Comparism of Study Skills, Exam Preparedness and Attitudes Toward Mathematics among Pupils in Public and Private Schools in Oyo State, Nigeria

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Abstract

The study examined study skills, examination preparedness, and attitudes toward mathematics among pupils in Oyo State, Nigeria. A descriptive survey research design was adopted for the study. Three research questions and three hypotheses were formulated to guide the study. The target population of the study was all basic five pupils out of which 600 pupils constitute the sample size. A self-constructed questionnaire titled study skills, examination preparedness, and attitudes toward mathematics questionnaire (SSEPAMQ) was used for data collection. The instrument was content validated while the Cronbach Alpha reliability yielded an index of 0.84. Mean and standard deviation were used to provide answer to the research questions raised, while the hypotheses were tested using t-test. The findings revealed that there is moderate level of study skills towards mathematics among pupils, moderate level of examination preparedness, and positive attitudes towards mathematics in Oyo State, Nigeria. Also, there was significant difference in study skills, examination preparedness, and attitudes towards mathematics between public and private primary school pupils in Oyo State. This implies that policymakers need to shape curricula, teacher training programmes, and resource distribution to ensure that students are equipped with the study skills necessary for effective teaching and learning mathematics. It was recommended among others that pupils should be encouraged to engage in active learning strategies so as to promote their study skills, while increase in problem solving skills will reduce anxiety and increase their examination preparedness which will promote pupils' positive attitude towards mathematics.

Keywords: Primary education, Mathematics attitude, Mathematics study skill, Public school, Private school

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Introduction

Education as the whole process of the development of an independent and integrated personality, it entails training and acquisition of special skills, knowledge, attitude and values needed by an individual to be responsible and which will enable him to contribute his own quota, to the growth of the society of which he is a member. Basic education serves as a cornerstone for personal development and societal progress, with mathematics playing a pivotal role in shaping critical thinking and problem-solving abilities. However, despite its importance, mathematics often evokes mixed emotions among learners, ranging from confidence to anxiety. Understanding how pupils approach mathematics, particularly through their study skills, examination preparedness, and attitudes, is vital for improving learning outcomes and fostering a positive educational experience.

Mathematics is a cornerstone of primary education, forming the foundation for logical reasoning, problem-solving, and numeracy skills. At the primary school level, mathematics learning is not just about mastering numbers and operations but also about developing a mindset that values curiosity, exploration, and persistence. It is during these formative years that pupils' attitudes, abilities, and perceptions of mathematics are shaped, which can influence their engagement with the subject in later years. Mathematics is one of the core subjects in primary school curriculum and performance in the subject is crucial for pupils' admission to scientific and technological professions (Stuart, 2010). However, there are still many learners in the primary school who struggle in learning Mathematics. There has been persistent poor performance in this subject in primary schools.

The competence gain in the study of Mathematics is widely used in all spheres of human life. Mathematics plays a key role in shaping how individuals deal with the various spheres of private, social, and civil life (Anthony & Walshaw 2019). This justifies the compulsion of the study of the subject by all students who go through basic and secondary education in most countries. Mathematics is therefore a core subject at these levels of education in Nigeria. It is regrettable, therefore, that in the contemporary times many students struggle with Mathematics and perform abysmally low in their examinations in most jurisdictions. Underachievement in Mathematics is particularly recognized as a major problem in schools serving disadvantaged communities (Mkhabela 2014). Learners' achievement in Mathematics may be influenced by attitude towards the subject. According to Ma and Kishor (2013) the variable 'attitude' is one of the most important factors that relates to achievement in Mathematics. Stuart (2010) argued that teacher; peer and family attitudes towards Mathematics may positively or negatively influence learners 'confidence in Mathematics. It is therefore essential to analyse the influence of the learners' attitudes and beliefs on learning Mathematics in the primary schools.

