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ASSESSMENT-INFORMED INSTRUCTION AND PERCEIVED STUDENT LEARNING OUTCOMES IN SECONDARY SCHOOLS IN RIVERS STATE

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Abstract

This study examined the assessment-informed instruction and perceived student learning outcomes in secondary schools in Rivers State. The study adopted a descriptive survey design. A total of 285 teachers, comprising 138 males and 147 females, were selected using stratified random sampling from the three senatorial zones of Rivers State. Data were collected using a structured questionnaire titled Assessment-Informed Instruction and Student Learning Outcome Questionnaire (AIISLOQ). The instrument yielded a reliability coefficient of 0.84 using Cronbach's alpha, confirming its internal consistency. Data were analysed using mean, standard deviation, and independent t-test at a 0.05 level of significance. Findings revealed that teachers in Rivers State public secondary schools utilised assessment data in instructional planning to a low extent. However, they perceived assessment-informed instruction as having a high positive impact on student learning outcomes. The t-test analysis further showed a significant difference ($p=0.03<0.05$) between male and female teachers in their level of assessment data utilisation, favouring male teachers, while no significant difference existed ($p=0.07>0.05$) in their perception of its impact on students' learning outcomes. Based on the findings, it was recommended, among others, that teachers be given continuous professional development on assessment data interpretation and utilisation and that school administrators should promote evidence-based instructional practices.

Keywords: Assessment-informed instruction, data utilisation, learning outcomes, gender differences

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Introduction

In contemporary education, assessment is no longer seen as a means of awarding grades but as a critical feedback system that strengthens both teaching and learning. For learners to reach their full potential, teachers are expected to make instructional decisions based on reliable data obtained from student assessments. This approach, commonly known as assessment-informed instruction, involves using results derived from assessment to plan lessons, adjust teaching methods, and enhance learning experiences for each learner's needs. Assessment-informed instruction is a method where teachers plan and deliver their lessons based on information they get from tests, assignments, observations, and classroom participation. According to Amakiri and Inko-Tariah (2021), assessment-informed instruction makes teaching more responsive to learners' needs instead of relying only on the syllabus or assumptions about what students know.

When teachers properly use assessment results to plan their lessons, they can easily identify weak areas, adjust teaching methods, and help learners perform better. Opesemowo and Ogunsakin (2025) observed that utilising assessment data improves teachers' instructional choices and increases students' participation and learning outcomes. Student learning outcomes (SLOs) are the measurable achievements students are expected to show after learning. These include knowledge gained, skills developed, and positive attitudes towards learning. Benson (2020) defined learning outcomes as clear evidence that learning has taken place through instruction. These pieces of evidence are derived when the students are assessed. Data gotten from the test and class activities should be analysed and used to make informed teaching decisions.

Assessment-informed instruction influences these outcomes directly, since it helps teachers focus on students' actual learning gaps. When teachers teach based on assessment feedback, they promote better understanding and performance. But if lessons are not guided by assessment data, teachers may continue teaching ineffectively without realising students are not learning as expected. Teachers who understand how to use such data can easily identify students who need help, plan remedial lessons, and give useful feedback. Ugwoji and Kalu (2020) noted that teachers' ability to apply assessment results makes lessons more meaningful and engaging. Also, teachers' perceptions play a big role in how they use assessment data. Those who believe that data-driven teaching helps students to learn better are more likely to apply it. Obiunu, Musa and Gbenedio (2021) found that teachers with a positive view of assessment-informed instruction tend to produce students with better results and motivation. Also, teachers' perception may differ due to gender, experience, or training exposure. Some teachers may see the process as extra work, while others may see it as a professional responsibility.

Furthermore, gender is known to affect the way teachers plan and carry out their lessons, including how they use assessment data. 'Gender' refers to roles and behaviours that society assigns to males and females. In schools, gender differences sometimes show up in teachers' attitudes and classroom practices. According to Babatimehin et al. (2025), female teachers are often more reflective and thorough in lesson planning, while male teachers tend to focus more on content and classroom management. These tendencies may influence how each group uses assessment data. For instance, female teachers may take time to analyse students' scores and adjust lessons, while male teachers may focus more on teaching speed and classroom order.

However, Okoye and Uche (2022) argued that gender alone does not determine how effective a teacher is; competence, training, and motivation are more important. Still, studying gender differences can help improve teacher training and professional development programmes. Sadly, many teachers still carry out tests just to fill records or for promotion purposes, without applying the results to improve learning. Amakiri and Inko-Tariah (2021) stressed that assessment-informed instruction only becomes effective when teachers can interpret and use the data correctly. Despite these benefits, research and classroom observations reveal that many Nigerian teachers still depend on intuition, experience, or outdated lesson notes when planning instruction rather than using students' assessment data (Afolabi & Ogunyemi, 2021). This practice often results in teaching that fails to meet learners' actual needs, hence contributing to poor student performance.

