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EFFECTS OF PLAY WAY AND TRADITIONAL METHODS OF INSTRUCTION ON ACADEMIC ACHIEVEMENT OF PRIMARY THREE PUPILS IN MATHEMATICS IN SOUTH-EAST GEOPOLITICAL ZONE

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ABSTRACT

The purpose of the study is to find out the effects of play way and traditional methods of instruction on Academic Achievement of Primary Three Pupils in Mathematics. The study conducted in the five states that make up the south-east geopolitical zone of Nigeria namely, Abia, Anambra, Ebonyi, Enugu and Imo State. The study adopted a descriptive survey design. The population of the study was made up of male and female teachers teaching mathematics at primary three level. The population of the study was 6,140 made up of 2,900 male teachers and 3,240 female teachers. Stratified random sampling technique was used to constitute the number of research subjects of this study. Each of the five states represented a stratum. Five percent (5%) of male and female teachers teaching mathematics were randomly selected. This made it possible for 145 make teachers and 162 female teachers to be selected after five percent sampling from twenty-four primary schools to be represented in the sample. The major instrument for research question is questionnaire. A modified 4-point scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) was used to analyze the data after the instrument was validated by three experts in Educational Administration and Planning and Measurement and Evaluation. The reliability test for the study is 0.77 using test-retest method. The data will be analyzed using percentage score to answer the four research questions while pie chart and bar chart was equally used to further illustrate the four research questions. A-twenty item research item questionnaire was constructed by the researcher while any score below fifty-percent (50%) is accepted while any score below forty-nine percent (49%) was rejected. The study revealed that both play way and traditional methods can be used in teaching mathematics at that level by adopting collaborative teaching, structure play activities, integrate play, pupil centered learning, active approach and role learning amongst others. Conclusions and Recommendations were made on the way forward.

Keywords: Play way method, Traditional method, Methods of instruction, Academic achievement, Mathematics.

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Introduction

A teacher is someone who has successfully undergone formal training in a teacher educational institution to be called a teacher. During the training, he/her must have acquired knowledge of principles and practice of education as well as his teaching skills. Being in contact with the learners in the classroom, the teacher determines materials suitable for learners and organizes activities that will enable him deliver the acquired knowledge and skills to the learner (Udensi & Oteh, 2023).

To effectively perform this role, the teacher must be involved in the art of teaching exercise using different methodology of teaching to stimulate interest of the learners to meet his needs and expectations. For him to achieve this, the teacher must use different methods of teaching techniques in order to organize, transmit knowledge, attitudes and skills to the learner in accordance with the laid down principles of teaching. This is because, teaching entails setting the state and creating an enabling environment for learning occur which involves carrying a wide of functions which include explaining, informing, directing, administering, applying, unifying and solving of problems. All these Udensi & Oteh is aimed at bringing about total change in behavior of the learner.

Thus, the way and manner the teacher is able to impact the knowledge and skills to the learner or present his materials to the learners and engage them in the task on hand is referred to as methodology of teaching (Onyebukwa-Nwanoro, 2017). Methods are therefore ways a teacher adopts or used by someone to induce somebody probably a student into having interest in what goes around him. The success of any form of methodology in education therefore depends on how each of them is carried out (Amuda; 2017).

This shows that methodology is very vital in any teaching and learning situation in the classroom. The method adopted by the teacher, whether play way, traditional method of instruction, discussion method, group discussion or field trip may promote or hinder learning (Alazor; 2017). This is because, any of the methods may sharpen mental activities at primary school level which are the bases of social power as it may discourage, initiate or I duce curiosity, thus making self-reliance and survival difficult.

Methodology can be viewed in two perspectives. According to Onwuka (1984) and Mkpa (2020), the first is a science and second is a way of teaching. As a science, it is basically the study of learning methods while as a process it is a course of action or method of operation which varies according to circumstance, methodology and means methods which are the types of activities pursued by teachers and students together in discussion, group work, surveys and demonstrations (Onwuka, 1984).

In classroom, it is the duty of the teacher to ensure any methodology adopted by him or her to enhance teaching and learning is in the best interest of the students, the topic and the lessons itself. According to Udensi & Oteh, whatever

methods he adopts must be guided by certain psychological principles especially those that have to do with motivation and intellectual development of the child. This is because, no child is interested in learning unless he is induced and the teacher has clear understanding of the characteristics of the children of different age. This is to guide him (teacher) in knowing the best instructional materials and techniques he will select while teaching.

It is therefore important that the teacher identify in advance the best teaching methods that pupils at the primary three classes can relate with and share ideas and interact academically within themselves. This is because of unimpressive performance of pupils in mathematics lessons which experts attributed to poor methods of teaching the subjects in school by teachers. They advocated total reform or restructuring of the present day primary three pupils mathematics in terms of concepts, content, techniques, use of instructional materials and qualified teachers to teach so as to meet the present day realities by ensuring teachers who are to implement these changes receives training on modern techniques of teaching mathematics through seminars, workshop and conference to improve their knowledge and skills on the subjects (Okeke & Okeke 2011; Offiah & Okonkwo; 2011). It therefore becomes necessary that activity based instructional methods such as play way and traditional methods of Instruction be employed to see whether or not they will help to improve primary three pupil's academic achievement in mathematics in south-east geopolitical zone.

