Techniques Used by Teachers in Teaching Literacy and Numeracy in Selected Primary Schools in Kongwa District, Tanzania

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Abstract
The study investigated techniques used by teachers in the teaching of literacy and numeracy in selected Primary Schools in Kongwa District. It examined the factors that contribute to pupils’ inadequate literacy and numeracy skills. A cross-sectional survey research design, with a sample size (N=95) was used. Simple Random Sampling and Census Inquiry techniques were adopted. Quantitative data were analyzed using SPSS and the Qualitative data were analyzed using the verbatim method. The study findings suggested that there were literacy and numeracy issues in these particular Primary Schools since most of the Teachers lacked the skills needed to impart these abilities the majority of the Teachers never used the brainstorming technique, and others never used cooperative learning to teach literacy and numeracy. Likewise, few of these teachers' use playing games as a technique for teaching literacy and numeracy. The study concluded that the majority of the teachers never used brainstorming, cooperative learning, and the use of play games as techniques to deliver lessons to learners. The study recommends retraining Teachers, employing teachers who have qualifications and cooperative teaching.

Keywords: teaching, quality teaching, literacy and numeracy

1. Introduction
According to the Northern Ireland Audit Office (2013), literacy and numeracy are two fundamental skills for success in life and the modern global economy. Every child has to be literate and numerate because it is essential to their participation in school, their capacity to develop to their full potential, and their ability to contribute fully to society. The development of more complex abilities is supported by literacy and numeracy (DET, 2017). Tanzania has significantly increased the number of children registered in primary school, although the majority of children do not achieve competency in the early grades; for instance, just one in five (1/5) students in Grade 3 can read at the Grade 2 level (Uwezo, 2011). Sifuna (2007) asserts that since Tanzania gained political independence from the British in the 1960s, increasing access to basic education has been a priority for several stakeholders. The number of pupils enrolling in grade one (1) grew after the Universal Primary Education (henceforth UPE) policy was implemented in the 1970s. This was greatly facilitated by the nation’s villagization program, which required the establishment of at least one elementary school in each village (for rural areas) and street (for urban areas) (Ndiguye & Rao, 2018). The United Republic of Tanzania’s government began creating various educational methods known as Education Sector Development Plans (ESDP) for five years in 1997. These plans aimed to give all people the chance to learn fundamental literacy and numeracy skills to improve their contributions to the society they live (MoEVT, 2017). Alcock (2000) asserts that inadequate literacy and numeracy skills have affected Tanzania’s primary school system and continue to do so. This implies that most schools especially government schools experience this problem. According to Mrutu, Ponera, and Nkumbi (2005)
analysis of the Southern and Eastern African Consortium Education Quality (henceforth SACMEQ) nations, indicated that Tanzania had one of the lowest rates of primary school literacy and numeracy. Students are still illiterate and innumerable even though the subjects are taught in all schools and efforts to handle the issue are supported by the international community. On January 24 and 25, 2022, the National Examination Council of Tanzania (NECTA) administered a literacy and numeracy evaluation to Standard 2 students to determine the student’s proficiency in those skills (literacy and numeracy). For each set of skills, the students’ competencies were evaluated based on different concepts. For instance, the student’s literacy skills were evaluated based on their capacity to read a given passage quickly and effectively as well as respond to the comprehension-testing questions. Also, pictures were used to recognize the words written in capital and small letters. In numeracy skills, the pupils’ competency was assessed based on the ability to identify the missing numbers in the sequence, add or subtract numbers that do not exceed 999, and solve word difficulties. This assessment involved twenty-six (26) Regions of Tanzania’s Mainland including Dodoma, Arusha, Katavi, Mbeya, Mwanza, Njombe, and Mara, just to mention a total of 186 District Councils. The results show that, in reading skills, the analysis of pupils’ responses indicates that 33.16% had a weak performance. In writing skills, the analysis shows that 37.79% of the pupils had weak performance whereas, in numeracy skills, the performance was weak at 60.72% in identifying the missing numbers subtask (MoEVT, 2022). Children can learn fundamental life skills that are satisfactory and of high quality if they receive the full support and guidance of dedicated and qualified instructors. To be able to convey knowledge, skills, and attitudes to students, a teacher must grow technically and intellectually (UNESCO, 2008). A variety of policies have been formed by the Tanzanian government, such as the 2014 education and training policy, which emphasizes the value of Teachers’ career development. It strives to raise the value of education and training by improving in-service Teacher training programs and offering teaching and learning resources (URT, 2017).

