

**TEACHER PERCEPTIONS OF HOMEWORK AS AN
ASSESSMENT TOOL IN PRIMARY SCIENCE EDUCATION:
INSIGHTS FROM DELTA STATE, NIGERIA WITH
COUNSELLING IMPLICATIONS**

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ABSTRACT: A popular teaching method, homework is frequently used to evaluate students' comprehension and reinforce their learning. However, there is controversy regarding the validity of homework as an assessment tool in elementary scientific education, particularly with regard to how well it gauges individual accomplishment and practical abilities. Primary school instructors in Delta State, Nigeria, regularly assign homework, but little research has been done on how they see its importance and difficulties. The purpose of this study was to find out how primary school teachers felt about homework as a scientific evaluation tool. The study aimed to understand teachers' opinions on its efficacy, implementation difficulties, suitability for evaluating practical activities, and its wider function in reinforcing learning. Data was gathered from 188 primary school teachers in Delta State using a descriptive survey design. Participants filled out a standardized questionnaire to gauge their opinions on the usefulness, constraints, and overall goal of homework. Data analysis was done using descriptive statistics. to the findings, teachers usually believe that homework helps students learn science, but many have reservations about using it for official evaluation. Among the difficulties noted include reliance on outside help, academic dishonesty (copying), and workload limitations that compromise the thoroughness of grading. The majority of educators believe that homework is inappropriate for evaluating practical science assignments that call for active participation. Rather than being a significant assessment tool, they see homework as an additional, formative tool. The results underscore the need to encourage students' self-directed learning, moral study habits, and stress management, which has ramifications for counselling psychologists employed in educational environments. The study also highlights how crucial it is to advise parents on how best to assist with homework and promote productive study habits.

Keywords: Homework, Assessment, Primary Science Counselling Teacher Perceptions, Formative Assessment

INTRODUCTION

For many years, homework has been a crucial part of education, fulfilling a variety of functions, from enhancing classroom instruction to giving teachers information on students' understanding and development (Medwell, 2018). Homework in elementary school, particularly in the context of science instruction, provides a chance to expand learning outside of the classroom and motivates students to investigate scientific ideas on their own or with guidance (Masalimova et al., 2023). Nonetheless, there is ongoing discussion among scholars and educators on the validity and dependability of homework as an assessment method. While

some contend that homework helps students retain information and study on their own, others raise questions about whether it truly reflects students' skills and comprehension (Costa et al., 2016; Fernández-Alonso, 2014).

Homework is frequently used in elementary schools in Nigeria, particularly in Delta State, as a formative assessment technique for scientific instruction (Matilda, 2019). In this context, homework assignments frequently seek to support students in integrating what they have learnt in class, practicing scientific thinking, and cultivating the study habits necessary for lifetime learning (Mirian, 2023). However, in primary school, where children have little independence and a variety of outside variables may affect homework completion, the difficulties of utilizing homework as an assessment tool are especially noticeable. For example, elementary school pupils frequently turn to family members for homework assistance, which might obfuscate each student's comprehension of the subject matter. Additionally, the effectiveness of homework as a trustworthy indicator of student learning outcomes is called into doubt by the problem of academic integrity, which includes copying or rote completion without actual participation (Amedu, 2014).

Few studies have looked at teachers' opinions regarding the usefulness and limitations of homework in evaluating science instruction despite the fact that it is a common assessment technique in Nigerian primary schools. Teachers' views are crucial because they shed light on possible discrepancies between the expected and actual results of homework assignments and offer valuable insights into how homework works in educational environments (Okedeyi et al., 2013; Kontagora et al., 2018). Primary school teachers are in a unique position to witness the intricacies of homework assignments in young students. Therefore, their perspectives are crucial to comprehending the contextual elements that affect homework's function in evaluation (Ambrose, 2023).

The purpose of this study is to investigate how primary school teachers in Delta State, Nigeria, use homework as a means of evaluating scientific instruction. It specifically looks at instructors' opinions on how well homework evaluates student learning, the difficulties they have while utilizing homework for assessment, and whether homework is appropriate for assessing particular science activities. The study also aims to comprehend how teachers perceive homework's function in scientific classes, differentiating between its use as an assessment tool and its functions in promoting learning. The study adds to the current discussion on efficient assessment procedures in primary schools by examining these perceptions and providing information that could influence classroom procedures and policy suggestions in Nigeria and other comparable educational settings.

The results of this study have the potential to fill a significant vacuum in the body of knowledge regarding formative assessment in primary scientific education. Understanding the contextual constraints and advantages of homework can help educators and politicians improve assessment procedures that promote student learning while precisely assessing accomplishment, especially as competency-based assessment becomes more and more important in educational systems.

Research Questions

The research questions guiding this study on teacher perceptions of homework as an assessment tool for primary school learning in Delta State, Nigeria, are as follows:

1. How do primary school teachers perceive the effectiveness of homework as a tool for assessing science learning among students?
2. What challenges do teachers face in using homework as an assessment measure in science education?
3. To what extent do teachers believe that homework is suitable for assessing specific science tasks, particularly those requiring hands-on engagement?
4. What are the perceived impacts of external assistance (e.g., help from parents or siblings) and copying on the reliability of homework as an assessment tool?
5. How do teachers view the broader purpose of homework in science education, especially in terms of its role in promoting learning versus assessment?