The Concept of Play Way Method and Traditional Method of Instruction on Academic Achievement

The concept of play way method according to Okeke & Okeke (2011), is a teaching approach that emphasizes on learning through play, exploration and hands-on activities. It is based on the idea that children learn best when they are engaged in enjoyable and meaningful experiences. Awofala (2010) and Awofala (2012) stated that, play way method is important in teaching of mathematics because it encourages active learning, develops problem-solving skills, enhances creativity and imaginative skills and foster social skills and team work among pupils/children. This is why the method is used by teachers to build confidence, self-esteem and develops fine and gross motor skills of children at that level of education.

In his own view, Okela (2012) opined that, play way method encourages curiosity and exploration, stimulate learning run and engaging pupils to develop at their own pace by preparing them for future activities. This is because of the recognization that pupils learn best when they are engaged in playful interactive activities. This is to allow pupils to explore, experiment, discuss and discover things at their own pace which will help them in future to develop deeper understanding of mathematical concepts or symbols.

The use of this method in teaching pupils primary three mathematics will

therefore give room for their active participation in the lesson rather than being passive learners. Their activities involvement is in the area of projects and hands-on experience. This stems from the fact that the method aims at fostering the overall development of the child in the areas of cognitive, social, emotional and physical development. This holistic development not only helps to widen the pupil's skills but also his ability to be creative, problem-solver, communicator and collaborator (Harold; 2020).

According to Hughes & Hughes (1989), play method of instruction emphasized on joyful learning based on enjoyable experience for pupils n primary schools with fun element into their learning process will make them feel engaged and motivated to learn. That is why the regarded play method as contextual learning that is relevant and connected to the child's real-life experience and environment activities, games designed for children pf this age, therefore must be meaningful and relevant to the child's everyday needs since it creates room for nurturing and engaging pupils to learn in an environment that is conducive for development of love, knowledge and skills that will help build a strong foundation for their future academic and personal growth.

For this method to be effectively implemented in classroom settings, Varkey foundation (2018) and Ogbonna (2021) noted that creating a stimulating learning environment, incorporating structured play activities, fostering spirit of inquiring and exploration and adapting to individual learning styles will help to enhance teaching and learning in the classroom. This is because each pupil, have different learning performance due to their individual differences. Hence, they will like to explore topics at their own pace provided it align with their interests, expectations and strengths. Therefore, using play with elicit instruction will help balance play based activities with targeted instructions and direct teaching of key concepts and skills to pupils using experiences acquired over the years as spring board for introducing new content and reinforcing the previously learned material, thus, encouraging pupils to make connections between their play-based learning and broader curriculum.

Play way method provide guidance and scaffolding to guide and direct pupils on how to navigate the play-based activities and make meaningful learning connection to help students to overcome challenges as well as expanding their base of understanding. This helps them (pupils) to reflect on their learning experiences and share their insights with the class by implementing these strategies, the teacher can create classroom environment that will foster active engagement of pupils, explore and apply the knowledge and skills they gain through play way method-based learning.

Since play method is always connected with joy and since experienced and thinking individuals recognize the value of happiness in life, it is important that the teacher should retain an abundance of play way method in school life. Every teacher should therefore, realize that without the spirit of happiness work will give rise to

initiative, innovations, the creation of art and thing of beauty.

The traditional methods of instruction on academic achievement of pupils in primary three mathematics on the other hand, tends to be more teacher centered with pupils passively receiving instructions through lectures, text books and worksheets. This can lead to reduced pupil engagement and motivation due to the fact that pupils are not actively allowed to participate actively in the teaching and learning process. Thus, the approach can be deserved as lack of personalization due to the fact that little consideration is given to individual learning styles, prior knowledge of the subject or the diverse needs of the pupils. This makes if different for some pupils to grasps the material.

According to Udensi and Oteh (2023), the emphasis on memorization of facts and the application of pre-determined procedures, rather than promoting critical thinking and problem-solving tends to limit opportunities for collaborative learning among pupils can hinder the development of important social and communication skills. As a result of this, pupils find it difficult in retaining knowledge. Research has shown that passive learning through lectures and textbooks can result in rapid forgetting of information, as pupils struggle to deeply understand and internalize the concepts. According to Anyachebelu (2018), this is responsible for the widening gap usually associated with high performing and low performance pupils as it may not adequately support the learning needs expectations and aspirations of diverse pupils populations despite the fact that the traditional method of teaching do limit pupil's participation, affects their critical thinking, problem-solving ability, laying more emphasis on memorization, focusing on content and teacher centered, rather than on engagement, motivation, critical thinking, problem-solving, meaningful understanding, diverse resources, apply critical thinking and little opportunities for inputs, the traditional method of instruction according to Mkpa (2018) do have some benefits.

According to Onwuka (2018) and Mkpa (2018), this method of instruction (traditional method) provides a structural framework for content delivery by ensuring the coverage of core curriculum. The effectiveness of traditional methods of instruction therefore can be enhanced when combined with more pupil centered active learning approach that promote deeper engagement and understanding rather than the neglect of individual difference or emphasizing more on role learning, repetition, drill and relying heavily on textbooks.