1.1 Discourse of Teaching and Quality Teaching Concepts

Edmund Amidon (1967) explains that teaching involves classroom talk between the teacher and students and it takes place during specific defined activities. Actions made to facilitate another person’s learning are referred to as teaching as normative behaviour. Green (1968) stated that it is typical to refer to an act as teaching when a person transfers knowledge or abilities to another. Teaching can refer to imparting knowledge or sharing experiences, such as a lecture. Without instruction, pupils will struggle to communicate and fully engage in society because they will not understand literacy and numeracy. It is believed that education requires either art or science. It emphasizes the teacher’s capacity for creativity and artistic expression to establish a beneficial learning environment in the classroom. It makes clear the logical, mechanical, or procedural steps that must be performed for goals to be efficiently accomplished as a science (Charles, M. et al, 2021).

According to Nelsen and Daniels (2007), a product’s or service’s quality refers to its attributes that have an impact on its capacity to meet explicit or implicit demands. The qualifications that a teacher possesses for instructing students are correlated with quality teaching. This idea comes up frequently when people debate whether or not all pupils have been taught by instructors who are licensed to practice in the professions they are teaching. In discussions on whether the teaching profession has to be opened up for simple access, it is also a topic of discussion (Cochran-Smith & Fries, 2001; Darling-Hammond, 2000). From the standpoint of cognitive resources, effective teaching is predicated on the knowledge, abilities, and dispositions of instructors (Ball, Thames, & Phelps, 2008; Pajares, 1992; Shulman, 1987). Promoting student self-control and critical thinking in a teacher’s pedagogical strategies is a sign of quality teaching. Gaining students’ self-control and learning orientation has a positive effect on their academic performance (Alton-Lee, 2003). It is commonly believed that effective instruction has a significant impact on students’ academic achievements, if not the most significant one (Darling-Hammond & Youngs, 2002). Furthermore, it is claimed that to level the playing field for marginalized groups in education and to eliminate achievement gaps, quality teaching is desperately needed but inadequate, particularly in urban school contexts (Banks et al., 2005; Hollins & Guzman, 2005).

1.2 UNESCO (2006) argued that literacy is the capacity to create, communicate, and interpret meanings for a variety of reasons and in a variety of contexts. By improving your speaking, hearing, reading, and writing abilities, you can accomplish this. The development of literacy skills does not end once a child has attained basic literacy skills; rather, it is the beginning of a journey throughout life. Having a solid foundation in literacy allows learners to continue learning. Reading skills must be applicable in a range of contexts and be useful. It contains a continuum of learning to assist people in achieving their objectives, increasing their knowledge and potential, and actively participating in their community and greater society. Reading and writing are the two components of literacy. Everybody has a different level of knowledge. Each person’s output in his existence differs as a result. Good literacy skills also translate into excellent output from individuals. On the other hand, those who are illiterate will produce subpar work (Vágvölgyi, 2016). Once a child has mastered fundamental literacy skills,
growth of reading skills does not stop; rather, it is the start of a journey that lasts throughout life.

Numeracy is defined by VCAA (2017) as the knowledge, abilities, and dispositions that students need to utilize mathematics effectively under a variety of conditions. Having the mindset and capacity to effectively use mathematical knowledge and competence, necessitates being aware of and comprehending the function that mathematics plays in society. The majority of people frequently utilize mathematics in their daily lives, whether for leisure, academic study, or employment. People can better understand the natural and social worlds and how they interact by using algebra, functions and relations, logic, mathematical structure, and working mathematically, among other things. The mathematical reasoning, problem-solving, fluency, and knowledge that students encounter are more advanced and sophisticated. Through the use of math to make quick judgments and complete activities, these abilities enable students to respond to both normal and rare circumstances.

1.3 Purpose of the Study

The purpose of this study was to investigate the quality teaching of literacy and numeracy in selected Primary Schools in Kongwa District in Tanzania.

1.4 Objective of the Study

The objective of the study was to identify the techniques used by teachers in teaching literacy and numeracy.