Despite the international significance of Mathematics, the teaching and learning of Mathematics in Nigeria is in a very poor state. Many pupils are failing it and have developed a very negative attitude for it. It is a compulsory subject in primary schools and pupils are required to pass it in order to progress to the next classes. However, many pupils do not pass it in the primary schools. Educational researchers have expended time and energy trying to unravel the possible

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causes of students' poor attitudes and performance in Mathematics. An area that has not been explored extensively is the influence of teacher attitude on student attitude towards the study of the subject. Effective teachers facilitate learning by truly caring about their students' engagement and creating the right atmosphere that enhances student learning (Noddings, 2015). They have high yet realistic expectations about enhancing students' capacity to think, reason, communicate, reflect upon and critique their own practice, and they provide students with opportunities to ask why the class is doing certain things and with what effect (Watson, 2012). The relationships that develop in the classroom become a resource for developing students' attitudes and Mathematical competencies and identities. These resources are very essential to the learning of Mathematics.

Study skills refer to the strategies and techniques that learners use to acquire, organize, and retain knowledge. Effective study skills, such as time management, note-taking, and active learning methods, significantly influence academic success (Rosenbaum, 2021). In mathematics, study skills are particularly crucial due to the subject's cumulative nature, requiring a strong grasp of foundational concepts to build upon. However, many pupils struggle with developing efficient study habits, leading to gaps in understanding and performance. Studies suggest that poor study skills correlate with low achievement in mathematics, highlighting the need for targeted interventions (Zimmerman & Schunk, 2012).

Examinations remain a primary mode of assessing mathematical competence in schools. Examination preparedness encompasses not only mastery of the subject matter but also the psychological readiness to tackle assessments. Pupils who are well-prepared tend to approach exams with confidence, while those who are underprepared often experience test anxiety, which adversely affects performance (Cassady & Johnson, 2012). Preparing effectively for mathematics exams requires a blend of consistent practice, problem-solving, and understanding of exam patterns. Nonetheless, disparities in preparedness levels among pupils point to underlying issues such as unequal access to resources, variations in teacher support, and differing levels of self-discipline. Examination preparedness is an essential aspect of academic success, particularly in subjects such as mathematics, where skills and knowledge need to be solidified through practice and understanding. In the context of primary school education, preparedness involves not only the ability to recall mathematical concepts but also the application of problem-solving strategies, critical thinking, and emotional regulation. For young pupils, the process of preparing for a mathematics exam can be influenced by various cognitive, emotional, and environmental factors that either facilitate or hinder their readiness (Boaler, 2016).

The mathematics curriculum itself plays a crucial role in shaping pupils' preparedness for exams. A well-structured curriculum that progressively builds on concepts and provides ample opportunities for practice ensures that pupils are not overwhelmed when the time comes for assessment. For example, curricula that introduce mathematical concepts through real-life problems or hands-on activities help pupils relate abstract concepts to everyday situations, thus increasing their understanding and readiness (Boaler, 2016). Furthermore, curricula that emphasize not just procedural knowledge (solving for unknowns) but also conceptual understanding (understanding why certain operations work) can help pupils feel more confident in tackling

unfamiliar problems during exams. Assessment practices that align with the curriculum's focus on deep understanding rather than rote memorization further prepare pupils for exams that require critical thinking and problem-solving skills (Beilock et al., 2010).

Attitude as a concept is concerned with an individual's way of thinking, acting and behaving. It has very serious implications for the learner, the teacher, the immediate social group with which the individual learner relates, and the entire school system. Attitudes are formed as a result of some kind of learning experiences learners go through. This is mimicry, which also has a part to play in the teaching and learning situation. In this respect, the learner draws from his teachers' disposition to form his own attitude, which may likely affect his learning outcomes (Yara 2019). Teachers with positive attitude towards Mathematics were inclined to stimulate favourable attitudes in their pupils. This immediately puts the teacher in the spotlight as one whose attitude, expressed in their behaviour, has a telling effect on students. Teachers' attitude and beliefs play a very significant role in shaping classroom practices (Bolhuis & Voeten, 2014).

Attitudes towards mathematics are a critical factor in determining pupils' engagement and success in the subject. These attitudes, shaped by personal experiences, societal perceptions, and educational environments, can be broadly classified as positive or negative. Pupils with a positive attitude towards mathematics are more likely to persevere through challenges, enjoy learning the subject, and achieve higher academic results (Hannula, 2012). Conversely, negative attitudes, often stemming from early failures or stereotypes, can lead to avoidance behavior and a self-fulfilling prophecy of poor performance. Addressing these attitudes requires creating supportive learning environments and emphasizing the relevance of mathematics to everyday life.