In recent years, there has been glamour for a new model of teaching method that can incorporate more interactive technology to enhanced and personalized learning experiences to address the limitations of traditional method of instruction so as to improve pupil academic performance in classroom. Some of the pupil centered active learning approaches listed by Okafor (2020) that can be effectively combined with the traditional instruction methods include; the flipped classroom model which exposes pupils to

new content through video lectures or online resources before class thereby allowing class time to be devoted to active learning activities such as problem-solving, discussion and collaborative projects. Others are problem-based learning (P.B.L) which involves presenting pupils with open-ended real-world problem or scenarios for them to research upon. According to Mkpa (2018) using inquiring based learning, collaborative learning, hand-on experiential learning and technology enhanced instruction when combined with the core content and structure of traditional instruction can create a mix engaging personalized and effective learning environment that caters for the diverse needs of pupils and promotes deeper understanding and academic achievement.

In play way method, teachers act as facilitators providing a supportive environment that encourage children to explore, experiment and learn through play. This approach is particularly effective in early childhood education, as it helps children develop essential skills and values that lays the foundation for future academic success of pupils. Thus, play way method of instruction makes one to behave, develops worthwhile values and attitudes, understanding of the feelings, emotions and prejudices of other pupils. In all, it helps to develop insights and understanding of basic principles, concepts and procedures associated with teaching of mathematics to primary three pupils.

In using any of these two methods of instruction to teach primary three pupils' mathematics in order to achieve academic success, Okeke & Okeke (2011), discovered that pupil's prior knowledge of pre-requisite mathematical concepts improves student's achievement in mathematics. This is because, meaningful learning occurs only when there is interaction between learners (pupils) existing knowledge and the new learning material. To ensure there is effective learning, it is the duty of the teacher to use objectives why teaching mathematics as they can serve as an anchor for new knowledge.

The behavioral objectives according to Okeke (2015) are smaller, observable and measurable because they contain three parts of behavior namely; the behavior itself, the condition and the criterion. Behaviors in general describes what the learners (pupils) are going to do, how or when it is going to perform the behavior and why. The remediation is used to correct any error noticed in the process of teaching mathematics. Any deficiencies will assist the teacher in knowing how to handle future lessons in mathematics and start making efforts towards the corrections of the error if at all it will come. This will help bridge the gap between the old method and the new method. In order to avoid continuous use of ineffective methodology to teach pupils that level there is the need to adopt a new approach to teaching and learning of concepts, procedures and other techniques of teaching mathematics at that level to avoid this unbated poor performance in mathematics. Based on this, there is the need to conduct further research work on the effect of play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics in

south-east geopolitical zone made up of (Abia, Anambra, Ebonyi, Enugu and Imo State) respectively in order to promote pupil's interest and academic achievement in mathematics.

Statement of the Problem

Mathematics is regarded as the king of all science subjects. It is in recognition of the role it is playing in evolution of science and technology in the country that the federal government in its National Policy on Education (2013) made the teaching and learning of the subject compulsory at both primary and secondary schools by listing it as one of the core subjects to be studied by students. Reports from parents, teachers and chief examiners reports in recent years across the five states of the south-east geopolitical zones of Nigeria, have shown that pupils/students perform poorly academically in mathematics. Some blame it on parents while other shifted he blame on government who fail to provide the necessary support both the teachers and students needs in terms of physical facilities and equipment as well as other instructional materials. Others still blame it on poor teachers, teaching method, lack of commitment, non-payment of salaries and allowances of teachers, no provision for teacher's growth and development and general attitude of students towards the study and learning of the subject mathematics. In other to overcome the phobia of mathematics and mathematics topics such as addition, subtraction, multiplication, division, simple interest and counting etc. this study will seek to find out the effect of play way and traditional method of instruction on academic achievement of primary three pupils in mathematics in the south-east geopolitical zone of Nigeria.

Purpose of the Study

The purpose of the study is to find out the effect of play way and traditional method of instruction on academic achievement of primary three pupils in mathematics. Specifically, it sought:

1. To determine the percentage score of male and female pupils taught using play way method of instruction on academic achievement of primary three pupils in mathematics.
2. To determine the percentage scores of male and female pupils taught using traditional method of instruction on academic achievement of primary three pupils in mathematics.
3. To ascertain the benefits of pupils taught using play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics.
4. To determine the strategies for improving pupils taught using play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics.

Research Questions

The following research questions were posed to guide the course of this research:

1. What is the percentage scores of male and female pupils taught using play way method of instruction on academic achievement of primary three pupils in mathematics?
2. What is the percentage scores of male and female pupils taught using traditional method of instruction on academic achievement of primary three pupils in mathematics?
3. What are the benefits of pupils taught using both play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics?
4. What are the strategies for improving pupils taught using play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics?