1.5 Theoretical Review

This study was guided by constructivism theory as propounded by John Dewey (1952) because it is more appropriate for literacy and numeracy teaching, learning, and achievement. The majority of modern learning psychology was developed using Piaget, Vygotsky, and Bruner’s work from the 1980s, which is the foundation of Constructivism theory (CT) (Doll, 1993). It is a psychological theory of learning that explains how structures, language, activity, and meaning-making develop as opposed to one that merely identifies the structures and phases of thought or one that isolates behaviours learned through reinforcement. It is the theory predicated on intricate models of evolution and development. Sehar, Khurram, and Zamanc (2021) stated that learning should be based on the learner’s prior knowledge. According to constructivists, children build their understanding in a setting that supports learning rather than relying solely on teachers to impart knowledge. Teachers must adopt the transforming roles of facilitators to motivate students and help them become confident learners. Constructivist theory is a highly individualized endeavour that enables the application of internalized concepts, conventions, and overarching ideas in a useful, real-world context. Every human learning process involves the use of tools, signs, and other forms of mediation, according to Olorode and Jimoh (2016) Members of a society might create a tool or symbol to remedy an issue, but doing so changes how they participate in the culture. The computer, the automobile and other instances are examples of tools that people in a culture create with a certain goal in mind, but after utilizing them, the culture is altered. Language is also a tool for mediation, turning the process of learning (or the creation of information) into a communal activity. Therefore, CT has two major important aspects for generation, analysis, and discussion of the findings in this study. Firstly, how the environment that is context shape pupils’ learning. Secondly, the position of culture toward pupils’ performances and problem-solving.

2. Review of the Related Literature

2.1 Teaching Literacy and Numeracy, Tracing Practices

Dhand (2008) argued that teachers as an expert are expected to use appropriate teaching and learning techniques that will help children learn literacy and numeracy, those techniques are the use of pictures, independent practice, numbers, figures, storytelling, brainstorming, charts, diagrams, flashcards, mind map, simulation, role play, and sound can easily help pupils to understand literacy and numeracy.

Furthermore, Madina (2020), stated that kids memorize information rapidly and understand it very early through play, symbols, and pictures. Children acquire a variety of skills that aid in their reading and writing, because children have different levels of understanding, it cannot be assumed that all of them will be capable of reading, writing, also to perform fundamental mathematics problems with ease. As a result, literacy and numeracy require effort. Different teaching techniques are encouraged teachers to use when they teach. Reading, writing, and basic math skills do not typically develop; instead, they must be learned through various techniques irrespective of their Gender (Charles, M., & Khan, B. M., 2022).

Hoque (2016) stated that techniques drawn from several methods/approaches are frequently used by students to learn modern languages in class. Depending on the unique needs of their students, teachers choose techniques from a range of approaches. A teacher should be able to identify the instructional techniques that will best support a given learning objective (Kaahwa, Y. T., et al, 2023). This alignment is necessary for it to be effective. The teacher should take into account learning objectives, student needs, and the learning surroundings to make the best decision.
Furthermore, according to Vijayalakshmi (2019), and Zilola & Mumsuda (2020), modern teaching techniques have become widely used around the globe and are convenient for teachers. Children are well-educated and have excellent understanding thanks to modern teaching techniques. Internet use for educational purposes has increased in the modern era, which may specify that learners and teachers will use technology more frequently in open and flexible learning environments. Our educational system must be enhanced and broadened through the use of technology (Charles, M. et al, 2021). It is important to investigate both the intended and unintentional effects of adopting modern teaching techniques for teacher professional development. Both students and teachers must possess a certain set of knowledge, talents, and skills to use various modern teaching technologies. Teaching techniques can be used to make the learning environment more enjoyable, as explained by Neuman (2004). Children may be permitted to debate the picture, repeat the story, share their favourite activities, draw diagrams, and ask for multiple re-readings. Children connect with literacy and numerical concepts such as magnitude, enumeration, and spatial relations among others when they play (Seo & Ginsburg, 2004 as quoted in Osana & Rayner, 2010). All of this encourages learning in kids, which makes it easier for them to learn reading and math; in addition, kids will love the lesson because of the teaching methods used.