The interplay between study skills, examination preparedness, and attitudes towards mathematics is complex and mutually reinforcing. For instance, pupils with effective study skills are often better prepared for exams, which can enhance their confidence and foster a more positive attitude towards mathematics (Ashcraft & Krause, 2017). Conversely, negative attitudes may deter pupils from developing strong study habits or adequately preparing for assessments, perpetuating a cycle of low achievement. Recognizing and addressing these interconnected factors is crucial for educators, parents, and policymakers seeking to improve mathematics education.

Globally, mathematics performance remains a concern. According to Mullis et al. (2020), mathematics achievement varies significantly across regions and socioeconomic groups, with many pupils failing to meet basic proficiency levels. These trends highlight systemic challenges in how mathematics is taught and learned, particularly in developing countries. Locally, anecdotal evidence and examination reports suggest that a large proportion of pupils exhibit poor study habits, inadequate exam preparation, and negative attitudes toward mathematics. While existing research has explored these factors independently, few studies have examined their interconnections in a comprehensive manner. Understanding these relationships is essential for designing interventions that address the root causes of underperformance rather than merely treating the symptoms.

The relevant theoretical perspective applicable to this study is theory of self-regulated learning (SRL) which refers to the processes through which learners actively control and manage their own

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learning experiences. It involves students taking responsibility for setting goals, selecting strategies, monitoring their progress, and reflecting on their outcomes (Butler & Cartier, 2018). The concept of SRL is grounded in cognitive, motivational, and metacognitive processes that enable students to become more effective, independent learners. It is linked to students becoming adaptive, lifelong learners who are critical and creative thinkers, problem solvers, and able to work and learn both independently and collaboratively. SRL is important in this study because it reveals the independency in study skills, examination preparedness and attitude of primary school pupils towards mathematics. Instead of relying solely on teachers for guidance, pupils learn to set their own goals, monitor their progress, and adjust strategies to improve their learning outcomes. This makes pupils more autonomous and capable of learning throughout their lives, even outside formal education settings. Also, the theory is relevant because it empowers pupils to take control of their learning, enhancing motivation, academic performance, and lifelong learning skills. By incorporating SRL into teaching of mathematics, curricula, and policy decisions, teachers and policymakers can better prepare pupils for both academic success and future challenges.

Statement of the Problem

Mathematics is a foundational subject that plays a crucial role in the intellectual development of pupils and their preparation for future academic and professional pursuits. However, despite its importance, many pupils in Oyo State continue to face significant challenges in achieving proficiency in mathematics. These challenges are compounded by deficiencies in study skills, inadequate examination preparedness, and negative attitudes toward the subject. Such issues not only undermine individual performance but also have broader implications for the state's educational outcomes and its capacity to develop a workforce competent in mathematics-related fields. In recent years, reports from education authorities and standardized test results in Oyo State have highlighted concerning trends in mathematics achievement among primary and secondary school pupils. For instance, a significant proportion of pupils consistently score below average in mathematics examinations, reflecting persistent gaps in conceptual understanding and problem-solving skills (UBEC, 2020). These performance deficits are often attributed to poor study habits, such as inconsistent revision schedules, reliance on rote memorization, and a lack of effective time management during exam preparation.

Additionally, examination preparedness among pupils in Oyo State remains a pressing issue. Many pupils approach mathematics exams with anxiety and uncertainty, lacking the confidence and strategies required to tackle challenging problems. Research has shown that examination anxiety, when coupled with insufficient preparation, exacerbates the likelihood of failure and fosters negative associations with mathematics (Ashcraft & Moore, 2019). The absence of targeted interventions to address these issues leaves many pupils ill-equipped to perform well in mathematics assessments. Attitudes towards mathematics among pupils in Oyo State further contribute to the problem. Mathematics is often perceived as a difficult and abstract subject, which discourages active engagement and fosters avoidance behaviors. Negative attitudes towards mathematics are frequently influenced by early experiences of failure, limited support from

teachers and parents, and societal stereotypes that portray mathematics as a subject reserved for a select few (Boaler, 2016). These attitudes not only hinder current performance but also diminish pupils' interest in pursuing mathematics-related fields in the future.

