

ENHANCING TEACHING QUALITY THROUGH FORMATIVE EVALUATION STRATEGIES IN SECONDARY SCHOOLS

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Abstract: *Teaching quality is an important factor in teaching and learning. The teacher's effectiveness and the content being taught influence learning. This paper sought to find out how teaching quality can enhance learning in secondary schools. To contextualize this paper, Enugu Urban was used as the area of study. Descriptive survey design was adopted as the methodology. The population of the study comprised of 31 secondary schools with 1,797 teachers. The sample size of 317 teachers was determined using Cochran's formula. Simple random sampling technique was used to draw 10 out of 31 schools. Then, an equal number of teachers was drawn from each school using proportionate sampling technique to represent the population. The study was guided by six research questions. A well-structured and validated questionnaire was employed as the instrument for data collection. The questionnaire's reliability was tested using Cronbach Alpha, yielding coefficient of 0.87. The analysis of the data collected was carried out using arithmetic mean. The findings from the study showed a minimal application and impact of formative evaluation strategies, and the need for its enhancement of teaching quality in secondary schools in Enugu Urban. The study recommended among others the need to organize an in-service training for secondary school teachers in Enugu Urban on the knowledge and skill of formative evaluation.*

Introduction

In education, the quality of teaching is just as crucial as the competency of the teacher delivering it. Formative evaluation is one of the ways of demonstrating the effectiveness of teaching in the lives of the learners. Formative evaluation looks at how well teaching strategies, methods, materials, and educational programmes are working while they are being used. The goal is to make sure that both teachers and students are on the right track.

Enugu State, as the context for this study is in the southeast of Nigeria. Quality education is one of its major goals for the life of its citizens. Therefore, every effort is being made towards the implementation of this goal. However, investigations have shown that formative evaluation method is not been practiced in most public schools. In the study done by Ebuoh (2014), it was shown that evaluation methods such as formative and diagnostic tests were not used by teachers and in consequence affected

students' performance in Biology. A study carried out by Ejinkonye, Ogbonnia and Ezeugo (2024) pointed out that formative assessment strategies were significantly implemented in secondary schools, but the researcher further recommended more training and workshops for teachers on the subject matter.

In the course of this research, through visits to schools, it was generally observed that most teachers teach without evaluating their lessons using student feedback. They are more familiar with continuous assessment, mainly through paper-based tests, to evaluate the performance of their students. The teachers do not take time to evaluate how their teaching strategies, methods, and instructional materials impact on learning. Formative evaluation is about providing ongoing actionable feedback to enhance a programme in the process of its growth and application. It is a mode of learning as you go, assisting in making required changes to ensure that the programme attains its goal (Patton, 2018). This means that formative evaluation is not passive venture but operational. It entails active teaching and active learning. Studies on teaching effectiveness have shown that regular feedback and evaluation help students improve, making learning more dynamic and impactful (Dávila & Huertás, 2024).

Developing and integrating a formative evaluation system is a fresh approach for both teachers and students. Many students are still adjusting too this new method, while numerous teachers lack the necessary knowledge and awareness to navigate it effectively. Faced with challenges, some educators hesitate or feel overwhelmed, often retreating to traditional summative evaluations instead of embracing the

formative system fully. Some teachers use a formative evaluation approach that considers factors like student attendance, classroom participation, assignments, and tests. These elements are scored and recorded based on a set proportion to complete the assessment, however, this method does not fully capture the essence of formative evaluation. The true purpose of formative evaluation is to help guide students' progress rather than recording scores (Li, et al, 2020).

Formative evaluation can be described as a method used for gathering information during the progress and implementation of an educational programme. Its primary goal is to find out strengths, weaknesses and where to improve as the programme is going on (Fitzpatrick, Sanders & Worthen, 2017). This definition pinpoints formative evaluation as a method or an approach that in the course of its application aims at refining educational programme, such as teaching and learning. Similarly, Hansan and Lund (2020) describe formative evaluation as a reflective process with the goal of improving the efficiency of a programme as it unfolds. Formative evaluation is regarded as a continuous feedback that helps adjust a programme as it progresses. In the definition given by Cousins and Whitmore (2022), formative evaluation is a way to gather and analyze data that help shape the development of a programme. It is also a collaborative process that engages stakeholders, such as school administrators or teachers as they work towards improvement.