Research Method

The area of study is the five states that makes up the south-east geopolitical zones of Nigeria namely; Abia, Anambra, Enugu, Ebonyi and Imo States. The study adopted a descriptive survey design because of the nature of information south in the study. The population of study was made up of male and female teachers teaching mathematics at primary three pupils. Based on 2022 academic session, the population was 6,140. The breakdown of this number was 2,900 for male teachers and 3,240 for female teachers. Stratified random sampling technique was used to constitute the number of research subjects of this study namely, male and female teachers from the five south-east states geopolitical zones of Nigeria each of five states represented a stratum. The random selection was done through balloting with replacement. From each of the primary three schools chosen, five percent (5%) of male and female teachers teaching mathematics were randomly selected. This made it possible for one hundred and forty-five (145) male teachers and one hundred and sixty-two (162) female teachers from twenty-four (24) primary schools to be represented in the sample. The major instrument used for this study was item questionnaire of two parts, part A and B. "A" was on demographic data of the participants while "B" was a modified four-point Likert scale which sought information on the participant on the effects of play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics. Part B has four options of S.A = Strongly Agree, A = Agree, D = Disagree and S.D = Strongly Disagree. The instrument was validated by two (2) experts in the Department of Educational Administration and Planning Nnamdi Azikiwe University, Awka and two (2) from Measurement and Evaluation of the same University. The reliability of the instrument was determined as 0.77 using a test-retest method. Data collected after administration were analyzed using percentage score for the research questions. Any score above fifty percent (50%) is accepted while A-twenty item questionnaire was constructed and used for study.

Presentation of Results

Research Question 1: What is the percentage scores of male and female pupils

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taught using play way method of instruction on academic achievement of primary three pupil's mathematics?

Table 1, Responses of male and female teachers on the use of play way method of instruction in teaching mathematics to primary three pupils

		Male teachers. N = 145					Female teachers. N = 162				
S/N	**Item questionnaire**	**N**	**Agree**	**%**	**Disagree**	**%**	**N**	**Agree**	**%**	**Disagree**	**%**
1	It gives room for active participation of pupils.	145	120	82.75	25	17.25	162	145	89.51	17	10.49
2	It helps to foster pupil's holistic development.	145	95	65.51	50	34.49	162	130	80.24	32	19.76
3	It encourages joyful learning.	145	130	89.55	15	10.45	162	136	83.95	26	16.50
4	It provides guidance and scaffolding.	145	106	73.10	39	26.90	162	140	86.41	22	13.59
5	It encourages contextual learning.	145	128	88.28	17	11.72	162	138	85.18	24	14.82

Based on the researcher's decision to take (50%) and above as accepted level, the items 1-5 were rated by both male and female teachers high. In other words, that using play way method to teach students to learn mathematics were rated 82.75, 65.51, 89.55, 73.10 and 88.28 and 89.51, 80.24, 83.95 and 86.41 and 85.18 respectively. 17.25, 34.49. 10.45, 26.90 and 11.72 as well as 10.49, 19.76, 16.05, 13.59 and 14.82 were not accepted by both the male and female teachers by saying disagree on the same item's questionnaire 1-5.

Research Question 2: What is the percentage scores of male and female pupils taught using traditional method of instruction on academic achievement of primary three pupil's mathematics?

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Table 2, Reponses of male and female teachers on the use of traditional method of instruction in teaching mathematics to primary three pupils

		Male teachers. N = 145					Female teachers. N = 162				
S/N	**Item questionnaire**	**N**	**Agree**	**%**	**Disagree**	**%**	**N**	**Agree**	**%**	**Disagree**	**%**
6	It encourages passive learning and difficulty in retaining knowledge.	145	98	67.59	47	29.01	162	141	87.03	21	12.97
7	It encourages personalization approach to learning with little consideration for individual learning styles.	145	109	75.18	36	24.82	162	119	73.46	43	26.54
8	It limited pupil's ability for critical thinking and criticisms.	145	135	93.10	10	6.90	162	144	88.89	18	11.11
9	It encourages memorization of facts.	145	141	97.24	4	2.76	162	140	86.41	22	13.59
10	It reduces collaboration among pupils.	145	116	80.00	29	20	162	137	84.57	25	15.43

Based on the researcher's decision to take 5% score and above as accepted level, all the item questionnaire 6-10 were rated 67.59, 75.18, 93.10, 97.24 by male teachers and 87.03, 73.46, 88.89, 86.41 and 84.57 by female teachers respectively showing acceptance. In other words, both male and female teachers accepted the sue of traditional method of instruction in teaching mathematics will aid pupil's academic achievement in primary school's mathematics. Male teachers and female teachers that disagree with the item questionnaire 6-10 rated them 29.01, 24.82, 6.90, 2.76 and 20.00 as well as 12.97, 26.54, 11.11, 13.59 and 15.43 respectively meaning Disagree.

Research Question 3: What are the benefits of pupils taught using both play way and traditional methods of instruction on academic achievements of primary three pupils in mathematics?

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Table 3, Responses of male and female teachers on the benefits of pupils taught using both play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics.

		Male teachers. N = 145					Female teachers. N = 162				
S/N	**Item questionnaire**	**N**	**Agree**	**%**	**Disagree**	**%**	**N**	**Agree**	**%**	**Disagree**	**%**
11	Traditional methods help in widening of achievement gaps between high performing and low performing pupils.	145	129	88.97	16	11.03	162	152	93.90	10	6.10
12	Traditional methods provide structured frame work for content delivery in the classroom setting.	145	138	95.17	7	4.83	162	150	92.50	12	7.50
13	Play way method helps teachers in the class to stimulate student's needs and interest.	145	122	84.13	23	15.87	162	160	98.80	2	1.20
14	Play way method help to foster spirit of inquiring and exploration among teachers and pupils.	145	108	74.49	37	25.51	162	133	82.10	29	17.90
15	Play way method assist in collaborative learning rather than passive learning.	145	112	77.24	33	22.76	162	141	87.03	21	12.97

The researcher's decision to take 50% and above as acceptance level, all the item questionnaire 11-15 are accepted as the benefits for using play way and traditional method as the benefits for using play way and traditional methods of teaching to teach pupils in primary three mathematics by male and female teachers in the south-east geopolitical zones of Nigeria. All the items were rated high by them starting from the highest to the lowers. The male teachers and female teachers rating are as followings 95.17-74.49 and 98.80-82.10 percent respectively. Both male and female teachers disagree with items 11-15: 11.03, 4.83, 15.87, 25.51 and 22.76 as well as 6.10, 7.50, 1.20, 17.90 and 12.97 respectively.