The intersection of poor study skills, inadequate examination preparedness, and negative attitudes creates a cycle of underachievement in mathematics. Despite these challenges, there remains a gap in the literature on how these factors collectively impact pupils in Oyo State. Furthermore, there is limited research on effective strategies to improve study skills, boost examination readiness, and foster positive attitudes toward mathematics among this population. Addressing these gaps is essential for improving mathematics outcomes and ensuring that pupils in Oyo State are equipped with the skills and confidence needed to succeed in the subject. Thus, this study seeks to examine study skills, examination preparedness, and attitudes toward mathematics among pupils in Oyo State.

Purpose of the Study

The major purpose of this study is to examine study skills, examination preparedness, and attitudes toward mathematics among pupils in Oyo State, Nigeria. Specifically, the study sought to:

i. Examine the level of study skills towards mathematics among primary school pupils in Oyo State.
ii. Determine the level of examination preparedness towards mathematics among primary school pupils in Oyo State.
iii. Find out primary school pupils' attitudes towards mathematics in Oyo State.
iv. Investigate whether there is significant difference in the study skills towards mathematics among primary school pupils in Oyo State based on school ownership.
v. Determine whether there is significant difference in examination preparedness towards mathematics among primary school pupils　　in Oyo State based on school ownership.
vi. Find out whether primary school pupils' attitude towards mathematics differ significantly based on school ownership.

Research Questions

i. What is the level of study skills towards mathematics among primary school pupils in Oyo State?
ii. What is the level of examination preparedness towards mathematics among primary school pupils in Oyo State?
iii. What is the attitudes of pupils towards mathematics in primary schools in Oyo State?

Research Hypotheses

Ho1: There is no significant difference in the study skills towards mathematics among primary school pupils in Oyo State based on school ownership.

Ho2: There is no significant difference in examination preparedness towards mathematics among primary school pupils in Oyo State based on school ownership.

Ho3: There is no significant difference in primary school pupils' attitude towards mathematics in Oyo State based on school ownership.

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Methodology

The study employed descriptive survey research design to assess the level of study skills, examination preparedness and attitudes of pupils towards mathematics. The population of the study comprised of all primary school pupils in Oyo State while the target population was basic five pupils in the public and private schools. Multistage sampling technique was used to select 600 pupils that constitute the sample size for the study. At the first stage, 20 primary schools were randomly selected by ballot across the three senatorial districts in the State, while at the second stage, a sample of ten basic five pupils were selected across the 20 sampled schools using simple random sampling techniques. The instrument for data collection was a self-constructed questionnaire titled "Study Skills, Examination Preparedness, and Attitudes toward Mathematics Questionnaire" (SSEPAMQ). The questionnaire was close ended comprising of Section A, and B. The section A comprises of demographic information of the respondents which are school type and class; while section B comprised 30 items which were segmented into three parts of ten items on each of study skills, examination preparedness, and attitudes towards mathematics. The instrument adopted three-point response format scale which are: VT-Very True of me (3 points), T-True of me (2 points), and NT-Not True of me (1 point). The research instrument was validated by the experts in the field of Child Psychology, University of Ilorin, while reliability was established using Cronbach Alpha reliability method which yielded an index of 0.84. The data collected were analysed using mean and standard deviation for the research questions raised, while t-test was used to test the hypotheses formulated.

Results
Answering the Research Questions

Three research questions raised were answered with the use of mean and standard deviation. The results were presented in the table below:

Research Question 1: What is the level of study skills towards mathematics among primary school pupils in Oyo State?

In order to find out the level of study skills among primary school pupils towards mathematics in Oyo State, mean responses of the pupils to each items on the questionnaire were computed, having three response format of Very True (3 points), True (2 points), and Not True (1 point). In other to get the cut-off mark, the average of the total point was calculated to be 2.0 (That is; 3+2+1 = 6: 6/3 = 2.0). Therefore, any item with mean value greater than 2.0 was tagged True and items with mean value below 2.0 was tagged Not true. The result is presented in table 1:

Table 1: Mean and Standard Deviation showing the level of study skills towards mathematics among primary school pupils

S/N	ITEMS	$\overline{X}$	SD	Remark
1.	I have a specific time to study mathematics every day	1.72	1.06	Not true
2.	I take break or rest when I am studying mathematics	2.02	1.08	True
3.	I practice solving math problems on my own everyday	2.01	1.14	True