Formative evaluation is a set of teaching strategies that helps both educators and students track learning progress. It allows them to

observe, evaluate, and refine the learning journey, ensuring that students move forward in line with clear, pre-established goals. By providing continuous feedback, it shapes the learning experience in a way that supports growth and understanding (Dávila & Huertás, 2024). Formative evaluation, therefore, is an ongoing process, a reflective process, a method or an approach, a continuous feedback, a collaborative process, ongoing actionable feedback, all with the goal of improving educational programmes. There is need for teachers to consistently evaluate their instructional materials, teaching methods and strategies using feedback got from their students. Based on the above premise, this paper intends to explore how teaching quality can be enhanced through the application of formative evaluation strategies in secondary schools with a focus on Enugu Urban.

The purpose of the study was to find out how teaching quality can be enhanced through the application of formative evaluation strategies in secondary schools with a focus on Enugu Urban. Its specific purposes include the following:

1. The extent of teachers' uses of formative evaluation in secondary schools in Enugu Urban.
2. Formative evaluation strategies teachers' use in secondary schools in Enugu Urban.
3. The extent of the impact of formative evaluation on students' learning in secondary schools in Enugu Urban.
4. The challenges teachers face in implementing formative evaluation strategies in secondary schools in Enugu Urban.
5. The extent of teachers' agreement on the enhancement of formative evaluation in teaching

and learning in secondary schools in Enugu Urban.

6. Formative evaluation strategies that can enhance teaching quality in secondary schools in Enugu Urban.

The following research questions served as a guide for the study:

1. To what extent do teachers use formative evaluation in secondary schools in Enugu Urban
2. What are the formative evaluation strategies teachers' use in secondary schools in Enugu Urban?
3. To what extent has formative evaluation impacted on students' learning in secondary schools in Enugu Urban?
4. What are the challenges teachers face in implementing formative evaluation strategies in secondary schools in Enugu Urban?
5. To what extent do teachers agree that formative evaluation enhances teaching and learning in secondary schools in Enugu Urban?
6. What are the formative evaluation strategies that can enhance teaching quality in secondary schools in Enugu Urban?

Method

This study was conducted in Enugu Urban, which comprised 31 secondary schools and 1,797 teachers as its population used for this research (Source: Planning Research and Statistics, PPSMB 2024). The sample size of 317 teachers was determined using Cochran's formula. Simple random sampling technique was used to draw 10 out of 31 schools. Then, an equal number of teachers was drawn from each school using proportionate sampling technique to represent the population. This method ensured that the sample of schools and teachers drawn for the study was both unbiased and truly

representative. Six research questions were developed and addressed in accordance with the study’s purpose. The study was carried out using a descriptive research design, which is non-experimental. Data was gathered through a structured questionnaire titled “Teaching Quality and Formative Evaluation Strategies in Enugu Urban Secondary Schools” (TQAFESEUSS) formulated for this research. Six research assistants helped in the distribution and collection of the questionnaire to the target sample. The questionnaire was validated by two

specialists in Educational Research, Measurement and Evaluation, from Godfrey Okoye University, Enugu. The instrument was tested using Cronbach Alpha, which yielded a coefficient of 0.87. The collected data were analyzed using arithmetic mean. Items with ratings 2.50 or higher were accepted, whereas those with ratings below 2.50 were rejected.

Results

Table 1: Responses on the Extent of Teachers use of Formative Evaluation in Secondary Schools in Enugu Urban.

S/N	In my class and school,	VGE	GE	SE	VSE	\bar{X}	Remark
1.	I do not use formative evaluation.	21	32	177	87	1.95	Negative
2.	I have no understanding of how to use it.	28	41	186	62	2.11	Negative
3.	I always use formative evaluation during teaching.	23	44	102	148	1.81	Negative
4.	I often use formative assessment such as, quiz, Tests, and assignments.	116	139	38	24	3.09	Positive
5.	I have seen other teachers apply formative Evaluation strategies.	18	27	56	206	1.48	Negative
6.	Formative evaluation is not emphasized.	20	21	219	57	2.01	Negative

Scaling Statement: Very Great Extent - VGE, Great Extent - GE, Small Extent - SE, Very Small Extent – VSE

In table 1, all the items except item 4 (3.09) have mean scores below the cut-off mean. The respondents’ feedback was negative in items 1

(1.95), 2 (2.11), 3 (1.81), 5 (1.48), and 6 (2.01). This implies that apart from the use of formative assessment, the extent of the use of formative evaluation in secondary schools in Enugu Urban is minimal.