Furthermore, according to Mehjabin (2007), a teacher must choose the teaching technique that he or she believes would work best for the students in their class. Knowing a variety of teaching techniques will help a teacher make the best choice. As previously stated, H. Dhand (1990) asserted that successful planning is a prerequisite for effective teaching and that subsequent planning entails understanding how to enable a pleasant learning experience for all pupils. To determine which approach, plan, or technique will be most effective in a given circumstance, the teacher must apply his or her best professional judgment. This will assist teachers in the classroom with the enormous task of being familiar with a range of teaching techniques. The success or failure of each technique depends on a wide range of variables. The teacher must be alert to the appropriateness of the techniques to the topic. This brings out a learner as an agent of Change in Curriculum implementation (Stephen, A., et al, 2022).

Moreover, the study by J. Hackathorn, E. D. Solomon, and K. L. Blankmeyer (2011) declared that techniques are anticipated to support different levels of learning because each offers unique advantages to the teacher and students. They said that every teaching technique has its special advantages and works well for students at different levels of learning. Additionally, they claimed that using techniques for active learning does help to improve learning. Compared to other techniques for instruction, in-class activities produced the highest overall scores, whereas lecture methods produced the lowest overall scores. (Binek-Rivera & Mathews, 2004; Bonwell & Eison, 1991; Guthrie & Cox, 2001; Stewart-Wingfield & Black, 2005). Teaching techniques are creative strategies to increase student involvement, motivation, excitement, and perception of the value and relevance of the lesson. They also change the classroom’s pace (Anthony, W. et al., 2022). Children who learn by experience are more likely to employ higher-order thinking abilities like analysis, synthesis, and assessment, according to cognitive theory (Anderson & Krathwohl, 2001; Bloom, Engelhart, Furst, Hill & Krathwohl, 1956; Bonwell & Eison, 1991; Hackathorn et al., 2010). They are also more adept at understanding concepts in context, manipulating phenomena for their purposes, thinking conceptually and creatively about the subject matter, and better able to recall, retain, and memorize it (Donovan, Bransford, & Pellegrino, 1999; Driscoll, 2002; Rubin & Hebert, 1998; Serva & Fuller, 2004). Rickleman and Henk, 1991 carried out their study in Europe about techniques used to teach literacy and numeracy as an integral part of everyday life at home and in the community.

3. Methodology

Mixed-study paradigm both qualitative and quantitative approaches were used. The research design was a cross-sectional survey design to enable the researcher to collect data from various samples of the respondents at the same point in time. The researcher employed qualitative approaches to gather data from the respondents who intended to participate in the qualitative part of the study. The population of the study comprised three (3) primary schools in Kongwa District, twenty-seven (27) teachers, three (3) head teachers, sixty-four (64) parents of those schools, and (1) one District Education Officer. Sample size, as defined by Katamba & Nubuga (2014), is the part or subset of the entire study population. Krejcie and Morgan (1970) developed a table for selecting the appropriate sample size for a particular study population when predicting population proportions (or percentages) with a certain probability and level of precision.

Questionnaires, interviews and observation were adopted to gather data for the study as established by Sideman (1991) as observed in Nsudugba (2019) who asserts that the methods and instruments are selected based on their ability to what the study wants them to address as well as the paused research questions. Interviews were conducted with the District education officer and head teacher of the selected primary schools in the Kongwa District to supplement the information that was obtained from the questionnaires that were subjected to teachers. After the data was collected from the respondents, it was edited, coded and tabulated (frequencies, percentages
and means) using Statistical Package for Social Sciences (SPSS) version 23 to identify the techniques used by teachers in teaching literacy and numeracy in primary schools in Kongwa District. Qualitative data analysis involves simultaneous activities of gathering, analyzing and inscribing results (Amin, 2005). Words were used to describe the patterns and trends that existed in the data collected.

By using the table developed by Krejcie and Morgan, the sample sizes for the study were determined, as shown in Table 1.

Table 1. Population, Sample Size and Selection

<table>
<thead>
<tr>
<th>Types of respondents</th>
<th>Number of respondents</th>
<th>Sample size</th>
<th>Sampling technique</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>District education officer</td>
<td>1</td>
<td>1</td>
<td>Census inquiry</td>
<td>Interview</td>
</tr>
<tr>
<td>Head Teachers</td>
<td>3</td>
<td>3</td>
<td>Census inquiry</td>
<td>Interview</td>
</tr>
<tr>
<td>Teachers</td>
<td>30</td>
<td>27</td>
<td>Simple random sampling</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>Parents</td>
<td>76</td>
<td>64</td>
<td>Simple random sampling</td>
<td>Focused group discussion</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>95</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Krejcie and Morgan’s (1970) sample size determination table.