LITERATURE REVIEW

With its many functions throughout many educational levels, homework has been a crucial but controversial component of educational systems around the world. Homework is frequently used in primary school as a formative evaluation method to assist pupils in building strong study habits and consolidating what they have learnt in class. However, there is continuous discussion among educators, academics, and policymakers regarding the efficacy and dependability of homework as an assessment tool (Núñez Pérez et al., 2013).

The Role of Homework in Science Education

In science education, homework can be used for a variety of reasons, such as strengthening subject matter or developing students' capacity for independent study and critical thought. In elementary school, the main goal of homework is to supplement classroom instruction by giving pupils chances to practice and apply ideas. In particular, homework assignments in science classes can motivate students to investigate scientific concepts on their own, strengthening their comprehension (Fernández-Alonso, 2014).

According to research, homework can also encourage good academic habits by teaching kids time management techniques and a sense of accountability. However, the effectiveness of homework in reaching these goals is still debatable, especially when it comes to its use as a test. Research indicates that although homework might serve to enhance learning, it may not always accurately represent a student's true comprehension or aptitude. The possibility of outside help is a significant concern, especially in elementary school contexts when pupils could turn to family members for support (Maltese et al., 2012). Its validity as a gauge of individual learning may be called into question if this outside assistance leads to homework that represents the joint efforts of the student and their aide rather than the student's independent labour.

Teacher Perceptions of Homework as an Assessment Tool

Understanding the perceived benefits and drawbacks of homework in elementary school depends heavily on the opinions of teachers. Teachers offer insights into the real-world difficulties involved in assigning, evaluating, and grading homework because they are the ones who carry out homework the most. According to a study, teachers pointed out that homework can be helpful in identifying trends in students' comprehension, but they also advised against using it as a primary assessment tool. Academic integrity concerns, such as pupils plagiarising work from classmates or outside sources, were of particular concern to teachers since they

could mask a student's actual understanding of scientific ideas (Syla, 2023; Rosário et al., 2019).

These findings are consistent with research conducted in Nigerian educational contexts. While primary school teachers in southwest Nigeria respect homework as a way to reinforce teachings, many are hesitant to use it as a summative assessment tool, according to a study that looked at their perspectives (Alordiah & Okoro, 2018; Rosário et al., 2018). This hesitancy stems from worries about outside impacts on students' assignments as well as time restrictions that frequently prohibit in-depth evaluation and comments. The findings of this research highlight the real-world challenges that come up when homework is used as a form of assessment, especially in situations where students' access to resources and assistance varies greatly.

Suitability of Homework for Assessing Practical Science Skills

Assessing scientific learning frequently entails more than just rote memorization; it also entails determining how well students comprehend concepts and apply them in practical situations. According to research, homework may not be able to evaluate these abilities adequately. For example, research suggests that homework is frequently unsuitable for assessing laboratory or experiment-based tasks since there is a need for fast feedback and observation, which are not usually present in take-home assignments. In primary scientific education, where fundamental practical skills are being developed, this is particularly relevant (Konyeme & Alordiah, 2024; Masalimova et al., 2023; NEGRU, 2022).

Additionally, teachers in Nigeria may rely more on theoretical homework assignments that fail to capture the interactive character of science learning because primary education may lack the resources needed for practical science labs (Catalano, 2018). Because practical application and inquiry-based learning are reduced, using homework to evaluate science competencies may lead to an inaccurate assessment of students' skills.

The Impact of External Assistance and Academic Integrity Concerns

In homework-based assessments, outside help is a significant concern, especially for elementary school pupils who could rely on parental or sibling support. While parental involvement in homework can help reinforce learning, it also makes it more difficult for homework to serve as a tool for individual assessment (NEGRU, 2022).

This idea is supported by research, which indicates that although family help can improve student performance, it frequently leads to homework that showcases group efforts rather than the student's autonomous abilities. In primary scientific education, where understanding fundamental concepts is fundamental, and students may find it difficult to complete activities requiring sophisticated thinking abilities, this issue is particularly pertinent (Fernández-Alonso, 2014; Gonida, 2014).

Additionally, the dependability of assignments is hampered by issues with academic integrity, such as plagiarism or improper use of outside resources. Research has shown that students may turn to cooperative methods that compromise the individual nature of evaluation, especially in societies that value group dynamics (Williams, 2019). These cultural factors might make the use of homework for evaluation even more challenging in Nigeria, where family and

community assistance are highly valued since pupils may value teamwork over individual effort.

Theoretical Framework

Constructivist learning theory and formative assessment theory inform this investigation. Based on the research of Piaget (1954) and Vygotsky (1978), constructivist learning theory holds that learning is an active, positive process in which students gain information via practical experiences and social interactions (Yan, 2014). According to constructivist theory, learning happens best in primary science education when children interact with scientific ideas through experimentation and exploration as opposed to passive tasks like rote assignment completion. This idea draws attention to the drawbacks of homework as a science evaluation tool. In the absence of practical experience, students can find it challenging to gain a thorough comprehension of scientific concepts, making homework a less reliable indicator of conceptual competence. According to Black and Wiliam's (1998) Formative Assessment Theory, continuous, low-stakes tests that offer feedback are crucial for directing students' development (Braund, 2018; Alordiah & Okoro, 2018).