Table 2: Responses on the Formative Evaluation Strategies Teachers Apply in Class in Secondary Schools in Enugu Urban

S/N	In my class, I apply the following formative evaluation strategies when I'm teaching:	SA	A	D	SD	\bar{X}	Remark
1.	Regular feedback from my students on how they Respond to lesson.	104	127	52	34	2.55	Agreed
2.	I create a flexible learning environment.	98	143	48	28	2.98	Agreed
3.	I give my students room to evaluate my teaching Materials and methods.	22	25	211	59	2.03	Disagreed
4.	I monitor students' progress and quickly address Their problems.	132	163	22	0	3.34	Agreed
5.	I encourage students' active involvement in learning Activities and evaluation exercises.	101	170	39	7	3.15	Agreed
6.	I invite students to evaluate my teaching.	23	48	221	25	2.21	Disagreed
7.	I adapt my teaching materials and methods to suit the needs of my students.	34	55	207	21	2.32	Disagreed

Table 2 shows that teachers in secondary schools in Enugu Urban agree on the following formative evaluation strategies they have applied in class: regular feedback from students (2.55), creating of flexible learning environment (2.98), monitoring of students' progress (3.34), and students' active involvement in learning

activities and evaluation exercise (3.15). The respondents disagree that they give students room to evaluate their teaching materials and methods (2.03), that they invite students to evaluate their teaching (2.21) and adapt teaching materials to suit their students' needs (2.32).

Table 3: Responses on the Extent that Formative Evaluation has impacted on Students' Learning in Secondary Schools in Enugu Urban.

S/N	I observed that	VGE	GE	SE	VSE	\bar{X}	
1.	my students are familiar with formative evaluation Strategies.	16	62	215	24	2.22	Negative
2.	formative evaluation has improved my students' Learning experience.	29	51	222	15	2.29	Negative
3.	formative evaluation has helped my students to Identify learning gaps.	20	58	219	20	2.24	Negative
4.	Formative evaluation has improved my students' learning goals.	20	64	230	3	2.31	Negative
5.	My instructional materials and methods help students achieve the stated objectives at the beginning of lesson.	120	152	45	45	3.23	Positive

Table 3 shows that, of all the items, only item 18 (3.23) has mean scores above the cut-off mean. This indicates that teachers agreed that their instructional materials and methods help students achieve the stated objectives at the

beginning of lesson. The mean of the rest of the items indicate a minimal impact of formative evaluation strategies on students in Enugu Urban secondary schools.

Table 4: Responses on the challenges’ teachers face in implementing formative evaluation strategies in secondary schools in Enugu Urban.

S/N	In implementing formative evaluation strategies in my class,	SA	A	D	SD	\bar{X}	Remark
1.	I always find it difficult to allow students to Evaluate my teaching method.	113	126	68	10	3.07	Agreed
2.	It is not using students’ feedback as a key tool for improvement.	118	144	37	18	3.14	Agreed
3.	It is time consuming.	101	123	73	20	2.96	Agreed
4.	It requires adequate training so that I can implement effectively.	164	153	-	-	3.51	Agreed it
5.	I do not have adequate teaching materials.	177	140	-	-	3.55	Agreed
6.	Students often do not respond adequately due to lack Of understanding.	135	151	29	2	3.37	Agreed

Table 4 shows that the teachers all agreed on the challenges of implementing formative evaluation strategies in class with mean scores above the cut-off mean. The responses indicate that teachers find it difficult to allow students to evaluate their teaching methods (3.07), there is difficulty in using students’ feedback as a key tool

for evaluation (3.14), formative evaluation is time-consuming (2.96), teachers require adequate training for effective implementation of formative evaluation (3.51), lack of adequate teaching materials (3.55), and students often do not respond adequately due to lack of understanding (3.37).

