

ROLE OF FORMATIVE ASSESSMENT TECHNIQUES ON STUDENTS' PERFORMANCE AT SECONDARY LEVEL

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ABSTRACT

The purpose of the study was to explore the role of formative assessment techniques on students' performance at secondary level. Objectives of this study were: (1) To investigate the formative assessment techniques. (2) To examine the Effects formative assessment techniques on students' performance. In this Research work following questions were used :(1) What are formative assessment techniques? What are the effects of formative assessment techniques on students' performance? All the Public Sector Secondary School Students were the population in this study. A sample of 300 secondary school students were the sample in this research work. Sample was selected randomly. A closed ended questionnaire was developed for the collection of data. All the research procedure was followed. Data was collected as mentioned in the sample. Collected data was tabulated, analyzed by using percentages. It was concluded that the role of formative assessment is very constructive and beneficial for the students. It is recommended that It is recommended that teachers should be well prepared in the light of Students Learning Outcome (SLOs) before the class for formative assessments.

Keywords: Formative Assessment Techniques, Performance, Secondary Level

INTRODUCTION

The technique of assessing a student's knowledge as they are gaining it is known as formative assessment. This kind of continuous assessment entails creating a set of quick-fire questions and assignments to track the student's development throughout the course. throughout the duration of the teaching session. The process of formative assessment involves gathering and analyzing data about students' academic development. To sum up, formative assessment is a continuous, dynamic process that aids in student learning by providing them with feedback and allowing teachers to adjust their methods as needed. According to Bell (2012), it is a useful technique for increasing student involvement and accomplishment.

Statement of the Problem

It is impossible to overestimate the importance of formative evaluation in the realm of education. Teachers can actively include students in their own

learning process through formative evaluations, which go beyond just testing material.

Significance of the Study

This study is quite significant for the community as a whole. Parents in particular need to learn more about formative assessments.

Objectives of the Study

To investigate the formative assessment techniques. To examine the effects of formative assessment techniques on students' performance.

Research Questions

What are the formative assessment techniques? What are the effects of formative assessment techniques on students' performance?

Formative Assessment Techniques

Teachers use formative assessment techniques to get information about how their students are learning throughout the curriculum. By using these strategies, teachers can better understand their students' abilities and knowledge, which enables them to modify their lesson plans (Fisher & Frey, 2014). The following are some methods for formative assessment:

Classroom Debates

Getting students involved in debates about the material being taught might reveal important information about their comprehension. Instructors have the ability to quiz students and evaluate their work.

Questioning

During class, posing open-ended questions promotes critical thinking and enables teachers to gauge their students' understanding. Socratic inquiry and Think-Pair-Share are two useful strategies

Exit Tickets

Students respond to a quick series of questions or prompts pertaining to the day's material at the conclusion of a lesson or class. This gives the teacher quick feedback on what the students have learnt.

Polls and Quizzes

Short quizzes or polls are an efficient way to gauge how well pupils understand the material. Peer Assessment: Students assess one another's contributions. You can use this for group projects, assignments, and presentations.

Concept Maps:

Using connections between ideas and concepts, students illustrate what they know about a subject using visual aids. This may highlight misconceptions and knowledge gaps.

Self-Assessment:

Students evaluate their own comprehension of the material and their advancement towards the learning goals. This promotes metacognition and goal-setting.

Observations

Teachers can evaluate their students' comprehension and teamwork abilities by observing their

participation, behavior, and interactions during in-class activities or group projects.

Think-Aloud:

As they work on a task or solve an issue, students explain what's going through their minds. Teachers can use this to find out where their kids are strong or weak.

Muddiest Point:

Students indicate what about a lecture or activity is the most ambiguous or perplexing. This points out places that require more explanation.

One-Minute Paper:

Students summarize the main ideas of a lesson in a one-minute paper at the conclusion of class. This facilitates teachers' evaluation of pupils' retention.

Graphic Organizers:

To arrange material and show knowledge, students fill out graphic organizers such as idea webs, Venn diagrams, or KWL charts.

Peer Feedback:

Students provide their peers helpful criticism on their projects or presentations. You can use rules or rubrics to structure this.