Through regular, informal reviews, formative assessment seeks to enhance learning by assisting teachers in identifying areas for growth and modifying their lesson plans accordingly. According to this paradigm, homework could be a formative tool that allows teachers to provide focused feedback and gain insight into their students' comprehension. Formative Assessment Theory, however, also emphasizes the significance of validity and reliability in assessments, which homework may not have because of problems like academic dishonesty and outside help. Because of these drawbacks, homework should not be used as a major assessment method, even though it has formative potential.

The literature presents a nuanced perspective on the use of homework in elementary scientific instruction. Although they are aware of the importance of homework in enhancing classroom instruction and encouraging student participation, teachers are wary of its limitations as a tool for assessment. While Formative evaluation Theory contends that homework may be more effective as an additional formative measure than a summative evaluation, Constructivist Learning Theory emphasizes the importance of hands-on participation in science, which homework alone cannot offer. By investigating primary school teachers' opinions about the value, difficulties, and goals of homework in scientific assessment in Delta State, Nigeria, this study adds to the conversation. The project aims to provide more culturally relevant and balanced approaches to evaluation in elementary science education by using these insights.

METHOD

In order to gather information about teachers' opinions, attitudes, and beliefs about homework as an evaluation tool, this study used a descriptive survey approach. The survey's methodology made it possible to gather information from a sample of Delta State primary school teachers in a systematic manner, offering valuable perspectives on the function, efficacy, and constraints of homework in evaluating scientific learning. The study was able to collect data from a broader population by employing a quantitative survey approach, which ensured that the findings could be applied to comparable educational situations.

Primary school teachers from coeducational and single-sex schools in Delta State's three senatorial districts—Delta North, Delta Central, and Delta South—participated in this study.

To guarantee varied representation across school types, geographic locations, and genders, teachers were chosen using a stratified random sample technique. Because of this variability, the study was able to gather a wide range of opinions from teachers regarding the use of homework in primary scientific evaluation. A total of 188 educators took part in the poll. The majority of participants (70.7%) attend coeducational institutions, with single-sex schools accounting for the remaining 29.3%. In terms of geographic distribution, Delta North accounts for 38.8% of participation, Delta Central for 31.9%, and Delta South for 29.3%. According to the gender breakdown, there were 62.8% more female participants than male participants (37.2%) (Figure 1).

A systematic questionnaire created especially for this study was used to gather data. There were five sections on the questionnaire. Demographic Information: This component collected participant background information, such as gender, senatorial district, and kind of school. Perceived Effectiveness of Homework in Science Assessment: This section's items evaluated teachers' opinions of how well homework reinforces science knowledge and affects students' grades. Limitations and Difficulties of Homework as Assessment: This section addressed the difficulties teachers encounter while utilizing homework as a valid assessment tool, such as workload limitations, external help, and copying. Suitability of Homework for Particular Science Tasks: Teachers' opinions regarding the suitability of homework for evaluating practical or hands-on science skills were the focus of this section's questions. Purpose of Homework in Science Education: This section looked at the more general goals of homework as perceived by educators, including whether it serves mainly as practice, reinforcement of learning, or official evaluation. The responses ranged from "Strongly Disagree" (1) to "Strongly Agree" (5) on a 5-point Likert scale. A Cronbach's alpha of 0.82, which indicates strong reliability, was obtained after the scale was tested for internal consistency and content accuracy.

After receiving the required approvals from the head teachers of the chosen Delta State schools, data gathering got underway. The selected teachers were given the questionnaire, either in print or electronic format. In addition to instructions on how to fill out the questionnaire, teachers were given enough time to consider their answers carefully. In the event that there were any problems with the electronic format, the researchers made sure that everyone involved had access to technical assistance. After two months of data gathering, completed questionnaires were gathered, checked for completeness, and then added to a database for analysis.

To protect each participant's rights, privacy, and safety, this study complied with ethical guidelines. Each participant gave their informed consent prior to data collection, outlining the goals, methods, possible hazards, and advantages of the study. Teachers were given the assurance that their answers would be kept private and anonymous and that no personally identifiable information would be retained. Participants were allowed to leave at any time without facing any repercussions because participation was entirely voluntary. The information was safely kept and used only for study.

Version 26 of the Statistical Package for the Social Sciences (SPSS) program was used to analyse the data. The demographics of teachers and their opinions on the function, efficacy, and constraints of homework in science evaluation were compiled using descriptive statistics, such as frequencies and percentages. The demographic data of the participants was graphically shown using a tree map. By using this methodological approach, the study sought to give a thorough overview of how primary school teachers felt about homework's role in evaluating

science learning, with an emphasis on identifying problems, evaluating its efficacy, and looking at its functions in the larger educational context.

