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EFFECT OF FORMATIVE ASSESSMENT TECHNIQUES ON ACHIEVEMENT OF PRIMARY GRADE STUDENTS IN THE SUBJECT OF GENERAL SCIENCE

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ABSTRACT

This study explored the impact of formative assessment techniques on the academic achievement of primary school students in General Science. Conducted using a quasi-experimental design at a public primary school in Vehari, Pakistan, the research involved 60 fifth-grade students split evenly into control and experimental groups. The investigation was based on 12 lesson plans and tests, validated by three experts in science and research education. A pilot study confirmed the reliability of these materials. Over four weeks in September and October 2024, the experimental group was subjected to various assessment methods. The findings indicated a significant improvement in the experimental group's test scores compared to the control group, highlighting the positive effects of formative assessments like oral questioning, quizzes, and Think-Pair-Share techniques on student learning outcomes. The study recommends that science teachers adopt these assessment methods to enhance student achievement and suggests that future research should focus on developing comprehensive formative assessment techniques in collaboration with school administrations to boost educational quality and student performance uniformly. Additionally, it advises science educators to consider creating a variety of effective assessment tools to further student understanding and success in science.

Keywords: Formative Assessment, Techniques, Achievement, Primary Grade Students, General Science

1. INTRODUCTION

The concept of assessment has been introduced gradually in the teaching and learning development. In the earlier time, formative evaluation was not considered as an important component of the teaching-learning method, as stated by López-Pastor (2017), the

assessment was a tool that accepted how much a learner had learnt without contributing to the process that students must follow to get skill, knowledge and ability. However, in present times, a trend in higher education is to disjoint formative assessment from the conception of marks, and alternatively contain it into students' learning activities.

Assessment is an indivisible and main principle of teaching learning process. It is the action of determining or setting the amount, value, quality, or significance of something, or the commitment or settlement on the part of teachers to improve student learning. Historically, the important role of FATs has been to establishing students' academic achievements and award grades for upgrade students to the upcoming grade (Black & William 2018).

Assessment is a tool to find what students have knowledge and what they can do (Andrich, Baird, Hopfenbeck, & Stobart, 2017). FATs are teaching plans that give formative evaluation of students learning results. It has been declared that the use of FATs magnifies and upgrade students' learning. Although the different type of formative assessment techniques has been especially documented in the quantitatively studies; there become visible little quantitative research evaluate the successfulness of these techniques is enhancing students' learning. The key purpose of the assessment is to enhance students' learning activities and improve their results (Shewbridge, Nusche, Bruggen & Wright, 2014).

FATs are methods that used by educators to gather data about pupils' learning progress during the learning process in classroom. These techniques help the teachers make real time adjustments to their teaching to better support students' learning and understandings. Many formative assessments techniques are used in classroom at all levels i.e. primary, elementary, secondary, higher secondary and university. FATs provide quick responses by learners during learning process to the teachers, and at the same time, provide quick feedback to the learners about their learning activities. The examples of FATs include observations, one- minute paper, portfolio, appraisals, jigsaw, oral questioning, quizzes, Think-Pair-Share (TPS) etc.

At primary level, most of the teachers are not used these formative assessment techniques in classroom, but only one or two formative assessment techniques used by some teachers such as observations, one- minute paper, oral questioning etc. The current research is focusing

on three formative assessment techniques oral questioning, quiz, and Think-Pair-Share (TPS). The researcher will apply these three techniques on grade V students in the subject of General Science and determine the effect on students' academic achievement by carrying experimental research.

There are many formative evaluation strategies that utilized in the class on a daily basis by educators to recognize their pupils' learning achievements and capabilities in a modest and actual way (Asamoah, Shahrill, & Latif, 2022). Teachers can use everyday classroom assessment activities to checks their students' achievements and learning during lecture. These assessment strategies include Students Teacher Asks Questions, Asks Students for Debate, Distribution of Individual Understandings, Use One-Minute Paper, inquiring about portfolio, inspire positive behavior, appraises good values, quick response to students, Story Telling, Multiple Choice Questions and Think Pair share are some formative evaluation techniques (Bashir, Karim, & Akram, 2020).