This sample helped to provide relevant and adequate data for the study. The formula for selecting the sample size was determined using the Krejcie and Morgan (1970) sampling table. Teachers and parents were chosen by simple random sampling so that each respondent had an equal chance to participate in the study while taking into account fair distribution according to gender and numbers. District Educational Officer and Head Teachers were chosen by using census inquiry.

3.1 Data Presentation, Analysis and Interpretation

3.1.1 Response Rate

In this section, the details presented in Table 2 highlight the statistics summary for the study’s response rates. Details are expressed as seen in Table 2 below.

Table 2. Summary of study response rates of head teachers, deputies and teachers

<table>
<thead>
<tr>
<th></th>
<th>HT</th>
<th>DEO</th>
<th>Teachers</th>
<th>Parents</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>3</td>
<td>1</td>
<td>30</td>
<td>76</td>
<td>110</td>
</tr>
<tr>
<td>Response</td>
<td>3</td>
<td>1</td>
<td>27</td>
<td>64</td>
<td>95</td>
</tr>
<tr>
<td>Response rate</td>
<td>80%</td>
<td>100%</td>
<td>90%</td>
<td>84%</td>
<td>86.4%</td>
</tr>
</tbody>
</table>

Source: Primary data 2023.

The response rate was calculated to find out if the sample size was sufficient for the study. In this study, 30 teachers were sampled giving a total of 30 questionnaires. However, the questionnaires that were returned were a 27 return rate of 90% and 76 parents were sampled giving a total of 76 questionnaires but those who managed to return were 64, a return rate of 84%. Meanwhile, in the interview guide for the District Educational Officer, the response rate was 100%, as well as the response rate of the Head Teachers was 100%. William (2017) considers a response rate of 66.7% in each category to be very good.

3.1.2 Findings on Identifying the Techniques Used by Teachers in Teaching Literacy and Numeracy

The research question of this objective was “What are the techniques used by teachers in teaching literacy and numeracy?”

Table 3. Opinions of respondents on techniques used by teachers in teaching literacy and numeracy

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD</th>
<th>D</th>
<th>NS</th>
<th>A</th>
<th>SA</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>I use brainstorming techniques to teach</td>
<td>10</td>
<td>17</td>
<td>0</td>
<td>6</td>
<td>4</td>
<td>3.06</td>
<td>1.27</td>
</tr>
</tbody>
</table>
The findings indicate that the majority 17 (61.3%) of the respondents disagreed that they use brainstorming techniques to teach literacy and numeracy. This statement gives the impression that those teachers who never used brainstorming techniques to teach literacy and numeracy lacked the skills of teaching literacy and numeracy using brainstorming a skill that is necessary for teaching.

During an interview with one of the key informants, 1 said:

*We have few teachers who have skills of teaching pre-primary, so we have decided to take teachers who do not have skills of teaching pre-primary to teach those classes. These teachers are not well qualified, so we have decided to take them to another school which is doing better than us especially private schools to learn how they teach by using different techniques, though the program is hard because to reach there we have to use transport and the school does not have some money as you know we have free education. We receive money from the government but it’s not enough.*

Therefore, it means that most of the respondents disagreed that they use brainstorming techniques to teach literacy and numeracy. This statement gives the impression that those teachers who never used brainstorming techniques to teach literacy and numeracy lacked the skills of teaching literacy and numeracy using brainstorming a skill that is necessary for teaching.

The findings from above Table 3 show that the minority 8(29.1%) of the respondents agreed that they use playing games as a technique of teaching literacy and numeracy, while 19(71%) disagreed. The mean was 2.39 while the standard deviation of 1.931 was captured implying that some respondents were in disagreement with the statement that they use playing games as a technique of teaching literacy and numeracy. In confirmation of these findings, a focused group discussion with parents explained that;

*Our community has few teachers and therefore we encourage any teacher available to teach in any class in the school since there is a big problem of scarcity of teachers yet we have a huge population of learners. As you are seeing here we have temporary teachers who have just finished senior 6. We are in a hard time for sure, and the authority needs all pupils to understand literacy and numeracy also to pass their national examinations.*

This means that a minority of the respondents agreed that they use playing games as a technique of teaching literacy and numeracy. This implies that the teachers are assigned classes that they are not trained to teach which makes them teach without using the necessary techniques of delivering lessons to learners in the lower primary section.