Research Question 4: What are the strategies for improving pupils taught using play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics?

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		Male teachers. N = 145					Female teachers. N = 162				
S/N	Item questionnaire	N	Agree	%	Disagree	%	N	Agree	%	Disagree	%
16	Incorporate structure play activities strategy.	145	129	88.97	16	11.03	162	152	93.90	10	6.10
17	Adoption of integrate play with elicit instruction strategy.	145	138	95.17	7	4.83	162	150	92.50	12	7.50
18	Adoption of collaborative strategy to retain knowledge.	145	122	84.13	23	15.87	162	160	98.80	2	1.20
19	Adopting pupil centered active learning approach strategy to promote deeper engagement and understanding of pupils needs and expectations.	145	108	74.49	37	25.51	162	133	82.10	29	17.90
20	Adopting to role learning, repetition and drill strategy to encourage assessment-based evaluation.	145	112	77.24	33	22.76	162	141	87.03	21	12.97

Based on the researcher's decision to take (more than 50% of the cases) as acceptance level, all the items on the questionnaire item 16-20 are accepted as strategies for improving pupils taught using play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics. All the items questionnaire were rated by both male and female teachers high ranging from 88.28-75.18 and 92.50-80.24 which means acceptance respectively. The percentage of male and female teachers that disagree with the items 16-20 are 15.87, 20.76, 24.82, 20 and 11.72 as well as 19.76, 13.59, 16.05, 7.50 and 12.97 respectively. This means disagree, this percentage of male and female teachers disagree with them questionnaire 16-20.

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Figure 1, shows the graphical representation of gender population of the study using a pie chart.

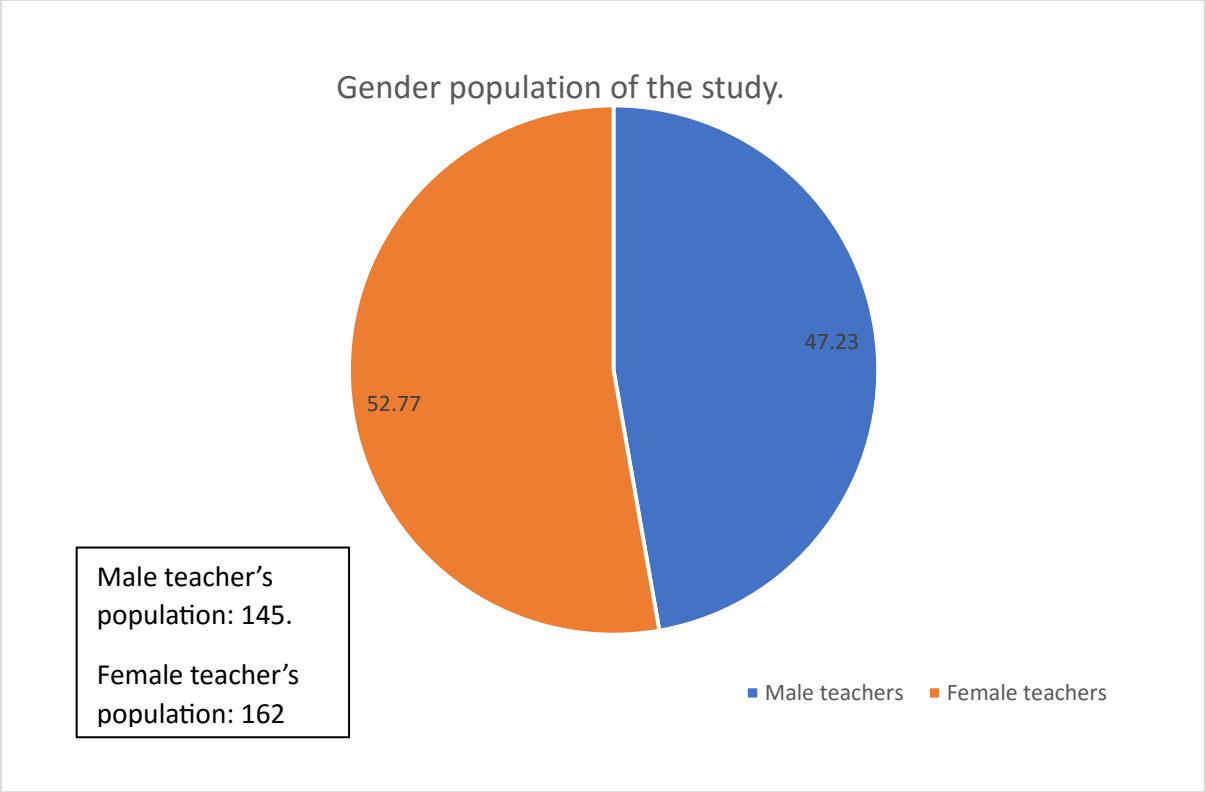


Figure 2, shows the graphical representation of the percentage scores of both male and female teacher's responses to using play way method of instruction on academic achievement of primary three pupils in mathematics on a bar chart.