Digital Learning Analytics:

Data about students' progress, including completion rates, time spent on assignments, and quiz results, is frequently provided by educational technology platforms.

Portfolio Assessment:

Students gather their work over time, showcasing projects, essays, and thoughts. This offers a thorough perspective on their development.

Journals OR Reflections:

As a way to communicate their ideas and understanding of the material, students often write in journals or complete reflective projects (Sriva-Stava & Waghmare, 2018).

Effects of Formative Assessment

The performance of students and the overall learning outcomes can benefit from formative evaluation in a

number of ways. Here are a few of the main outcomes:

Improved Understanding:

Students receive immediate feedback about their learning progress through formative testing. This aids in their comprehension of the subject matter by pointing up any areas in which they could be having difficulty or misunderstandings.

Increased Engagement:

Students are more likely to remain involved in the learning process when they are aware that their progress is being tracked and that they will get feedback. Participation and motivation may increase as a result.

Improved Self-Regulation:

Through formative assessment, students are motivated to take an active role in their own education.

Expectations Clarification:

It is frequently beneficial for students to know exactly what is expected of them.

Reduced Anxiety:

Formative assessments can aid in lowering test anxiety because they are often low- or no-stakes exams.

Identification of Learning Gaps:

Instructors can pinpoint certain areas in which students are having difficulty by using formative assessment data.

Customized Instruction:

Teachers can modify their lesson plans and instructional resources in response to student needs through the use of formative assessment.

Higher Achievement: When formative evaluation is used properly, students are more likely to understand the subject and do better academically. Feedback For Improvement:

Formative evaluation yields precise and practical feedback. Students are able to enhance their work by using this feedback.

Fostering a Growth Mindset:

Through study and effort, students who have a growth mindset believe they can improve their abilities and intellect over time. Formative assessments can help foster this kind of thinking.

Promoting Reflection:

When reviewing formative assessment comments, students frequently reflect. Their comprehension may be enhanced, and knowledge may be retained over time, as a result of this introspection.

Supporting Differentiation:

Information from formative assessments can be used to identify kids who comprehend at different levels. Afterwards, educators may tailor their lessons to each student's requirements through differentiation.

Long-Term Learning:

Rather of focusing just on short-term memorization, formative evaluation helps students retain information and skills over the long term by identifying and correcting misunderstandings and learning gaps early on. It is crucial to remember that formative assessment's efficacy is dependent on its application. Effective formative assessment involves clear learning objectives, meaningful feedback, opportunities for improvement and supportive learning environment. When used as a part of a well-designed instructional process, formative assessment can significantly enhance students' performance and learning experiences (Pla-Campas, Arumí-Prat, Senye-Mir, & Ramírez, 2016).

Self-assessment is a type of formative evaluation that gives students quick feedback on how they performed in comparison to predetermined standards and criteria, along with recommendations for enhancing their learning objectives and methods (Crooks, 2007). Harrison and Harlen (2006) assert that since it allows students to actively engage in learning goal activities, self-evaluation is one of the fundamental components of formative assessment. One method by which students can provide comments on the work of other students is through peer review (Topping, 2009). Peer assessment fosters a more collaborative learning environment in the classroom (Kollar & Fischer, 2010).

"Assessment for learning: Understanding teachers' beliefs and practices" was the focus of Edmund Song

and Kim Koh's (2010) study. Their study looked into how instructors perceived students' learning and how formative assessment techniques connected to that view. Two self-report surveys were created to gauge teachers' opinions about students' learning and how they employ formative assessment. Preliminary research indicates that if teachers see their students as active learners who must evaluate and monitor their own understanding, they will be more likely to use formative assessment strategies like questioning to elicit evidence of comprehension, formative feedback, peer-self assessment, task clarity, and success criteria.

One may argue that academic teaching serves as education's primary goal. In order to do this, it is expected that schools would have an effect on children's academic achievement, social development, and even job preparedness. However, academic achievement is important even with the emphasis on a wide understanding of educational outcomes. It is typical to hear the term "student academic performance" while discussing higher education. However, for the purposes of this study, a student's ability to finish a specific assignment in a classroom determines their level of academic performance (Ampofo & Owusu, 2015).