Table 3 shows that the majority 17(78%) of the respondents disagreed that they use cooperative learning and role plays to teach literacy and numeracy, while 10(15%) agreed. The mean was 3.26 while the standard deviation of 1.03 was captured implying that the majority of respondents disagreed with the assumption statement that they use cooperative learning and role plays to teach literacy and numeracy. In confirmation of these findings, during an interview with the key informant, he said that;

*Most of our teachers in this district are teaching classes but they are not supposed to teach. This is because we have very few teachers with qualifications to teach early childhood classes. These classes are not easy to teach; they need someone who is very well trained from college. We have teachers who do not have the skills to teach these classes. In 2019, the Government decided to take secondary teachers to teach primary schools because of the scarcity of teachers in primary schools. These secondary school teachers teach according to their experiences which they have but they don’t have any skills for teaching primary school pupils and there is no seminar that they gave them.*

This means that the majority of the respondents disagreed that they do not use cooperative learning and role
plays to teach literacy and numeracy.

The study found that only 26(96.8%) of the respondents agreed that they use demonstration to teach literacy and numeracy, whereas 1(3.2%) disagreed. The mean was 3.99 while the standard deviation of 0.512 was recorded implying that the majority of the respondents agreed with the assumption that they use demonstration to teach literacy and numeracy. It means that most of the respondents agreed that they use demonstration to teach literacy and numeracy. This interpretation is supported by a submission from a key informant who said:

Yes, demonstration is very necessary to enable learners to contextualize content, but the problem is that we have many students in one class. One class has 100 students, as a result, some of the pupils may not be able to hear and see what the teacher is demonstrating. Also, demonstration needs practice therefore many pupils will not be able to practice the demonstrated skills. Due to the large number of pupils, it is very hard for all pupils to understand, because others will be behind.

The study established that the majority 24(90.4%) of the respondents agreed that they use mind map techniques in teaching literacy and numeracy, whereas only 3(9.7%) disagreed. The Mean was 2.00 and the standard deviation was 0.775 implying that most respondents agreed that they use mind map techniques in teaching literacy and numeracy. Therefore, it means that most of the respondents agreed that they use mind map techniques in teaching literacy and numeracy.

Results of linear regression analysis on techniques used by teachers in teaching literacy and numeracy are presented in Table 4.

Table 4. Regression Coefficients for Quality Teaching of literacy and numeracy in selected primary schools in the Kongwa district, Tanzania

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>11.182</td>
<td>2.803</td>
<td>3.989</td>
</tr>
<tr>
<td></td>
<td>Techniques used</td>
<td>1.812</td>
<td>.180</td>
<td>.704</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Literacy and numeracy in selected primary schools in the Kongwa District.*

The results in Table 4 revealed a regression coefficient of $\beta=0.704$. This finding revealed that techniques used have a strong and positive statistically significant influence at ($t= 3.989$, $p<0.05$) on teaching literacy and numeracy in selected primary schools in the Kongwa District, Tanzania. This implies that techniques used account for 70.4% of the changes in teaching literacy and numeracy in selected primary schools in Kongwa District. Tanzania’s other factors remain constant. Therefore, null hypothesis H01 “There is no statistically significant influence of techniques used on teaching literacy and numeracy in Kongwa District, Tanzania”, was rejected.

4. Policy Embedded Discussion, Conclusions and Recommendations

4.1 Discussion

The study findings revealed that there was a moderate positive significant correlation between techniques used by teachers and teaching literacy and numeracy in selected primary Schools in Kongwa District, Tanzania ($\beta=0.503$, $p < 0.05$). This implies that an increase in techniques used by teachers results in an increase in teaching literacy and numeracy in selected primary Schools in Kongwa District, Tanzania, with other factors remaining constant.

The discussion arising from the findings offers a direction to reveal that there was a moderate positive significant correlation between techniques used by teachers in teaching literacy and numeracy in selected primary Schools in Kongwa District, Tanzania. This is in consonant with Madina (2020), who stated that kids memorize information rapidly and understand it very early through play, symbols, demonstration and pictures. Children acquire a variety of skills that aid in their reading and writing, because children have different levels of understanding, it cannot be assumed that all of them will be capable of reading, writing, also to perform fundamental mathematics problems with ease. As a result, literacy and numeracy require effort.