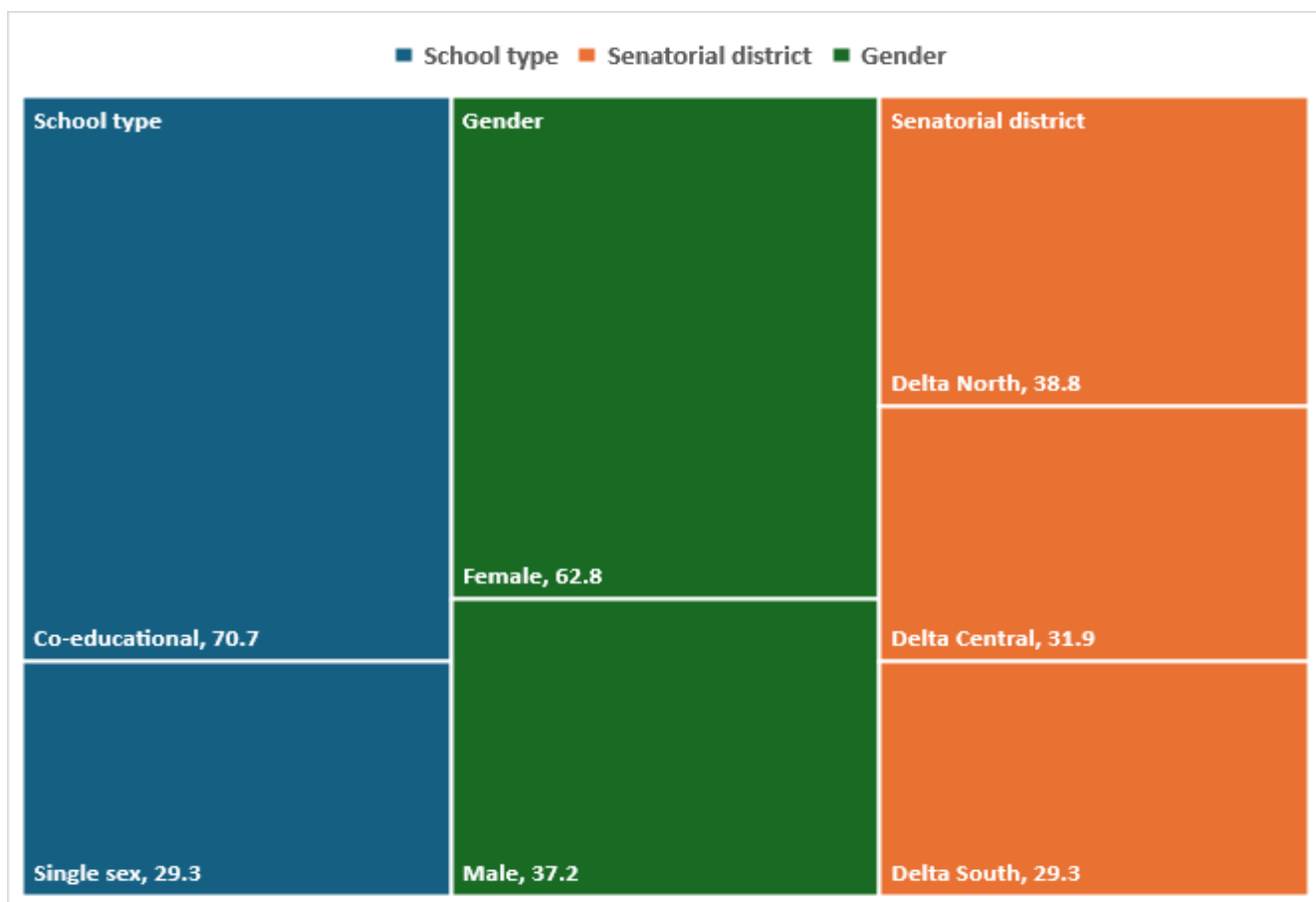


Figure 1: Treemap of Participant information in %

DATA ANALYSIS

Table 1: Effectiveness of Homework in Science Assessment

Effectiveness of Homework in Science Assessment	Rating	n	%
Homework is adequate for assessing science learning.	SD	7	3.7
	D	54	28.7
	N	6	3.2
	A	23	12.2
	SA	98	52.1
Homework scores contribute to students' science grades.	SD	10	5.3
	D	70	37.2
	N	12	6.4
	A	36	19.1
	SA	60	31.9
Completing homework is crucial for understanding science.	SD	7	3.7
	D	63	33.5
	N	12	6.4
	A	29	15.4
	SA	77	41.0

Table 1 shows a range of teacher opinions regarding how well homework measures students' comprehension of science. The significance of homework in enhancing science education is typically viewed favourably by teachers. 12.2% of respondents agree, and a sizable majority (52.1%) strongly believe that homework is a valuable tool for evaluating science learning. The majority of teachers believe that homework is a valuable tool for assessing students' understanding of scientific subjects, as evidenced by the combined 64.3%. Just a tiny percentage of instructors disagree (28.7%) or strongly disagree (3.7%) with this statement, indicating that most of them think homework assignments have a significant impact on students' learning.