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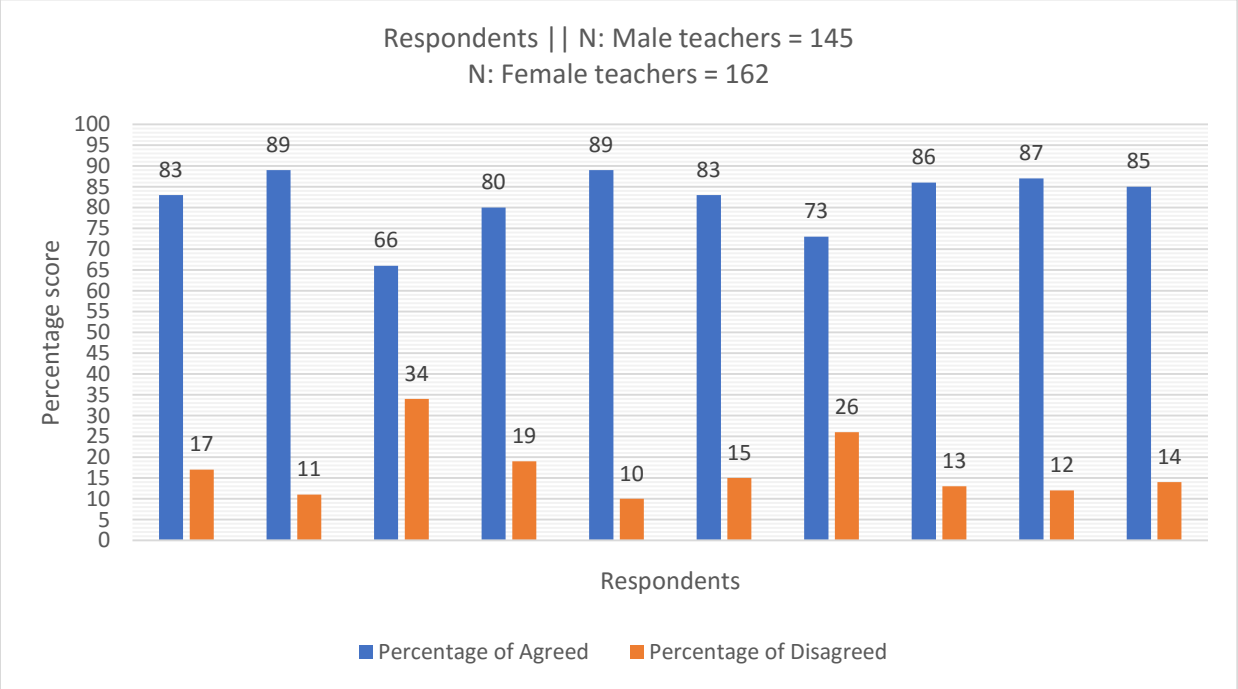


Figure 3, shows the graphical representation of percentage scores of male and female teacher's responses to using traditional method of instruction on academic achievement of primary three pupils in mathematics using a bar chart.

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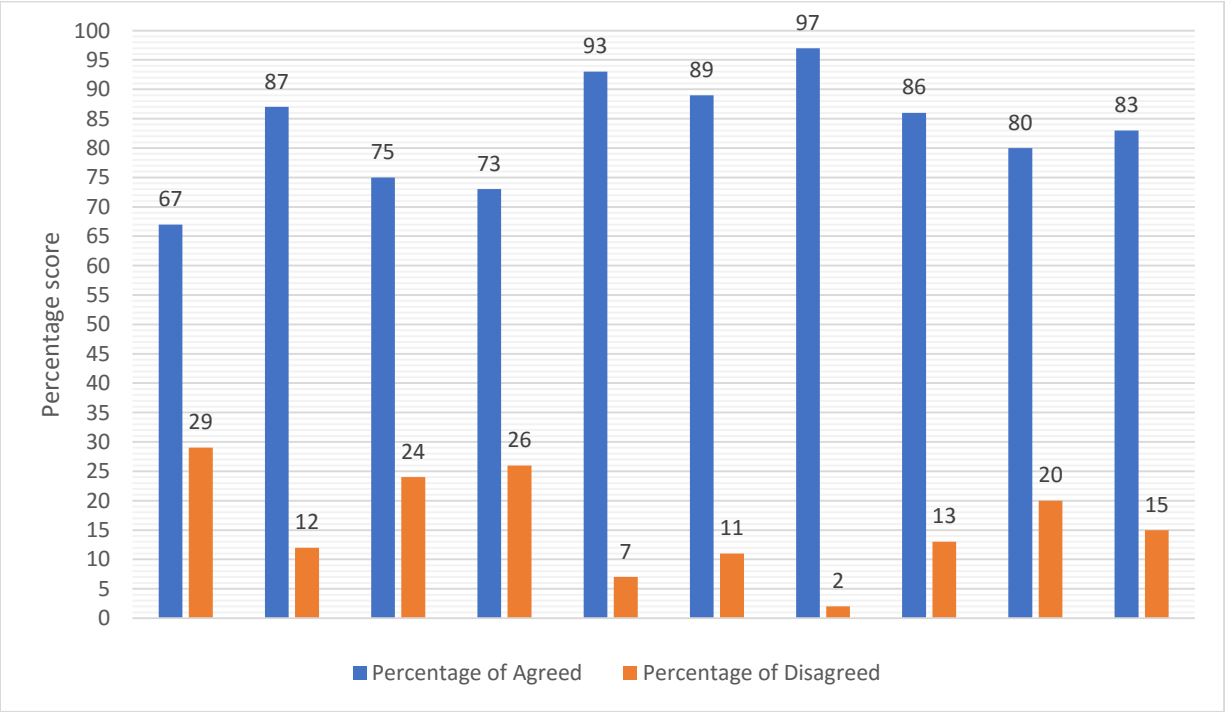


