14(93.4%) disagreed that they could teach CBC using TUSOME books. All 15(100%) agreed they need training to be able to implement CBC curriculum and 10 (66.7%) agreed they need more in-service training to teach their classes. Majority 66.7% prefer continuous professional development which take place as they continue teaching. They did not want the classes they teach to be left unattended.

The study also gathered qualitative data on the teacher preparedness to implement the curriculum from one of the grade 1,2,3 teacher selected because she was the academic adviser and she had attended all sessions of the in-service courses. The teacher reported as follows:

We were not adequately prepared to teach the competency-based curriculum. We were taken through a very short course of about 4 days but there was too much to be covered, and we could not explain most the competencies by the end of the course. We can't confidently teach the competency-based curriculum using the TUSOME books though we were advised to infuse CBC in TUSOME. In TUSOME, were well prepared and feel confident to teach. We have been trained for at least 2 days every school holiday since 2016. We are now trying to use the material in TUSOME to teach the Competency-based curriculum, but we are not so sure. PRIEDE training has been good too. Anyway, we can't say we know how to teach this new curriculum.

Structure for Continuing Professional Development

All 15(100%) teachers disagreed that there was an established structure for continuing teacher professional development programme. This makes it challenging to for teachers to keep improving and upgrading their teaching knowledge and skills and meet the learner emerging needs. Teachers also lack effective opportunity to exchange ideas.

Teaching Learning Resources

The study also sought to establish whether the teachers had adequate teaching-learning resources. All the teachers 15(100%) disagreed that they had adequate student books and teachers reference books and materials. However, few are innovative in search for teaching resources as follows 1(6.7%) use TESSA Open Educational

resources, 9(60%) use cell phone and 2(13.3%) use the TV for teaching. This makes it challenging to use active learning and to engage learners in their own learning meaningfully. Few teachers identified ICT as a teaching-learning resource. All 15(100%) of the teachers would like to train on use of ICT as teaching-learning resources.

Conclusions

The study established that the teachers were not prepared for curriculum implementation including the implementation of the new Basic Education Curriculum Framework, popularly referred to as Competency-Based Curriculum. The teachers did not have adequate teaching-learning resources for reference and for the pupil's use and no structure for continuing professional development.

Recommendations

It is recommended that a structured continuing teacher professional development programme is set up because many teachers feel inadequately prepared to teach by the pre-service training and the one-off in-service training which both equally left the teachers feeling ill-prepared to implement curriculum and even more difficult to implement new curriculum programmes. There is no existing structured continuing professional development programme. Distance learning, an online course would enrich them in CPD because already 7(46.6) use computer and 9(60%) search online teaching materials. Therefore, teachers need to be trained to search for resources from the environment and the internet. There is also need to train more teachers on the use of ICT as a teaching-learning resource and search and use of online teaching-learning resources.

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