Relatedly, Dhand (2008) & Mitchel (2020) Argued that teachers as an expert are expected to use appropriate teaching and learning techniques that will help children to learn literacy and numeracy, those techniques are the use of pictures, independent practice, numbers, figures, storytelling, brainstorming, charts, diagrams, flashcards,
mind map, simulation, role-play, games and sound can easily help pupils to understand literacy and numeracy. In addition to that Hussain, (2020) said that teaching literacy and numeracy by using different techniques is considered to be very effective in lesson delivery and it also directly invites learners to participate in the learning process. About, Anderson et al, (2001) argued that teaching by using technique enables learners to learn by experience. According to Anderson & Krathwohl, (2001); Bloom, Engelhart, Furst, Hill & Krathwohl, (1956); Borwell & Eison, (1991); and Hackathorn et al., (2010) supported the above that Children who learn by experience are more likely to employ higher-order thinking abilities like analysis, synthesis, and assessment, according to cognitive theory. Not only that but they are also more adept at understanding concepts in context, manipulating phenomena for their purposes, thinking conceptually and creatively about the subject matter, and better able to recall, retain, and memorize it (Donovan, Bransford, & Pellegrino, 1999; Driscoll, 2002; Rubin & Hebert, 1998; Serva & Fuller, 2004). Additionally, according to Pluck and Johnson (2011), these techniques help students to have “wow” moments. This increases the students’ curiosity and capacity for reasoning.

Also, these findings concur with Tsai (2017) argued that brainstorming is considered to trigger innovation among learners which promotes creativity. In line with that Seechato (2017) stated that learners need the potential of developing their critical thinking and problem-solving skills by brainstorming. Similarly, Hoque (2016) declared that techniques drawn from several methods/approaches are frequently used by students to learn modern languages in class. Depending on the unique needs of their students, teachers choose techniques from a range of approaches. A teacher should be able to identify the instructional techniques which will best support a given learning objective.

4.2 Conclusions

The study concludes that the majority of the teachers never used brainstorming, cooperative learning, and the use of play games as techniques to deliver lessons to learners since the findings indicate that most teachers did not use games and brainstorming to teach literacy and numeracy due to the lack of skills to teach by using the above techniques. The use of teaching techniques allows the teachers to be confident in the class to accomplish their objectives. Each teacher can choose the technique that is best for him or her and their students. The language, ideas, culture, and subject matter of the teacher should all be reflected in these teaching techniques. There ought to be a connection between thoughts and actions to fulfil learning objectives. It also concluded that the teachers do not use strategies like using remedial teaching and talking classes. Taking class aids learning in a variety of ways, teaching materials are very important in the communicative approach. They may lighten the classroom, offer more diversity and excitement to language instruction, and encourage students to speak the language in addition to reading and writing it by presenting situations that illuminate the meaning of the words used.

Furthermore, it is concluded that there is limited infrastructure which contributes to overcrowding of classes. The learning environment is influenced by the school’s buildings, furniture, and equipment. This is also underscored by the mixing of learners who have special needs and those without special needs and teachers lack the techniques on how to use the limited space. Not only that but also there is a limited number of qualified teachers to handle both the special needs learners and the normal learners, and no developed pedagogies to ensure the teaching of literacy and numeracy.

4.3 Recommendations

The study recommends that there be retraining of teachers and seminars so that teachers can be able to use brainstorming, and cooperative learning and also use games as techniques to deliver lessons to learners since the findings indicate that most teachers did not use games and brainstorming to teach literacy and numeracy due to the lack of skills to teach using the above techniques. It is encouraged to use ward meetings to address and resolve issues that prevent the development of literacy skills in a particular ward. Teachers themselves should meet and share ideas on how to use techniques of teaching. Schools should encourage teachers to use play games in their classes to ensure that students are involved in class. Specifically, the Government/ school Managers should recruit teachers who are creative in games for students also who have the skills to use teaching techniques and different approaches to teaching. School management should encourage teachers to use talking classes to encourage learners to read and write in class. Specifically, the focus should be on the teaching of literacy and numeracy.

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