Figure 4, shows the graphical representation of percentage score of the benefits of pupils taught using both play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics using a bar chart.

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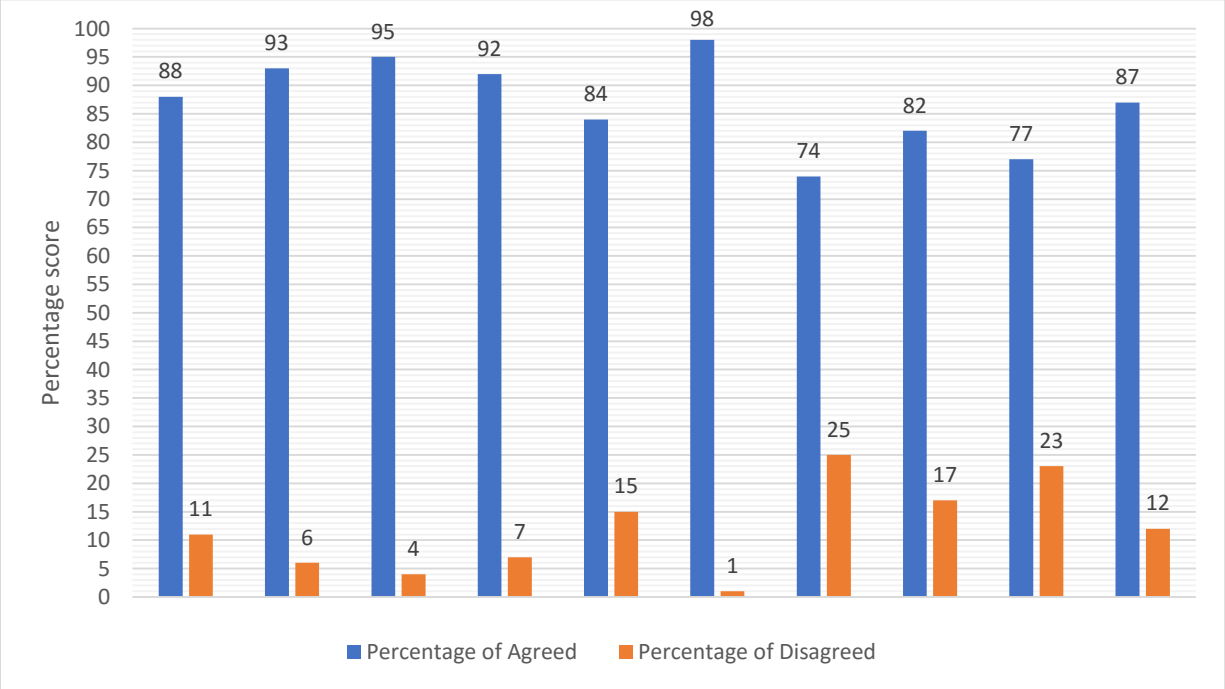
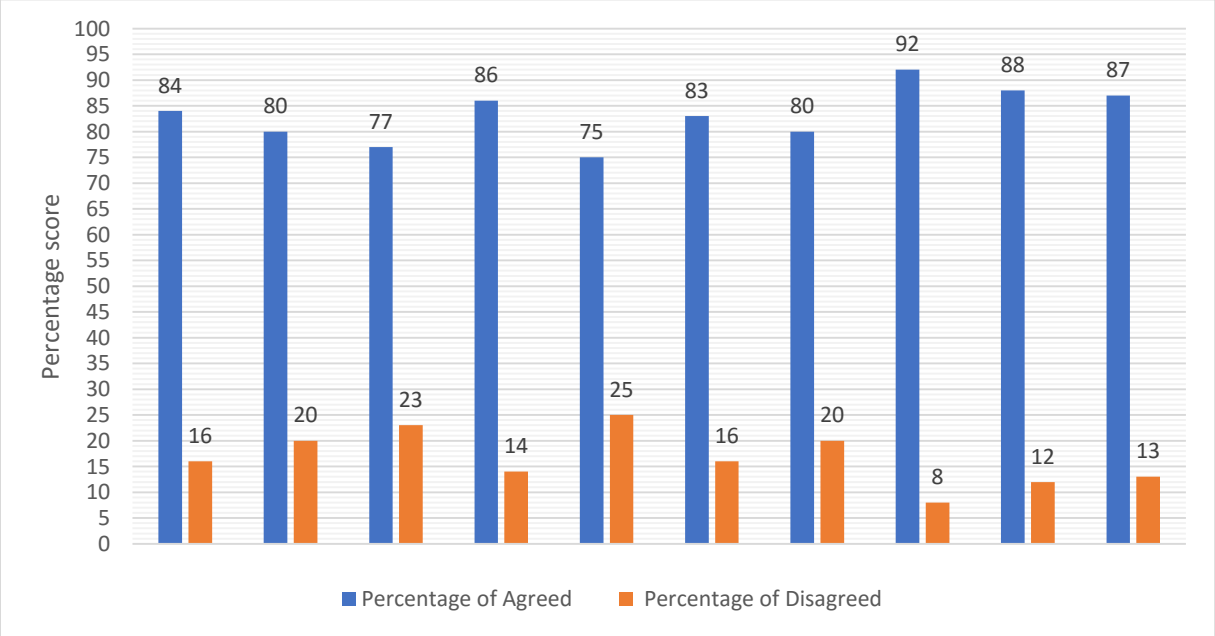