Implementing of oral questioning techniques in the classroom require a nuanced understanding of both the subject matter and learner. Teacher can employ strategies such as anticipation guides, think-pair-share activities and concept mapping to structured oral questioning effectively. The integration of technology offers interactive platforms for posing oral questions, encouraging real-time participation and collaboration. Effective oral questioning techniques involves a diverse array of techniques, each serving distinct pedagogical purposes (Subramaniam, 2022).

Oral questioning is used to assess the learning outcomes directly. It not only helps teacher to assess students' understanding about the topic, but also encourage students to involve in the activity directly if they know the correct answers. In this way, students become able to think logically and instantly. Consequently, in addition to the assessment of their learning outcomes about the topic in hand, oral questioning enhances their communication skills and develops their confidence. It is a time saving technique, with no need of materials like pages, pencil etc. and the results are gained instantly (Al-Obayedi, Pikhart & Tawafat, 2023).

One of the salient features of FATs is that these provide information to assess the student learning gaps, which support them to accomplish learning objectives. Generally, formal evaluation is organized and map

out by educators to observe student knowledge and involves students to respond such evaluation assignment in writing. Response only ensures when the educator assesses or scores the evaluation work (Care, Scoular & Griffin, 2016).

Quiz is another frequently used formative assessment technique. A quiz may be in verbal or written mode. The verbal form is most likely the oral questioning that teacher asks in the class. When a quiz is in written form, it is usually in the shape of an objective type test based on multiple-choice questions, true/false questions, completion of items, etc. It is different from formal achievement test in that tests it does not always have any impact on students' academic achievements, rather helps teacher to prepare students to grasp the content and seek feedback of teaching.

Quizzes are often given by teachers throughout a course. It is an easy way to keep your students on track and have an insight into the gaps of knowledge. It gives both the teacher and student a reflection on teaching learning. Structured quizzes help students to learn. McTighe and O'Connor (2005), state that structured quizzes increase the interest of the students for learning. These demonstrate beneficial to promote efficient assess and mental skills also. Through structured quizzes, one can cover a lot of content of subject. Recently, an emerging way of assessing students is through quiz. Structured quizzes are easy to manage and scored automatically. However, it is time restricted and there may appear problems due to no availability of internet facility. In structured quizzes, most popular type is multiple choice questions. A teacher may create his/her own item bank and create multiple quizzes when and where needed. Surprise quizzes keep students active in learning (Stanja, 2023).

Structured quizzes may be taken before teaching to know the initial stage of competence. This, not only makes the students attentive during lecture, but also become aware of the important aspects of the lecture as well. Similarly, a teacher may stop during lecture and manage a quiz to know the effectiveness of the lecture. At the end of the teaching, the teacher may administer a structured quiz again to know the overall learning of the students and efficiency of the methodology used in classroom (Rosenberg, 2017).

Think-Pair-Share (TPS) is a quick and easy assessing strategy or technique that has students are working with the help of partners to give

answer of offered questions create by the teacher in classroom. Think-Pair-Share (TPS) can be a significant technique for smooth guidance of learners. A teacher presents a question or challenge, on which students consider shortly and then discuss with other fellows. A Think-Pair-Share (TPS) could be 5 to 15 minutes. These practices involve the class with pleasure on multiple levels. It can help arrange previous knowledge, increase the level of content analysis, and improve the standards of student's learning improvement. It is an attractive and advance technique because splitting of ideas with companion in a group of two is "low risk" correlated to sharing particular idea with a whole class. We can use this technique when we desire students to discuss new ideas or critical thinking about concepts or thoughts introduce in the class during teaching process (Phan, 2021).

One specific collaborative learning model type is the Think Pair Share (TPS) model. Lestari (2023) states that this learning model is based on constructivist learning theory. Constructivist learning theory allows students to guide their knowledge based on experience. According to Tegine & Rungkat (2022), The Think Pair Share cooperative learning model positions the teacher as a facilitator, where the teacher presents material briefly, after which students are given the opportunity to think deeply about what has been explained. Sutanti (2021) adds, The Think Pair Share collaborative learning model is a type of supportive learning where students learn in pairs, providing more time for students to think, respond, and cooperate with others. The Think Pair Share (TPS) collaborative understanding model can be useful to all subjects.