In Rivers State, the pattern remains similar. Although the government continues to emphasise continuous assessment as part of the education policy, many teachers in public secondary schools still make little or no use of assessment information in their instructional planning. The persistent low academic performance of students in both internal and external examinations across Rivers State has remained a serious issue of concern. Despite having qualified teachers and several educational reforms, many secondary school students still fall short of expected performance levels. Continuous assessment, which should serve as a tool for guiding instruction, is often reduced to a mere record-keeping or administrative exercise instead of being used to enhance teaching effectiveness. Preliminary findings reveal that while some teachers rely on assessment results to guide instructional decisions, others hardly use them again after recording the scores. This situation raises doubts about how well teachers apply assessment data in planning and delivering lessons.

Moreover, there seems to be a gender-related dimension to this problem, as male and female teachers may differ in their attitudes, level of commitment, and approach to using assessment information for instructional purposes. Importantly, studies have shown that gender may influence how teachers handle assessment data. Some scholars argue that

female teachers are generally more reflective and data-conscious, while others suggest that male teachers tend to apply assessment results more decisively in refining their teaching practices (Babatimehin et al., 2025). These different opinions and inconsistencies highlight the importance of investigating how male and female teachers in Rivers State differ in their perception of the impact of assessment-informed instruction on learning outcomes in Rivers State public secondary schools.

The main aim of this study is to examine the assessment-informed instruction and perceived student learning outcomes in secondary schools in Rivers State. Specifically, the study seeks to:

1. Determine the extent of utilisation of assessment data in instructional planning among male and female teachers in public secondary schools in Rivers State.
2. Examine the perceived impact of assessment-informed instruction on student learning outcomes among male and female teachers in public secondary schools in Rivers State.

Research Questions

The following research questions guided the study:

1. To what extent do male and female teachers utilize assessment data in instructional planning in public secondary schools in Rivers State?
2. What is the perceived impact of assessment-informed instruction on students' learning outcomes among male and female teachers in public secondary schools in Rivers State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the level of utilisation of assessment data in instructional planning by male and female teachers in secondary schools in Rivers State.
2. There is no significant difference in the impact of assessment-informed instruction on student learning outcomes as perceived by male and female teachers in secondary schools in Rivers State.

Methodology

Design: This study adopted a descriptive survey design. This design was considered appropriate because it enabled the researcher to collect information from a group of teachers, study their opinions, and describe their perceptions without manipulating any variable.

Population: The population of the study comprised all public secondary school teachers in Rivers State. According to data obtained from the Rivers State Ministry of Education (2024), there are about 8,756 teachers distributed across the 23 local government areas of the state. These teachers consist of both males and females, teaching at junior and senior secondary school levels across various subject areas.

Sample: A total of 300 teachers were selected as the sample for this study using the stratified random sampling technique. The stratification was based on gender (male and female) and senatorial zones (East, West, and South-East). From each senatorial zone, 100 teachers were randomly chosen, consisting of 50 males and 50 females. This method ensured that both genders and all senatorial zones were fairly represented in the sample.

Materials: The instrument used for data collection was a self-developed questionnaire titled “Assessment-Informed Instruction and Student Learning Outcome Questionnaire (AIISLOQ)”. The questionnaire was divided into two sections. Section A contained demographic information such as gender, school location, and subject area, while Section B contained statements on teachers’ use of assessment data and their perceived impact on students’ learning outcomes. The items were structured on a four-point Likert rating scale of Very High Extent (4), High Extent (3), Low Extent (2) and Very Low Extent (1). This structure helped in quantifying teachers’ responses for easy analysis. The instrument was subjected to face and content validation by three experts, two from the Department of Measurement and Evaluation and one from Educational Psychology, all in Ignatius Ajuru University of Education, Port Harcourt. The experts reviewed the items for clarity, relevance, and suitability to the study’s objectives. Their corrections and suggestions were incorporated to improve the quality of the questionnaire before it was administered.