There is also some disagreement about whether or not homework grades should be used to determine students' final science grades. A significant number of teachers have reservations: 37.2% disagree, and 5.3% strongly disagree, which together account for roughly 42.5% of the responses, despite the fact that 19.1% agree and 31.9% strongly agree that homework scores should be taken into account when assigning scientific grades. This division suggests that although teachers recognize the value of homework, they are wary of using it excessively as a primary grading tool, maybe because they have doubts about its accuracy as a gauge of student progress.

Finally, teachers were questioned about whether or not students' comprehension of science depends on them finishing their homework. With 15.4% agreeing and 41.0% strongly agreeing, the responses demonstrate substantial support for this assertion. This indicates that more than half of the teachers (56.4%) think homework is essential for strengthening students' conceptual comprehension, helping them retain material, and reinforcing classroom instruction. A sizable minority (33.5%) disagrees, though, suggesting that some educators do not think homework is as essential to the learning process. These conflicting opinions illustrate the complexity of homework's place in science education, pointing out its alleged advantages for comprehension and engagement but also raising questions about its drawbacks.

Table 2: Challenges and limitations of homework as an assessment

Challenges and Limitations of Homework as Assessment	Rating	n	%
Students who struggle with homework tend to have low science grades.	SD	17	9.0
	D	63	33.5
	N	9	4.8
	A	49	26.1
	SA	50	26.6
Homework-based assessments can mislead teachers.	SD	36	19.1
	D	43	22.9
	N	22	11.7
	A	60	31.9
	SA	27	14.4
Homework scores don't always reflect true student knowledge.	SD	25	13.3
	D	60	31.9
	N	23	12.2
	A	43	22.9
	SA	37	19.7
Teachers often skip thorough homework checks due to workload.	SD	52	27.7
	D	34	18.1

	N	12	6.4
	A	78	41.5
	SA	12	6.4
Homework scores may not show actual student ability.	SD	21	11.2
	D	49	26.1
	N	21	11.2
	A	49	26.1
	SA	48	25.5

Table 2 explores the perceived difficulties and restrictions teachers have with using homework as a technique for evaluation. One significant problem found is that students who have trouble with their homework typically have worse scientific marks, which a lack of knowledge or assistance at home may cause. Slightly more than half (52.7%) of respondents believe that homework difficulties are associated with worse academic results in science, with about 26.6% of instructors strongly agreeing and 26.1% agreeing with this view. However, a sizable minority (33.5%) disagrees, indicating that some educators may blame subpar homework performance on variables unrelated to students' academic aptitude.

The worry that homework-based tests may occasionally mislead teachers about students' proper scientific comprehension is another drawback that has been brought to light. 14.4% of instructors strongly agree, and about 31.9% of teachers believe that homework may not fairly represent students' knowledge because of things like inconsistent effort or outside help. Taken together, this indicates a noteworthy 46.3% concern rate among educators. Notably, 19.1% of teachers strongly disagree with this statement, and 22.9% disagree, suggesting that some educators have some faith in homework's capacity to gauge students' development accurately.

Additionally, answers show that 19.7% strongly agree and 31.9% agree that homework grades do not always reflect a student's actual understanding, raising concerns about trustworthiness. There is disagreement on the validity of homework as a gauge of student achievement, with around 31.9% disagreeing and 13.3% strongly disagreeing. Furthermore, a sizable portion of instructors (41.5%) concur—with 6.4% strongly agreeing—that their workload makes it impossible to grade homework assignments thoroughly. Because teachers might not have the time to analyse assignments thoroughly, this high combined number (47.9%) indicates a significant obstacle to adopting homework as a valid assessment technique.

Lastly, 25.5% of teachers strongly agree, and 26.1% agree that homework scores might not be a true reflection of students' true abilities. More than half (51.6%) of respondents share this opinion, expressing doubts about homework's reliability as an accurate indicator of learning. These findings show that teachers are generally concerned about the limitations of homework as a stand-alone evaluation tool. Workload restrictions, the possibility of student competence being misrepresented, and outside influences on homework submissions are some of the significant issues.

Table 3: Suitability of homework for specific science tasks

Suitability of Homework for Specific Science Tasks	Rating	n	%
Homework is unsuitable for assessing lab activities.	SD	10	5.3
	D	63	33.5
	N	9	4.8

	A	49	26.1
	SA	57	30.3
Students often copy homework, scoring high without understanding.	SD	7	3.7
	D	65	34.6
	N	7	3.7
	A	27	14.4
	SA	82	43.6
Parents or siblings often help pupils with homework.	SD	14	7.4
	D	60	31.9
	N	10	5.3
	A	28	14.9
	SA	76	40.4
Homework scores are rarely included in formal assessments.	SD	29	15.4
	D	53	28.2
	N	12	6.4
	A	65	34.6
	SA	29	15.4

Table 43 emphasizes issues with the integrity of homework assignments. It looks at teachers' opinions on whether homework is appropriate for assessing various science activities, especially those that call for hands-on participation.