Table 5: Responses on the Extent of Teachers’ Agreement that Formative Evaluation Enhances Teaching and Learning.

S/N	I agree that formative evaluation	VGE	GE	SE	VSE	\bar{X}	Remark
1.	Helps me refine my teaching methods.	198	119	-	-	3.62	Positive
2.	Helps me identify students’ learning gaps and Address them.	114	203	-	-	3.35	Positive
3.	Helps me adjust teaching to students’ needs.	213	104	-	-	3.67	Positive
4.	Enhances students’ involvement in learning.	209	108	-	-	3.65	Positive
5.	Enhances students’ learning experience and Academic performance.	227	90	-	-	3.71	Positive
6.	Gives me the opportunity for professional growth.	201	116	-	-	3.63	Positive

Table 5 shows that all the items have mean scores above the cut-off mean. This indicates that the respondents agreed on the items. Formative evaluation helps teachers refine their teaching methods (3.62), helps identify students’ learning gaps and address them (3.35), helps them adjust

teaching to students’ needs (3.67), enhances students’ involvement in learning (3.65), enhances students’ learning experience and academic performance (3.71), and gives teachers the opportunity for professional growth (3.63).

Table 6: Responses on the Formative Evaluation Strategies that can Enhance Teaching Quality in Secondary Schools in Enugu Urban

S/N	The following formative evaluation strategies can make my teaching qualitative:	SA	A	D	SD	\bar{X}	Remark
1.	Periodic review of teaching materials such as, Textbooks, teaching aids or tools, digital tools, etc.	179	138	-	-	3.56	Agreed
2.	Evaluating lesson outcomes to know whether the Targeted objectives are met.	190	127	-	-	3.59	Agreed
3.	Group discussion in the classroom to help the Teacher have quick insight into lesson effectiveness.	186	131	-	-	3.58	Agreed
4.	Regular use of student feedback to help the teacher Understand how students experience their teaching.	165	152	-	-	3.52	Agreed
5.	Encouraging collaborative learning that fosters Interactive and student-centered environment.	169	148	-	-	3.53	Agreed

In table 6, the responses show that the teachers all agreed to the items with mean scores above the cut-off mean. This implies that formative evaluation strategies can enhance teaching quality through periodic review of teaching materials (3.56), by evaluating lesson outcomes (3.59), organizing group discussion in class (3.58), regular use of student feedback (3.52), and encouraging collaborative learning (3.53).

Discussion

The study's findings presented in the tables align closely with its underlying research purpose and questions. The results presented in Table 1 indicated that the use of formative evaluation in secondary schools in Enugu Urban is minimal. Formative evaluation is imperative in educational settings since it is used to assess students' learning and provide feedback to teachers on their instructional practice (Luli, n.d).

The findings of the study in table 2 revealed some formative evaluation strategies teachers apply in class and the ones they do not apply in secondary schools in Enugu Urban.

Ekanem, Inyang and Umoh (2019) asserted that applying a well-designed formative evaluation conducted regularly fosters interaction between teachers and students.

The findings of the study in table 3 further revealed a minimal impact of formative evaluation strategies on students' learning in secondary schools in Enugu Urban. Umar and Ameen (2021) suggested that the success of formative evaluation in improving academic performance lies in its focus on students' ability to control the quality of their own performance while learning is ongoing.

The findings of the study in table 4 revealed that teachers in secondary schools in Enugu Urban face challenges in implementing formative evaluation strategies in class. Formative evaluation provides teachers the opportunity to identify and tackle any challenges promptly, ensuring a more effective and efficient problem-solving (Teachfloor, 2024).

The findings of the study in table 5 indicated that teachers agreed that formative evaluation enhances teaching and learning. This aligns with Teachfloor (2024) that formative evaluation enhances effectiveness, efficiency and contributes to the success of programmes.

The findings of the study in table 6, finally revealed that formative evaluation strategies can enhance teaching quality in secondary schools in Enugu Urban. Formative evaluation is an important tool for improving the teaching quality. According to Preskill and Catsambas (2021), formative evaluation is a continuous process that enables teachers to adjust their feedback-informed approaches. It can be used to guide decision-making and boost teaching quality in a dynamic way.