To determine the reliability of the instrument, the researcher administered 30 copies of the questionnaire to teachers in Obio/Akpor Local Government Area, which was not part of the main study area. The responses were analysed using the Cronbach Alpha method, and a reliability coefficient of 0.84 was obtained. This value indicated that the instrument was internally consistent and reliable for data collection. The researcher personally distributed the questionnaires to the respondents with the help of two trained research assistants. Adequate time was given for completion, and the assistants ensured proper retrieval of the instruments. Out of the 300 questionnaires distributed, 285 were correctly filled and returned, representing a 95% response rate, which was considered satisfactory for analysis.

Data collected from the field were analysed using the item-by-item analysis involving mean (\bar{X}) and standard deviation (SD). The independent t-test was used to test the hypotheses at a 0.05 level of significance.

Results

Research Question One: To what extent do teachers utilise assessment data in instructional planning in public secondary schools in Rivers State?

Table 1:

Showing mean and standard deviation and item-by-item analysis of teachers utilize assessment data in instructional planning in public secondary schools in Rivers State

S/N	ITEMS	Mean	Std.D	Remark
1	I use students' assessment results to identify their learning strengths and weaknesses.	2.67	0.78	High Extent
2	I analyse students' test and examination results before preparing lesson plans.	2.34	0.81	Low Extent
3	I use assessment data to determine the content and pace of instruction.	2.27	0.85	Low Extent
4	I rely on continuous assessment results to decide when to reteach difficult topics.	1.72	0.91	Very Low Extent
5	I make use of students' performance data to adjust my teaching methods.	2.71	0.89	High Extent
6	I use assessment information to provide remedial teaching for low-performing students.	1.91	0.84	Very Low Extent
7	I use assessment results to plan differentiated instruction to meet learners' needs.	1.85	0.97	Very low Extent
8	I share and discuss assessment data with colleagues to improve instructional planning.	1.63	0.94	Very Low Extent
9	I utilise assessment feedback to improve future lesson delivery.	2.82	0.71	High Extent
10	I use assessment data to evaluate the effectiveness of previous instructional plans.	2.21	0.3	Low Extent
Total Grand Mean		2.21		Low Extent

Mean Range: 1.0-2.0 = Very Low Extent, 2.1-2.50 = Low Extent, 2.51-3.0 = High Extent, 3.1 & Above = Very High Extent

As shown on Table 1, teachers in Rivers State public secondary schools utilise assessment data in their instructional planning to a low extent (grand mean = 2.21). While a few items such as identifying students' strengths and weaknesses (item 1), adjusting teaching methods (item 5) and improving future lesson delivery (item 9) recorded high means; most other areas – like remedial teaching, differentiated instruction, and data sharing – were rated very low. This indicates that although teachers acknowledge the usefulness of assessment feedback, they seldom apply it systematically in their day-to-day lesson planning. Again, a total grand mean

of 2.21 was realised. Hence, in answering the research question, it could be said that teachers utilise assessment data in instructional planning in public secondary schools in Rivers State to a low extent.

Research Question Two: What is the perceived impact of assessment-informed instruction on students' learning outcomes among teachers in public secondary schools in Rivers State?

Table 2

Showing mean and standard deviation and item-by-item analysis of teachers utilize assessment data in instructional planning in public secondary schools in Rivers State

S/N	Items	Mean	SD	Remark
1	Assessment-informed instruction helps students perform better in tests and examinations.	2.82	0.95	Agree
2	Using assessment data in teaching increases students' understanding of lesson content.	2.32	1.03	Disagree
3	Assessment-informed instruction improves students' classroom participation and engagement.	1.94	0.82	Disagree
4	The use of assessment feedback helps students to identify and correct their learning weaknesses.	2.44	1.01	Disagree
5	Assessment-informed instruction enhances students' motivation and interest in learning.	3.24	0.89	Agree
6	Students show greater academic progress when instruction is based on assessment data.	3.01	0.72	Agree
7	Assessment-informed instruction promotes critical thinking and problem-solving skills among students.	1.64	0.93	Disagree
8	Regular use of assessment results helps students develop a sense of responsibility for their learning.	2.11	0.87	Disagree
9	Assessment-informed instruction helps to close the achievement gap among learners.	3.15	0.84	Agree
10	Overall, assessment-informed instruction leads to improved learning outcomes for students.	3.75	0.73	Agree

Findings in Table 2 indicate that items 1, 5, 6, 9 and 11, with mean values of 2.82, 3.24, 3.01, 3.14 and 3.75, respectively, were agreed on because they were up to the criterion mean of 2.50. On the other hand, items 2, 3, 4, 7 and 8 with mean values of 2.32, 1.94, 2.44, 1.64 and 2.11, respectively, were agreed on because they were up to the criterion mean of 2.5. This means that assessment-informed instruction impacts student learning outcomes, enhances performance, motivation, and overall academic progress. It also helps students show greater

academic progress, closing the achievement gap among learners as well as leading to improved learning outcomes for students.