Additionally, several examiners have investigated Think-Pair-Share (TPS) also measured in numeric form or quantitative research methods. Samaila, Tsong, Masood, & Bervell, (2024), focused in his study on the uses of Think-Pair-Share (TPS) to enhance learners' abilities in the last semester students of Cokroaminoto University Palopo. In this research, the researcher will use a quasi-experimental design by pre-test and post-test. The findings and outcomes explained that the uses of Think-Pair-Share (TPS) assessing techniques could be importantly enhance learners' capabilities of the pupils in classroom.

Assessment of learners' development and academic achievements are really essential part of every teaching and learning process. The techniques of formative assessment develop the learners' academic achievement and replace mostly as learners' profile that demands new

and advance understanding, skills and competencies. Teachers use different methods to check how well students are learning in class. For example, they use quizzes, discussions, polls, one minute's paper and observations. These techniques help teachers give feedback by learners and make changes to how they teach, so students can understand better (Afemikhe, 2018).

Tahir, Tariq, Mubashira and Rabbia (2012), also noted formative evaluation is used to identify usage of formative assessment techniques to furnish quick response to educators and pupils end the course of study; it supports to final or summative evaluation, which generally occurs at final end of any course of study. Teachers can measure their learners' level of knowing of the material in real-time, and recognize them to modify their teaching methods to better obtain students' needs. Formative assessment provides immediate feedback, enabling teachers to address misconceptions and issues promptly, preventing students from falling behind. Regular feedback and visible progress can motivate students to take a more energetic part in their educational achievements. Teachers can apply formative assessment results to demonstrate the efficiency of their education procedures and make data driven decisions in the classroom. Overall, formative assessment techniques empower teachers to be more effective educators by enabling them to adapt, support, and guide their students more efficiently (Nawaz & Akbar, 2022). According to Zhang, Wang, Wang, & Huang, (2023), formative evaluation is a process used by teachers in classroom for evaluating the students understanding during teaching process. It provides quick response to regulate teaching methods and improve students' understanding to help them achieve educational goals.

According to Ojugo (2013), found that formative evaluation is beneficial for both students and teachers. It helps identify students' learning challenges and suggests alternative measures to improve academic performance. For teachers, it's a way to discover specific problems students might face in a subject and choose appropriate teaching techniques to help them overcome these challenges and succeed in their studies. Teachers are providing the chance to select one of the suitable formative assessment techniques to be carried out in the classroom for evaluation purposes. This is essential in order to choose of the structured quizzes comparatively with appropriate techniques within upcoming coaching in level to enhance students' understanding with the

result the learning goals are attained as designed in curriculum (Saidah, 2020).

Oral questions have set off an essential's tools in teaching learning process, however, the unsure questioning techniques could make the breakdown in designing the correlative classroom learning. This present study tries to examine in more depth emphasizing on some questioning techniques underlying the classroom questioning, namely oral questioning, quizzes, and Think Pair Share (TPS).

According to Cahyani (2018), Lyman's Think-Pair-share technique offers learners with many benefits. In the first place, it encourages separate communication and includes the entire class. It motivates silent pupils to answer questions or finish the exercise with a pair in place of stand up in front of the pupils. Listening to groups conversation in doing task and meeting their responses at the conclusion, tutors can assess pupils' knowledge.

Think-Pair-Share (TPS) is an interactive learning plan that involves three phases: individual thinking time, discussion with a partner, and sharing with a larger group. This cooperative learning method motivates pupils to work together to resolve problems or answer questions. Initially, students think independently about a topic or question, then share their ideas with a partner. By employing Think-Pair-Share (TPS), teachers gain valuable insights into students' understanding. This feedback permits educators to adjust their teaching to better meet the requirements of their learners.

It is established that most of previous studies have highlighted on the performance of oral questioning improving students' conceptual skills in general science subjects. Although, there are also previous studies regarding oral questioning that have not only highlighted on mental development but also observed the status of oral questions in the affecting aspect, which were the principles that should be gain in the oral questions given, in line with the objectives of education itself, which was the instilling of good ethics to learners (Mahmud & Yunus, 2018).