Whether homework is suitable for evaluating laboratory-based activities is the subject of the first item. With 30.3% of teachers strongly agreeing and 26.1% agreeing that homework is inappropriate for such assignments, the replies show a great deal of suspicion. Given that 56.4% of respondents shared these viewpoints, it appears that there is general agreement that laboratory activities—which are frequently hands-on and necessitate direct observation and experimentation—cannot be adequately evaluated outside of the classroom. Just 33.5% of educators disagree, suggesting that some lab-related assignments might be modified for homework. This reluctance most likely results from worries that students might not wholly participate in the experimental procedures without supervision, producing work that is unreliable or unauthentic.

With 43.6% of teachers strongly agreeing and 14.4% agreeing that children routinely copy schoolwork from peers, obtaining high scores without actual comprehension, the table also reflects a general concern about the problem of copying. This suggests that 58% of educators believe that plagiarism seriously compromises the usefulness of homework as a tool for evaluation. Since homework may not accurately reflect individual effort or understanding—especially when students may readily acquire answers from peers or internet resources—teachers' frustration with the possibility of academic dishonesty is evident in this statement.

Concerns about outside help are also present. According to the responses, a sizable portion of teachers—40.4% strongly agreeing and 14.9% agreeing—think that parents or siblings frequently assist kids with their schoolwork. The perceived impact of outside influences on students' homework is highlighted by this combined 55.3% response rate, which may jeopardize the validity of the assignment as a tool for individual assessment. When family members help with schoolwork, children can get better grades without really understanding the subject, which would cause homework scores and real knowledge to be out of sync.

The table concludes by examining whether homework ratings are routinely incorporated into official evaluations, a procedure that would increase their importance. The results, however, show that this is uncommon, with 15.4% strongly disagreeing and 28.2% disagreeing that homework is a component of formal examinations, indicating that homework may be viewed more as a formative than a summative evaluation. However, 15.4% strongly agree, and 34.6% agree that homework scores are occasionally incorporated into official examinations. Concerns over the regularity and integrity of homework as a valid indicator of student progress may be the cause of the split responses, which show that teachers have differing opinions about whether or not homework should be included in students' official science grades.

Table 4: Purpose of Homework in Science Education

Purpose of Homework in Science Education	Rating	n	%
Some homework is just for practice, not assessment.	SD	13	6.9
	D	58	30.9
	N	17	9.0
	A	54	28.7
	SA	46	24.5
Certain science activities can only be assessed in class.	SD	6	3.2
	D	72	38.3
	N	15	8.0
	A	40	21.3
	SA	55	29.3
Homework scores encourage study but do not reflect achievement.	SD	25	13.3
	D	67	35.6
	N	16	8.5
	A	41	21.8
	SA	39	20.7

Table 4 examines whether homework is primarily used as an assessment tool or as a supportive learning practice, shifting the focus to the larger goal of homework in science education. The answers from teachers highlight a perception of homework as a multifunctional assignment that supports learning but might not always be a clear indicator of success.

The notion that certain homework assignments are provided solely for practice rather than for evaluation is examined in the first item. Responses here reveal a variety of viewpoints, with 28.7% of teachers agreeing and 24.5% strongly agreeing that some homework assignments are meant to provide students with practice rather than to assess their comprehension formally. Teachers' awareness of homework as a means for strengthening classroom learning is demonstrated by the combined 53.2% agreement, which enables students to practice and solidify new material without necessarily receiving a grade. Even while homework may not always be evaluated directly, this perspective represents a teaching approach that views it as helpful for mastery and skill development.

Another topic explores the idea that some science-related tasks, especially those that call for a hands-on component, can only be evaluated well in a classroom setting. A majority of 50.6% of teachers think that homework has restrictions for some experiential learning tasks, with a significant 29.3% strongly agreeing and 21.3% agreeing. This consensus supports the notion

that practical tasks are best supervised to ensure accurate assessment of student's skills and understanding, and it is consistent with replies in Table 4 about lab activities.

Even while assignment results may not always represent true success, the table also shows conflicting opinions regarding whether they motivate kids to study. While homework may encourage students to interact with the content, a sizable percentage of teachers (20.7% strongly agree and 21.8% agree) feel that it does not always reflect actual comprehension or mastery of scientific principles. Although there isn't a direct correlation between homework and academic achievement, this combined 42.5% shows a sophisticated knowledge of its motivational importance. Although it might not be a reliable indicator of academic success, this viewpoint suggests that teachers view homework as a way to help pupils develop routine and responsibility in their study habits.

To sum up, Tables 4 and 5 shed lights on educators' critical viewpoints regarding the constraints and objectives of homework in science classes. Table 4 highlights the difficulties with academic integrity, outside assistance, and homework's inappropriateness for real-world assignments, indicating that homework may not be a very useful instrument for accurate assessment. However, Table 5 sheds light on the broader function of homework, showing that teachers frequently see it as a practice-oriented assignment that promotes learning and engagement rather than as a final indicator of success. All of these observations point to the necessity for a well-rounded approach to homework, one that uses it as a low-stakes test to supplement other, more accurate evaluating techniques in the classroom and as a reinforcement of learning.