RESEARCH METHODOLOGY

Research technique may be used to tackle the research problem methodically. It may be thought of as a science that investigates the methods used in scientific inquiry. In it, we look at the several methods that a researcher usually use to assess his research problem and the justifications for each one. In essence, research technique describes "how" a particular study is carried out in real-world settings. More precisely, it concerns the rigorous design procedure that a researcher does in order to provide reliable and accurate results that address (Goddard & Melville, 2004).

Research Paradigm

Positivism is the paradigm used in research. The positivist paradigm is predicated on measurement and reason, holding that information may be acquired by impartially observing an activity, action, or reaction and then quantifying it. According to positivism, anything cannot be known for sure if it is

not quantifiable in this way (Park, Konge & Artino Jr, 2020).

Research Design

The nature of this study approach is descriptive and quantitative. To gather data, a closed-ended questionnaire was created.

Population

The population of this research study consisted of all 9380 female secondary school students in District Mardan (EMIS, 2019).

Sample

A sample of (300) Secondary School Students (Girls) at District Mardan was the sample in this research work. Sample was selected randomly (Krejcie & Morgan, 1970).

Respondents	No	Total
Students	300	300

Research Instrument

To gather data, a closed-ended questionnaire was created. Every step of the research process—pilot testing, reliability, and validation—was completed.

Validation

The supervisor, co-supervisor, and specialists in secondary education verified the research tool.

Pilot Testing

Eighty students were chosen for the pilot exam from several Mardan secondary schools. A researcher visited the students in person and gave them the questionnaire. Reliability was computed at 0.79 after testing the collected data.

Data Collection & Analysis

Data was collected as mentioned in the sample. Collected data was arranged and analyzed.

DATA ANALYSIS AND INTERPRETATION

Objective No.1

To investigate the Formative Assessment techniques

Item	Statement	No	Agreed	Disagreed	Undecided	(%)	(%)	(%)
1	Teacher explains the rules of formative assessment in the class	300	288	06	06	96.00	2.00	2.00
2	Teacher is observing you in the class		291	07	02	97.00	2.30	.70
3	Teacher offers regular descriptive feedback		298	01	01	99.30	.30	.30
4	Teacher is asking short questions during the class		288	01	11	96.00	.30	3.70
5	Teacher engages you in self-reflection in your learning		287	10	03	95.70	3.30	1.00
6	Teacher arranges verbal quizzes during learning		289	08	03	96.30	2.70	1.00

A comment was requested from (300) secondary school students, as item No. 1 demonstrates. Consequently, the students in Table 288 to that statement who had a percentage of (96.00) picked "Agreed," students who had a percentage of (2.00) chose "Disagreed," and students who had a percentage of (2.00) chose "Undecided." A comment was requested from (300) secondary school students, as item No. 2 demonstrates. Consequently, in response to that statement, (02) students with a percentage of (.70), (07) students with a percentage of (2.300), and (291) students with a percentage of (92.10) chose "Disagreed." Item No. 3 demonstrates that (300) secondary school students were asked to make a comment. In response, 298 students with a percentage of (99.30) picked "Agreed," 01 students with a percentage of (.30) chose "Disagreed," and 01 students with a percentage of (.30) chose "Undecided" in relation to that statement. Item No. 4 demonstrates that (300) secondary school students were asked to make a comment. In response, 288 students with a percentage of (96.00) picked

"Agreed," 01 students with a percentage of (.30) chose "Disagreed," and 11 students with a percentage of (3.70) chose "Undecided" in relation to that statement. A comment was requested from (300) secondary school students, as item No. 5 demonstrates. As a consequence, in response to that statement, (287) students picked "Agreed," (10) students chose "Disagreed," and (03) students chose "Undecided." Students with a percentage of (95.60) voted "Disagreed." A comment was requested from (300) secondary school students, as evidenced by item no. 6. Consequently, in response to that statement, students who picked "Agreed" (289) with a percentage of (96.30), "Disagreed" (08) with a percentage of (2.70), and "Undecided" (03) with a percentage of (1.00).

Objective No.2

To examine the effects of formative assessment techniques on students' performance.