4.	Ask my teacher for help whenever I don't understand mathematics topic	2.25	1.17	True
5.	Always read through examples before solving math problems	2.03	1.09	True
6.	When solving math problems, I try to double-check my answers	2.06	1.15	True
7.	I believe I can get better at mathematics if I study more	2.01	1.18	True
8.	I always feel confident when solving math problems	1.03	1.11	Not true
9.	I study mathematics with my friends both at school and at home	2.01	1.14	True
10.	I always use practice workbooks or extra materials for mathematics	2.02	1.12	True
Weighted Mean			1.92	

The evidence from the pupils was seen from the table where the mean value of all the items was greater than 2.0 except item 1 and 8 that are less than 2.0. From their response, it was revealed that; pupils always ask their teacher for help whenever they don't understand mathematics topic which has the highest mean value (mean = 2.25); and pupils do not feel confident when solving math problems which has the lowest mean value (mean = 1.03). In order to decide on the level of study skills towards mathematics among primary school pupils in Oyo State, the total response of each of the pupils (respondents) which was in continuous data were converted to discrete data and were summed up, having a total minimum of 10, maximum of 30 and the range of 20. This was categorized into three categorical forms, which are low, moderate, and high. The three categories of low, moderate, and high were determined by dividing the range into three (20÷3 = 7). Hence, the interval scores between each category are 7. Therefore, the scores were arranged in the following categories to determine low, moderate, and high level of study skills among primary school pupils: 10 – 16 is Low; 17 – 23 is Moderate; and 24 – 30 is High. The result is presented in table 2;

Table 2: Summary on the level of study skills among primary school pupils

Level	Range	f	%	Remarks
Low	10 – 16	92	15.3%	
Moderate	17 – 23	321	53.5%	**Moderate**
High	24 – 30	187	31.2%	

The above table revealed that 92 (15.3%) of the total response showed low level of study skills, 321 (53.5%) of the total response showed moderate level of study skills, while 187 (31.2%) of the total response showed high level of study skills. This revealed that majority (53.5%) of the total response from the pupils showed that there is moderate level of mathematics study skills among the pupils. This can therefore be concluded that there is moderate level of study skills towards mathematics among pupils in Oyo State.

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Research Question 2: What is the level of examination preparedness towards mathematics among primary school pupils in Oyo State?

In order to examine the level of examination preparedness towards mathematics among primary school pupils in Oyo State, mean responses of the pupils to each items on the questionnaire were computed, having three response format of Very True (3 points), True (2 points), and Not True (1 point). In other to get the cut-off mark, the average of the total point was calculated to be 2.0 (That is; 3+2+1 = 6: 6/3 = 2.0). Therefore, any item with mean value greater than 2.0 was tagged True and items with mean value below 2.0 was tagged Untrue. The result is presented in table 3:

Table 3: Mean and Standard Deviation showing level of examination preparedness towards mathematics among primary school pupils

S/N	ITEMS	$\overline{X}$	SD	Remark
1.	I spend quality time to prepare for mathematics test	2.04	1.01	True
2.	I always create a study plan before an upcoming math exam	1.92	1.02	Not true
3.	I revise the material I have learned in math class few days before the exam	2.24	1.08	True
4.	I always solve past exam papers or practice questions before my math exams	2.12	1.13	True
5.	I always ask my friends for help to review difficult math topics before the exam	2.08	1.05	True
6.	I feel very anxious and worried when you think about your upcoming math exam	2.17	1.11	True
7.	I feel prepared for all types of math problems that might appear in the exam	1.69	1.10	Not true
8.	My math lesson teachers help me prepare for exams	2.20	1.08	True
9.	My parents always help me prepare for math exams	2.06	1.09	True
10.	After the exam I always review my performance in math to learn from mistakes	1.85	1.01	Not true
Weighted Mean		**2.04**		

The evidence from the teachers was seen from the table where the mean value of all the items were greater than 2.0 except item 2, 7, and 10 which are less than 2.0. From their response, it was gathered that; pupils do not create a study plan before an upcoming math exam (mean = 1.92); they do not prepare for all types of math problems that might appear in the exam (mean = 1.69), and after the exam they do not always review their performance in math to learn from mistakes (mean = 1.85). To decide on the level of examination preparedness towards mathematics among primary school pupils in Oyo State, the total response of each of the pupils (respondents) which was in continuous data were converted to discrete data and were summed up, having a total