Figure 5, shows the graphical representation of percentage scores on the strategies for improving pupils taught using play way and traditional methods of instruction on academic achievement of primary three pupils in mathematics.

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Discussion of Findings

The tables above show that all the male and female teachers agreed that all listed items, in items questionnaire 1-5 are ways play way method can enhance pupil's academic achievement in primary three mathematics. This agrees with Okeke and Okeke (2011), Awofala (2010) and Awofala (2012) and Okela (2012) views that play way method of teaching encourages active learning, develops problem-solving skills, enhances creativity and imaginative skills and foster social skills and team work among pupil. This is why the method is used by teachers to build confidence, self-esteem and develops fine and gross motor skills of children at the level of education. The method encourages curiosity and exploration, stimulate learning run and engaging pupils to develop at their own pace.

Table 2, showed that all the male and female teachers agreed that all items listed encourages passive learning and difficulty in retaining knowledge, encourage personalized approach to learning, limit pupil's ability to critical thinking, encourages memorization of facts and reduces collaborative learning among pupils. This finding is in line with Udensi and Oteh (2023), Anya Chubelu (2018), Mkpa (2018) and Onwuka (1948) who noted that traditional method of instruction provides a structuring framework for content delivery by ensuring the coverage of core curriculum. Thus, effective combination of pupil centered active learning approach will promote deeper engagement of students in

learning how to stimulate pupils to develop interest in mathematics.

Table 3 is on the benefits of using both playing method and traditional method in teaching mathematics. It was discovered that both will help widening of achievement gaps between high and low performers in the class it will help pupils foster team spirit, collaborative learning and spirit of inquiring. This finding is in line with Okafor (2020) views that the combination of the two methods (play way and traditional method) will go a long way in corporating more interactive technology to enhanced and personalized learning experiences to address the limitation of traditional method of instruction so as to improve academic achievement of pupils in teaching mathematics.

Table 4 is on the strategies for enhancement of teaching of mathematics. The findings is in line with Mkpa (2018) and Okeke and Okeke (2011) who stated that incorporating structural play activities, adoption of integrate play elicit instruction strategy, collaborative strategy to retain knowledge, adopting pupil centered active learning approach strategy to promote deeper engagement and understanding of pupils needs and expectation and role learning repetition and drill strategy will encourage pupils assessment based on evaluation. All these point to the fact that the two methods of teaching are good if well utilized. The pie chart on figure 3 and bar graph on figure 2, 3, 4 and 5 is further used to explain the data collected from research questions 1, 2, 3 and 4 on tables 1, 2, 3 and 4. The implication is that gender plays on role I determining the type of teaching methods to be adopted in teaching mathematics to primary three pupils in primary school.

Conclusion

Play way and traditional methods is helpful in achieving socially desirable ends. Both are shared activity. Therefore, they embrace other people. That is why, it is a means of fostering team spirit. If properly applied, both the play way method and traditional method will enable the pupil to learn with ease and to accomplish much with less strain because both stimulates interest and provides variety in classroom as it is believed it helps pupils in understanding of the feelings, emotions, values, attitudes and prejudices of other people. In the same view, traditional methods can be used by teachers to teach new words, imparting information to the pupils, stimulate their interest from passive learner to inquiring learner, explorer and transmission of knowledge and skills to the learner and impart active learning to the pupils through collaborative learning. A combination of the two methods is therefore important to ensure the success of classroom teachers in teaching mathematics.

Recommendations

Since classroom teacher can use play way method and traditional methods in teaching mathematics, it is therefore recommended that teachers of mathematics identify the best strategies to adopt in enhancing active learning, cooperative learning, fostering of team spirit that will

enhance deeper engagement and understanding of pupils needs and expectations. This is because it will help the pupil while on the part of the teacher to retain knowledge and skills to adopt collaborative learning, incorporate structure play activities, team learning, pupil centered active learning approach and integrate play to elicit instruction and critical thinking. This is to remove any form of passive learning usually associated with traditional method of teaching. The use of these two methods in teaching and learning will therefore help bring life to school work, help pupils to be independent, develop the spirit of love and understand association, discovery, exploration, team spirit, interest, knowledge and skills and spirit of competition amongst pupils.

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