Item	Statement	No	Agreed	Disagreed	Undecided	(%)	(%)	(%)
1	Teacher records your feedback on a regular basis during class	300	280	19	01	93.30	6.30	.30
2	Formative assessment facilitates vocabulary learning		228	20	52	76.00	6.70	17.5
3	Formative assessment helps reduce students' anxiety		168	03	129	56.00	1.00	43.00
4	Formative assessment motivates learner to study hard		280	12	08	93.30	4.00	2.70
5	Formative assessment increase students' engagement		275	23	02	91.70	7.70	.70
6	Formative assessment provides feedback that moves learners forward		273	26	01	91.00	8.70	.30

A comment was requested from (300) secondary school students, as item No. 1 demonstrates. Consequently, of the students who responded to that statement, (280) picked "Agreed," (19) chose "Disagreed," and (01) chose "Undecided." Students

with a proportion of (93.30) chose "Disagreed." A comment was requested from (300) secondary school students, as item No. 2 demonstrates. In response to that remark, students who picked "Agreed" (228) with a percentage of 76.00, "Disagreed" (20) with a percentage of 6.70, and "Undecided" (52) with a percentage of 17.50 chose "Undecided." A comment was requested from (300) secondary school students, as item No. 3 demonstrates. Consequently, in response to that statement, (168) students who picked "Agreed," (03) students who chose "Disagreed," and (129) students who chose "Undecided," had percentages of (56.00) and (1.00) respectively. A comment was requested from (300) secondary school students, as item No. 4 demonstrates. Consequently, in response to that statement, (280) students picked "Agreed," (12) students chose "Disagreed," and (08) students chose "Undecided." Students with a percentage of (93.30) voted "Disagreed." A comment was requested from (300) secondary school students, as item No. 5 demonstrates. In response, 275 students with a percentage of (91.70) picked "Agreed," 23 students with a percentage of (7.70) chose "Disagreed," and 02 students with a percentage of (.70) chose "Undecided" in response to the remark. A comment was requested from (300) secondary school students, as item No. 6 demonstrates. Hence, in response to that statement, (273 students) who picked "Agreed," (266 students who chose "Disagreed," and 01 student who chose "Undecided" with a proportion of (.30) voted "Agreed."

FINDINGS

- 96.00 percent of students said that teachers should go over the guidelines for formative assessment with them in class.
- Ninety-seven percent of pupils believed that their teachers were watching them in class.
- 99.30% of students said that teachers provided them with detailed feedback on a frequent basis.
- Ninety-six percent of students said that teachers only asked brief questions in class.
- Ninety-seven percent of pupils said that teachers helped them reflect on their own learning.
- 96.30% of students thought that teachers set up oral tests while they were teaching.
- Ninety-three percent of students said that teachers should regularly record their opinions.

- 76.00 % of students said that Formative Assessment facilitates vocabulary learning.
- 56.00 % of students said that Formative Assessment helps reduce Students' anxiety.
- 93.30 % of students said that Formative Assessment motivates learner to study hard.
- 91.70 % of students said that Formative Assessment increase students' engagement.
- 91.00 % of students said that Formative Assessment provides feedback that moves learners forward.

CONCLUSION

The study came to the conclusion that teachers should provide the guidelines for formative assessment in the classroom, watch students, assess student learning, provide detailed feedback, and pose questions.

It was determined that educators facilitate students' self-reflection, administer oral tests, compile student responses, and ask both brief and lengthy written questions.

Formative assessment was shown to assist students acquire vocabulary more easily, enhance their English, feel less anxious, foster rivalry and competition, and inspire them to work hard in their studies.

The study came to the conclusion that formative assessment boosts student accomplishment, motivation, engagement, and performance on final exams. It also offers feedback that helps students advance.

RECOMMENDATIONS

On the basis of conclusion, it was recommended that: It was determined that instructors should provide the guidelines for formative assessment in the classroom, including observation, evaluation, feedback, questioning, self-reflection, quizzes, feedback, and lengthy written questions. It was suggested that educators maintain historical practices while using more contemporary teaching methods. The study came to the conclusion that formative evaluation helps students acquire vocabulary more easily, improve their English, and feel less anxious and competitive about exams, accomplishments, and activities. It is advised that instructors be well-prepared for formative assessments prior to the class,

taking into account the Students Learning Outcomes (SLOs).

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