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minimum of 10, maximum of 30 and the range of 20. This was categorized into three categorical form, which are low, moderate, and high. The three categories of low, moderate, and high were determined by dividing the range into three (20÷3 = 7). Hence, the interval scores between each category is 7. Therefore, the scores were arranged in the following categories to determine low, moderate, and high level of examination preparedness among primary school pupils: 10 – 16 is Low; 17 – 23 is Moderate; and 24 – 30 is High. The result is presented in the table 4;

Table 4: Summary on the level of examination preparedness among primary school pupils

Level	Range	f	%	Remarks
Low	10 – 16	96	16.0%	
Moderate	17 – 23	355	59.2%	**Moderate**
High	24 – 30	149	24.8%	

The above table revealed that 96 (16.0%) of the total response showed low level of examination preparedness, 355 (59.2%) of the total response showed moderate level of examination preparedness, while 149 (24.8%) of the total response showed high level of examination preparedness. This revealed that majority (59.2%) of the total response from the pupils showed that there is moderate level of examination preparedness towards mathematics among the pupils. This can therefore be concluded that there is moderate level of examination preparedness towards mathematics among pupils in Oyo State.

Research Question 3: What are the attitudes of pupils towards mathematics in primary schools in Oyo State?

In order to find out the pupils' attitudes towards mathematics in primary schools in Oyo State, mean responses of the pupils to each items on the questionnaire were computed and in order to get the bench mark, the average of the total point was calculated to be 2.0 (That is; 3+2+1 = 6: 6/3 = 2.0). Therefore, any item with mean value greater than 2.0 was tagged True and items with mean value below 2.0 was tagged Not true. The result of the analysis is presented in table 5:

Table 5: Mean and Standard Deviation showing the pupils' attitudes towards mathematics in primary schools

S/N	ITEMS	$\overline{X}$	SD	Remark
1.	I find mathematics very interesting	2.28	1.13	True
2.	I enjoy solving mathematics problem	2.11	1.11	True
3.	I feel frustrated when I encounter a difficult math problem	2.08	1.17	True
4.	I enjoy learning mathematics	2.27	1.14	True
5.	Learning mathematics is a useful tool for my future	2.21	1.11	True
6.	Knowledge in mathematics helps in solving real-life problems	2.23	1.06	True
7.	When I get a wrong answer in math, I feel disappointed but try again	2.25	1.09	True
8.	I feel very proud when I solve a math problem correctly	2.27	1.14	True

9.	I feel nervous before a math test or quiz	2.12	1.27	True
10.	I often feel stressed during math lessons and while doing homework	1.76	1.20	Not true
	Weighted Mean	**2.15**		

It is evident from the table 5 that the mean value of all the items were greater than 2.0 except item 10 which is less than 2.0. This revealed that most pupils find mathematics very interesting; and pupils do not feel stressed during math lessons and while doing homework. To decide on the pupils' attitude towards mathematics in primary schools in Oyo State, the total points of each respondent which was in continuous data were converted to discrete data. Hence the total minimum is 10points and maximum is 30points while the range is 20. This was categorized into two, which are negative and positive. The two categories of negative and positive were determined by dividing the range into two (20÷2 = 10). Therefore, the points were arranged in the category of negative attitude 10 – 20 points and positive attitude 21 – 30points. The result of the analysis is presented in table 6.

Table 6: Summary on the pupils' attitudes towards mathematics in primary schools

Level	Ranges	F	%	Remarks
Negative	10 – 20	203	33.8%	
Positive	21 – 30	397	66.2%	**Positive**

The above table revealed that 203 (33.8%) of the total response showed negative attitudes towards mathematics, while 397 (66.2%) of the total response showed positive attitudes towards mathematics. This revealed that majority (66.2%) of the total response from the pupils showed that their attitudes towards mathematics is positive. This can therefore be concluded that primary school pupils showed positive attitudes towards mathematics in Oyo State.

Testing the Hypotheses

Ho1: There is no significant difference in the study skills towards mathematics among primary school pupils in Oyo State based on school ownership.