DISCUSSION

This study aimed to investigate primary school teachers' opinions of homework as a science assessment tool in Delta State, Nigeria. It specifically sought to ascertain teachers' views regarding the value of homework in enhancing science learning, the difficulties in utilizing it for evaluation, its applicability to practical assignments, and its overall function in promoting learning. By looking at various viewpoints, the study aimed to shed light on the useful advantages and drawbacks of homework as a formative evaluation tool in elementary science instruction.

The study produced a number of significant conclusions about the function of homework in elementary science instruction. First of all, most educators think that homework helps students learn and is an effective way to reinforce science lessons learnt in class. However, there are differing views on whether homework should be included in official tests, with many educators questioning its validity as a summative tool. Teachers noted a number of difficulties with homework, such as problems with outside help from family members, pupils' propensity to imitate, and their workload limitations, which frequently prevent in-depth assessment. Teachers also generally agreed that practical science abilities are best assessed through supervised, in-class activities, and homework is inappropriate for this purpose. Lastly, teachers believed that homework had two purposes: it should not be used as the main gauge of students' scientific proficiency, even though it does reinforce learning.

The results of this investigation are consistent with earlier studies that emphasize the complex function of homework in education (Medwell, 2018; Masalimova et al., 2023). According to the research in this study, homework is a useful technique for fostering independent learning habits and solidifying science concepts. Nevertheless, the study also confirms other academics'

worries about how outside help affects homework's reliability as a test (Costa et al., 2016; Filiz, 2018).

Teachers in Delta State are hesitant to use homework as a summative assessment, according to this study, which is consistent with findings in the Nigerian educational context. This is primarily because of worries about academic integrity and the limited usefulness of homework for assessing practical science assignments (Medwell, 2018; Costa et al., 2016). The study's findings also corroborate the claim that homework is frequently ill-suited to evaluating students' practical scientific skills because in-class observation is crucial for gauging their proficiency with scientific techniques (NEGRU, 2020).

The study's conclusions highlight the difficulties in utilizing homework as a tool for assessment in elementary science instruction. In addition to complementing classroom instruction, homework seems to play an essentially formative role by giving students more chances to practise and solidify their information. However, homework may not fairly represent each student's achievement because of the dependence on outside help and problems like copying, especially in elementary school when pupils are still learning how to learn on their own. The results of the study imply that experiential, hands-on learning methods are more beneficial for science education than take-home assignments, which might not be as engaging or useful from the standpoint of constructivist learning theory.

Additionally, the results are consistent with the ideas of Formative Assessment Theory, which promotes low-stakes, feedback-focused evaluation techniques to enhance student learning. Teachers' reluctance to incorporate homework results into official evaluations is a reflection of their knowledge that formative assignments, like homework, are more helpful in identifying learning gaps than serving as definitive indicators of student accomplishment. Teachers' agreement that practical tasks should not be substituted for in-class assessments underscores the value of contextual and supervised learning in elementary science education, bolstering the idea that although homework helps reinforce concepts, it might not give a full picture of students' comprehension.

This study has a number of limitations that should be acknowledged. First, the accuracy of instructors' responses may be impacted by response biases such as social desirability or recollection bias, which are introduced by the use of self-reported data. Furthermore, the results of this study may not be as applicable to other areas or educational institutions due to its geographic limitation to Delta State, Nigeria. Because open-ended questions or qualitative techniques were not used to examine teachers' experiences more thoroughly, the survey's dependence on a quantitative design further restricts the depth of responses. These restrictions imply that more research might use a mixed-methods approach to collect both qualitative and quantitative information, deepening our grasp of the subject.

This work creates a number of new research directions. First, extending the study to other parts of Nigeria or other educational settings would enable comparisons that would highlight regional variations in how teachers view assignments. Further research might also examine the effects of family members helping with homework in greater detail, especially in light of cultural variables that may affect family involvement in students' education. Qualitative research, such as teacher focus groups or interviews, may offer deeper insights into the particular difficulties teachers encounter and the methods they employ to deal with problems like copying and outside help. Last but not least, looking at alternate evaluation techniques that

supplement homework in evaluating science learning may provide useful suggestions for improving science assessment procedures in elementary school.

Conclusion

To sum up, this study offers important new information about how Delta State, Nigerian primary school teachers view homework as an evaluation tool. Teachers acknowledge the importance of homework in enhancing learning, but they also point out serious issues that compromise its validity as a summative assessment tool. The results indicate that although homework can improve study habits and strengthen classroom instruction, it might not fairly represent students' knowledge or abilities because of things like outside help and the fact that homework is inappropriate for real-world science assignments. The study emphasizes the need for a balanced strategy that employs homework as a supporting, formative tool while depending on other assessment methods to evaluate practical skills and knowledge. It does this by combining concepts from Constructivist Learning Theory and Formative Assessment Theory. These results highlight how crucial contextually relevant assessment procedures are to improving the calibre and precision of scientific education evaluations at the elementary school level.

Implications of the Study for Counselling Psychologists

For counselling psychologists who work in educational settings, the results of this study on primary school teachers' opinions on homework as an assessment tool in scientific teaching have several ramifications. Supporting kids' intellectual, social, and psychological growth is a vital function of counselling psychologists, particularly those working in school systems. The study's conclusions might help counselling psychologists develop better study habits, encourage healthier academic practices, and address variables that might have an impact on students' academic performance. Below is a summary of the consequences for counselling psychologists.