Test of Hypotheses

Hypothesis One: There is no significant difference in the level of utilisation of assessment data in instructional planning by male and female teachers in secondary schools in Rivers State.

Table 3

Independent t-test Analysis of Difference in the Level of Utilization of Assessment Data in Instructional Planning by Male and Female Teachers in Secondary Schools in Rivers State

Gender	N	Mean	Std.D	t-Cal	Sig	Result
Male	138	22.34	2.34	6.23		
					0.03	Significant
Female	147	18.33	5.20			

From the table above, male respondents were 138 while females were 147. Their mean standard deviation values were 22.34 and 2.354 and 18.33 and 5.20, respectively. From the mean values, it is seen that male teachers utilise assessment data in instructional planning more compared to the female teachers. Calculated t was 6.23, while the sig value is 0.03. Hence, since the sig value ($p=0.03 < 0.05$) is less than the alpha value of 0.05, the null hypothesis was rejected and the alternate accepted, meaning that there is a significant difference in the level of utilisation of assessment data in instructional planning by male and female teachers in secondary schools in Rivers State.

Hypothesis Two: There is no significant difference in the impact of assessment-informed instruction on student learning outcomes as perceived by male and female teachers in secondary schools in Rivers State.

Table 4:

Independent t-test Analysis of the Impact of Assessment-Informed Instruction on Student Learning Outcomes as Perceived by Male and Female Teachers in Secondary Schools in Rivers State

Gender	N	Mean	Std.D	t-Cal	Sig	Result
Male	138	30.68	4.13			
				1.85	0.07	Insignificant

Female	147	29.72	4.86
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As presented in table 4, although male teachers had a slightly higher mean perception (30.62) than their female counterparts (29.74), the difference was not statistically significant ($t = 1.85, p = 0.07 > 0.05$). Thus, the null hypothesis was accepted, indicating that both genders hold similar opinions regarding the positive influence of assessment-informed instruction on students' learning outcomes.

Discussion

The results of this study reveal that teachers in Rivers State public secondary schools make limited use of assessment data when planning lessons. This outcome aligns with the observations of Benson (2020), who reported that many Nigerian teachers administer tests mainly to generate scores rather than to guide instruction. The low level of data utilisation observed here may be attributed to inadequate training, lack of time, or minimal administrative emphasis on evidence-based teaching. Despite this, teachers generally recognised that assessment-informed instruction improves learners' performance, motivation, and overall achievement. This perception supports Okoye and Uche (2022), who found that data-guided teaching enhances both teacher decision-making and student understanding. It suggests that even though teachers may not always apply assessment data in practice, they understand its value for improving teaching effectiveness.

Again, the hypotheses showing the significant gender difference observed in data utilisation indicate that male teachers engage more actively with assessment results than female teachers. This may reflect disparities in access to professional development or in attitudes towards record analysis. However, both groups shared comparable views on the benefits of assessment-informed instruction, implying a common appreciation of its role in raising academic standards.

Overall, the study highlights the need for sustained capacity-building workshops on data interpretation and utilisation for teachers of both genders. School heads should also encourage peer collaboration and reflective data discussions to promote consistent use of assessment results in planning and evaluating classroom instruction.

Conclusion

This study established that while public secondary school teachers in Rivers State are aware of the significance of assessment-informed instruction, their practical use of assessment data in instructional planning remains low. Teachers still tend to rely on experience and intuition rather than data-driven strategies to guide lesson delivery. Despite this, they generally agree

that assessment-informed instruction enhances student motivation, understanding, and overall achievement. The observed gender difference in data utilisation indicates that male teachers tend to apply assessment results more effectively than their female counterparts, even though both groups share similar perceptions of its benefits. It is therefore evident that strengthening teachers' capacity in assessment data utilisation is essential for improving the quality of instruction and promoting better learning outcomes across schools in Rivers State.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. The Ministry of Education and school management should organise regular workshops and seminars to train teachers on how to interpret and apply assessment data effectively in lesson planning and evaluation.
2. Administrative Support: School heads should provide supportive structures, such as data review meetings and peer-learning groups, to encourage teachers to engage with student performance data collaboratively. Again, the Rivers State Ministry of Education should strengthen the enforcement of policies mandating the use of continuous assessment results for instructional decision-making.
3. Finally, professional development programmes should incorporate gender-sensitive approaches to ensure both male and female teachers receive equal exposure and motivation in using assessment data.

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