Conclusion

Based on the findings of the study, the following conclusions were made:

1. The application of formative evaluation in secondary schools in Enugu Urban was minimal. Most teachers lack knowledge of formative evaluation. They understand formative assessment better than formative evaluation.
2. There is a minimal impact of formative evaluation strategies on students' learning in secondary schools in Enugu Urban. Most teachers do not give students the opportunity to evaluate their teaching methods and materials.

The ‘almighty teacher’ methodology is more prevalent than student-centered learning.

3. Teachers face challenges in implementing formative evaluation strategies in class in Enugu Urban secondary schools. Teachers face challenges in implementing formative evaluation due to lack of adequate training and instructional materials.

4. Teachers agreed that formative evaluation strategies can enhance teaching quality in secondary schools in Enugu Urban, through periodic evaluation of teaching materials, evaluating lesson outcomes, teacher’s quick insight into lesson effectiveness, and collaborative learning.

Recommendations

Based on the findings, the following recommendations were made:

1. There is need to organize an in-house training for secondary school teachers in Enugu Urban on the knowledge and skill of formative evaluation.

2. The Enugu State Ministry of Education should give attention to formative evaluation practices in secondary schools and encourage teachers to implement it.

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References

Cousins, J. B., & Whitmore, E. (2022). *Collaborative Approaches to Formative Evaluation. Educational Evaluation Journal*, 60(1), 1-16.

Dávila Ramirez, J.R., & Huertás Martinez, J.A. (2024). Formative Evaluation and Quality Feedback: Design and Validation of Scales for School Teachers. *Education XX1*, 27 (2), 167-194. <https://doi.org/10.59441/educxx1.38283>.

Ebuoh, C.N. (2014). Formative Tests as a Predictor of Students’ Performance in Diagnostic Tests in Secondary School Biology. *Journal of Education and Practice*, 5 (29), 38 -42.

Ejinkonye, F.O., Ogbonnia, A.N., Ezeugo, N.C. (2024). Assessing the Application of Assessment for Learning Strategies in Nigerian Schools: Case Study of Union Secondary School, Eha-Amufu and Enugu State. *International Journal of Research in Education Humanities and Commerce*, 5 (1), 321 – 331. <https://doi.org/10.37602/IJREHC.2024.5128>.

Ekanem, J.T., Inyang, E.B., & Umoh, I.M. (2019). Impact of Formative Evaluation Modes on Learning Outcomes among Senior Secondary Agric Science Students in Uyo, Akwa Ibom State. *Journal of Education, Society and Behavioural Science*, 32 (4), 1-11.

Fitzpatrick, J. L., Sanders, J. R., & Worthen, B. R. (2017). *Program Evaluation: Alternative Approaches and Practical Guidelines* (5th ed.). Pearson

Hansen, H. T., & Lund, T. (2020). *Formative Evaluation in Program Implementation:*

Strategies for Learning and Improvement. Journal of Program Evaluation, 45(2), 200-213.

Li, Y., Huang, S., Huang, X., Zhou, Y., Tang, Q., & Liao, X. (2020). Discussion & reflection of Formative Evaluation Integrated into the Classroom Teaching Mode of PAD Class in the “internet Plus” Era. *Creative Education* 11(8), 1521-1527.

Luli, F. n.d.). Understanding Formative Evaluation: Definition, benefits, and Best Practices. Retrieved from evalcommunity.com

Patton, M. Q. (2018). *Principles-Focused Evaluation: The GUIDE*. Guilford Press.

Post Primary School Management Board (2024). Planning Research and Statistics, Enugu State.

Preskill, H., & Catsambas, T. T. (2021). *Reframing Evaluation: Exploring the Role of Formative Evaluation in Organizational Learning. Evaluation and Program Planning, 84, 101853.*

Teachfloor (2024). What is Formative Evaluation?
<http://www.teachfloor.com/elearning>.

Umar, A.M.A.T., & Ameen, A.A. (2021). The Effects of Formative Evaluation on Students' Achievement in English for Specific Purposes. *World Journal of English Language, 11 (2), 107 – 120.*
<http://doi.org/10.5430/wjel.v11n2p107>