1. Supporting Development of Independent Learning Skills

According to this study, primary school pupils' reliance on outside help from family members poses a severe threat to the usefulness of homework as an evaluation tool. This emphasizes to counselling psychologists how crucial it is to help students develop their capacity for autonomous learning. Teachers and counselling psychologists can work together to provide seminars and interventions that support young students in becoming more independent and responsible with their schoolwork. The reliability of homework as a formative learning tool can be increased by introducing strategies like self-monitoring, goal setting, and time management training that give students the tools they need to approach homework more autonomously.

2. Promoting Parental Understanding of Appropriate Support

Counselling psychologists can help parents understand the kind and quantity of help that promotes learning without impairing a child's autonomy, as teachers have identified parental assistance as a factor that may affect the effectiveness of homework. Counselling psychologists can help parents distinguish between over-assistance and supportive direction by providing instructional resources or parent workshops. This involves supporting methods that foster a child's resilience and problem-solving skills rather than doing chores for them. The

effectiveness of homework as a learning tool can be reduced by counselling psychologists by coordinating family support with educational objectives.

3. Addressing Academic Integrity and Ethical Study Practices

The study's conclusions draw attention to problems with academic integrity, like plagiarism, which undermines homework's validity as a gauge of students' comprehension. Counselling psychologists can help with this by stressing the need for honesty in academic work and encouraging moral study habits. Counselling psychologists can teach academic integrity ideals and explain why individual effort is necessary for genuine learning by engaging with students from an early age. Students can develop a culture of integrity by participating in workshops or counselling sessions that emphasize the ethics of academic honesty and the long-term worth of understanding above grades.

4. Enhancing the Development of Study Habits and Self-Efficacy

By concentrating on helping students build good study habits and self-efficacy, counselling psychologists can assist instructors in using homework as a method to reinforce science learning. According to the study, homework can encourage students to interact with the content, even though it might not be a reliable indicator of success. Counselling psychologists can help students develop better study habits by teaching them how to set realistic academic goals, use self-assessment tools, and create organized study schedules. These techniques can boost students' self-esteem and drive, assisting them in viewing homework as a tool for academic success and personal development rather than as drudgery.

5. Recognizing and Addressing Academic-Related Stress

The results of the study indicate that homework is frequently linked to difficulties with workload for both teachers and students, which might result in stress related to academics. Counselling psychologists can be quite helpful in identifying symptoms of homework-related stress in students and assisting them in creating coping mechanisms. Workshops on stress management, relaxation methods, and advice on striking a balance between work and play are examples of interventions. Counselling psychologists can promote a healthy school environment by assisting students in managing their academic stress, which may enhance their participation in homework and general academic achievement.

6. Collaborating with Teachers to Refine Homework Practices

This study emphasizes the intricacy of using homework as a tool for assessment and the possible advantages of a cooperative approach between instructors and counselling psychologists. Teachers and counselling psychologists can collaborate to develop homework guidelines that strike a balance between student's emotional health and academic rigour. For instance, they can help create rules that restrict the quantity of homework assigned or offer a substitute, stress-free ways to reinforce learning. Counselling psychologists help a positive academic culture by creating an atmosphere in schools where homework is designed to enhance learning without putting students under unnecessary stress.

7. Supporting Students in Practical and Experiential Learning

According to this study, teachers believe that practical science abilities, which call for experiential learning, cannot be evaluated through homework. Counselling psychologists can support experiential learning strategies by highlighting the value of practical applications in the classroom. They can work with teachers to encourage science-related activities in the classroom and assist in setting up spaces where students can practically apply what they have learnt. In addition to encouraging students' growth in problem-solving, critical thinking, and creativity—skills that counselling psychologists acknowledge are essential to holistic development—such an approach reaffirms the importance of experiential learning.

8. Informing Policy and Program Development in Schools

Lastly, counselling psychologists working on educational policy or program creation may find the study's conclusions useful. Counselling psychologists can use the findings of this study to promote policies that adopt a balanced approach to homework in evaluation, making sure that it is used as a formative, supporting tool rather than a high-stakes test.

Recommendations

1. Encourage interventions to help students develop autonomy in completing homework, minimising dependence on external assistance.
2. Conduct workshops to guide parents on providing appropriate homework support that fosters independence without completing tasks for students.
3. Implement programs to teach ethical study practices, emphasising the importance of honesty in homework to ensure it accurately reflects individual understanding.
4. Provide students with strategies to improve study habits, such as time management and self-assessment, to increase engagement and motivation.
5. Offer stress management resources and counselling for students to help balance academic responsibilities with well-being.
6. Work with teachers to develop homework guidelines that balance learning goals with students' mental health and workload considerations.
7. Encourage hands-on and practical learning opportunities in science to complement homework, improving comprehension of scientific concepts.
8. Participate in policy discussions to advocate for formative assessment practices that emphasize homework as a support for learning rather than a primary evaluative tool.

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