Table 7: Summary of t-test analysis showing the significant difference in the study skills among primary school pupils based on school ownership

School Ownership	N	X	SD	df	t-value	Sig.	Remark
Public	311	22.42	4.75	598	0.37	0.04	*Significant
Private	289	23.68	4.95				

From table 7 above, result shows t value = 0.37, degree of freedom (598). The null hypothesis is rejected since the significant value of 0.04 is less than 0.05 of Alpha level. This means that, study skills among private school pupils is different from their counterparts from public schools. Therefore, the null hypothesis above which stated that there is no significant difference in the study skills towards mathematics among primary school pupils in Oyo State based on school ownership

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is not retained. Hence, it reveals that there is significant difference in the study skills towards mathematics among primary school pupils in Oyo State based on school ownership.

Ho2:   There is no significant difference in examination preparedness towards mathematics among primary school pupils in Oyo State based on school ownership.

Table 8: Summary of t-test analysis showing the significant difference in examination preparedness among primary school pupils based on school ownership

School Ownership	N	X	SD	df	t-value	Sig.	Remark
Public	311	24.13	4.26	598	1.41	0.02	*Significant
Private	289	26.98	3.95				

From table 8 above, result shows that t-value of 1.41 (df = 598) is significant at 0.05 alpha level (0.02 < 0.05). This means that, examination preparedness towards mathematics among private school pupils is different from their counterparts from public schools. Therefore, the null hypothesis above which stated that there is no significant difference in examination preparedness towards mathematics among primary school pupils in Oyo State based on school ownership is not retained. Hence, there is significant difference in examination preparedness towards mathematics among primary school pupils in Oyo State based on school ownership.

Ho3:   There is no significant difference in primary school pupils' attitude towards mathematics in Oyo State based on school ownership.

Table 9: Summary of t-test analysis showing the significant difference in primary school pupils' attitude towards mathematics based on school ownership

School Ownership	N	X	SD	df	t-value	Sig.	Remark
Public	311	23.59	4.39	598	2.41	0.01	*Significant
Private	289	27.75	3.27				

From table 9 above, result shows that t-value of 2.41 (df = 598) is significant at 0.05 alpha level (0.01 < 0.05). This reveals that pupils' attitudes towards mathematics among private school pupils is different from their counterparts from public schools. Therefore, the null hypothesis which states that there is no significant difference in primary school pupils' attitude towards mathematics in Oyo State based on school ownership is not retained. Hence, there is a significant difference in primary school pupils' attitude towards mathematics in Oyo State based on school ownership.

Discussion of the Findings

It was revealed from the findings that there was moderate level of study skills towards mathematics among pupils in Oyo State. This shows that despite the importance of mathematics as a core subject, some pupils experience difficulty in mathematics due to poor study skills, anxiety, or a lack of confidence. This was borne out of the fact that mathematics anxiety, a fear or apprehension toward mathematics, negatively affects study habits and performance. Pupils with mathematics poor study skills may procrastinate, rush through problems, or struggle to focus during study sessions. This goes in line with the submission of Rosenbaum (2021) who asserted that effective study skills, such as time management, note-taking, and active learning methods,

significantly influence academic success. In mathematics, study skills are particularly crucial due to the subject's cumulative nature, requiring a strong grasp of foundational concepts to build upon. However, many pupils struggle with developing efficient study skills, leading to gaps in understanding and performance.

More so, this study revealed that there was moderate level of examination preparedness towards mathematics among pupils in Oyo State. This might result from the fact that the pupils are battling with mathematics study skills which tell negatively on their preparation for mathematics examination. This was supported by the submission of Cassady and Johnson (2012) who opined that examination preparedness encompasses not only mastery of the subject matter but also the psychological readiness to tackle assessments. Pupils who are well-prepared tend to approach exams with confidence, while those who are underprepared often experience test anxiety, which adversely affects performance. They further posited that preparing effectively for mathematics exams requires a blend of consistent practice, problem-solving, and understanding of exam patterns. Nonetheless, disparities in preparedness levels among pupils point to underlying issues such as unequal access to resources, variations in teacher support, and differing levels of self-discipline.

Furthermore, it was revealed from this study that there were positive attitudes of pupils towards mathematics in Oyo State. It was revealed that despite all odds against study skills and examination preparedness towards mathematics, pupils still showed positive attitudes to the subject. This can be resulted from the fact that pupils' attitudes are shaped by a combination of cognitive, emotional, social, and instructional factors. Positive influences, such as supportive instructional materials, parental encouragement, and engaging active learning experiences, can foster enthusiasm and confidence of pupils. This corroborates the submission of Hannula (2012) who submitted that attitudes towards mathematics are a critical factor in determining pupils' engagement and success in the subject. Pupils with a positive attitude towards mathematics are more likely to persevere through challenges, enjoy learning the subject, and achieve higher academic results.

In addition, it was gathered from the study that there was significant difference between public and private school pupils in their study skills towards mathematics in Oyo State. The possible reason may be due to variations in institutional resources, teaching activities, students active engagement in private schools than public schools. This supports the assertion of Simms (2016), who reported that private schools often have greater access to educational resources, including advanced textbooks, technology, and specialized programs that support mathematical learning. These resources enable private school pupils to develop stronger study skills, such as the ability to engage with online practice tools or attend after-school tutoring sessions. In contrast, public schools, may lack sufficient resources, limiting opportunities for pupils to engage in independent or guided mathematical study. They further posited that smaller class sizes in private schools often allow for more individualized instructions, enabling teachers to guide pupils in developing effective study skills, such as problem-solving strategies and time management.

Moreover, the result from the findings showed that there was significant difference between examination preparedness of public and private primary schools in Oyo State. This was as a result of the fact that private schools often provide a wealth of learning resources, such as digital tools, and structured revision guides, which enhance pupils' ability to prepare for examinations. This was supported by the assertion of Banerjee et al. (2017) who reported that examination preparedness in mathematics varies significantly between private and public primary school pupils due to disparities in resources and school culture. Private schools often provide environments and support systems that enable pupils to engage in structured and consistent exam preparation. Public schools, while striving to achieve similar outcomes, face systemic challenges that can hinder their pupils' readiness for examinations. They further stated that private school pupils are more likely to benefit from access to private tutoring services, which offer personalized exam preparation. These sessions address individual weaknesses and provide intensive practice, enhancing readiness for examinations while public school pupils may have limited access to such services, relying primarily on classroom instruction, which might not meet all their preparatory needs.

In addition, the findings of the study showed that there was significant difference between public and private primary school pupils' attitude towards mathematics in Oyo State. This may be as a result of wealth of learning resources that are available in private schools. This finding was supported by Boaler (2016), who found out that teachers in private schools are often equipped with advanced training and access to professional development opportunities, enabling them to use innovative and active teaching strategies. This can make mathematics more appealing to pupils, fostering a sense of accomplishment, interest and positive attitude. He further asserted that private schools frequently integrate real-world applications of mathematics into their curriculum, showing pupils the relevance of the subject to everyday life and future careers. This approach can enhance pupils' attitudes by making the subject more meaningful.

The differences among pupils in public and private primary schools in study skills, examination preparedness and attitude towards mathematics can create an academic gap, potentially influencing secondary school admissions and career trajectories. Pupils in private schools may have a stronger academic foundation, potentially giving them an advantage in higher education and future careers. They may develop a more well-rounded skill set, while public school pupils may miss out on opportunities for creative and social growth. Also, these differences can perpetuate cycles of privilege and disadvantage, hinder upward mobility for pupils, and requires investments in public education, teacher training, and community support.

Conclusion

It was concluded from the findings that there was moderate level of study skills and examination preparedness towards mathematics among the primary school pupils, while pupils showed positive attitudes towards mathematics in Oyo State. Also, there was significant difference between public and private primary school pupils in study skills, examination preparedness, and attitudes towards mathematics in Oyo State.

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Recommendations

Based on the findings from the study, the following recommendations are proffered;

i. Teachers should ensure pupils are encouraged to engage in self-directed learning to build independence and active learning strategies such as summarizing, questioning, and self-explaining so as to promote their study skills.

ii. To bridge the gap of disparities in the study skill, examination preparedness and attitude, the school management should invest more in teacher training programmes, technology, and after-school programs to ensure that pupils are provided with regular practice and problem-solving activities to reduce anxiety and increase familiarity with test formats and examination preparedness.

iii. There should be collaborative programs and resource sharing among public and private school teachers to create equal opportunities for all pupils.

iv. Teachers should organize math-focused events such as fairs, competitions, or STEM workshops to make learning enjoyable and inspiring, as this will promote pupils' positive attitude towards mathematics.

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