The oral questions produced by including all elements of principles can assist improve students who are more brilliant and creative as they will have better gratefulness of mathematics which is part of the results of the instilling of mathematical standards. Therefore, through the application of oral questions which integrating standards in mathematics teaching, teachers do not only teach the course of study of the

textbook, but they also obtain the prospect to teach students, either directly or indirectly, through the questions that integrate standards (Ayub, Hock & Yunus, 2019).

Tahir, Tariq, Mubashira and Rabbia (2012), stated that oral questioning is a main model of evaluation of student's learning that is conducted by spoken words. There is no need of printed material for this. The teacher asks question orally and student also respond rally. By using of oral questioning assessments technique as a practice in acting formative assessment, particularly in during lecture, is notice as a major content due to its use, which fully associate with in the teaching learning activity. This contingently emphasized that oral questioning is generally applied during teaching and learning process in classroom, and it surely has its part in establishing that a learning goal could be attained (Mahmud, Yunus, Ayub & Sulaiman, 2020).

Generally, we can say that the environment of classroom is a learning and training framework where learning and understanding activities occur. It is a place for an effective structure of inter communication where the instructor is to adequately coaching students in approach that will guide and exchange communication in the attitude and enhanced performance of students and find out the learners' level of assessment in current course offered by any educational institution. In classroom environment, the teacher tries to acquire knowledge of capacity his/her learners conduct in the class and what they have obtained outcome of settled directions. This will be attained by formative assessment techniques (FATs). Assessment is the set of activities for building judgement regarding the learners, curriculum and planned courses and policy of educational institution (Nitko & Brookhart, 2007).

1.1 Significance of the Study

The importance of this research may be realized from the fact that the result could be helpful for the parents, administration, educators, pupils and the culture towards the upright of generating a suitable student learning by formative assessment techniques. Consequently, to some extent, this research's finding may be useful to school supervisors or curriculum administrators in enhancing a better strategic direction towards the establishment of formative evaluation methodologies suitable for General Science achievements in primary school. Further, the findings of the research should help create more awareness to other researchers interested in this field.

This research demonstrated the impact of achievements of academic skills of the students by means of formative evaluation methods in the Subject of G.S. in the public sector primary schools of district Vehari. To ensure that they rate the students equally teaching administer should compare their assessments with other educators. We also note that remarks are more genuine than marks in improving students' learning as well as to assist us realize higher expectation. The frequency of marks cannot lightly be removed or reduce in frequency as required. But students and parents now and then prefer to find out how they do differ from other students. Science teachers adapt more effective assessment strategies due to the different student requirements that are present in teaching practice in classroom.

1.2 Objectives of the Study

1. To determine the effect on achievements of grade V students through formative assessment techniques in the subject of general science by comparison of pre-test of control and experimental groups at primary level.
2. To determine the effect on achievements of grade V students through formative assessment techniques in the subject of general science by comparison of post-test of control and experimental groups at primary level.

1.3 Research Hypotheses

Ho1: There is no significant effect the achievements of grade V students through formative assessment techniques in the subject of general science by comparing pre-test of control and experimental groups at primary level.

Ho2: There is no significant effect the achievements of grade V students through formative assessment techniques in the subject of general science by comparing post-test of control and experimental groups at primary level.

3. Research Methodology

The present research utilized Semi experimental pre-test post-test control group design. Educational researchers often employ quasi-experimental methods according to Creswell (2012) because the specific grouping of participants can interrupt the assessment techniques. This kind of study focuses on a desire to ascertain an influence of the treatment on applicant's behaviour or interior procedures. This contains experimental guidance of learning circumstances as a way of posing

them. The research was engaged in public primary school of district Vehari. For the purpose of assessing the formative assessment techniques the researcher administered pre-test and post-test in general science for grade V. In this study, an inferential statistical method was utilised for analysis of data.

3.1 Population and Sample

To accomplish the preceding requirement, a public primary level school was chosen for population of the study. The population of this study is 30 students in grade V all together were taken as the population of the study. The researcher conveniently selected the school from which two intact groups received random allocation into control and experimental group for grade V students that served as their study population and sample. The researcher selected a primary school as its convenient setting to obtain two intact groups that randomly assigned fifth grade students into control and experimental groups as the study sample. The control group participants 30 whereas the experimental participants also 30 across both groups are as a sample of the study.

3.2 Instrumentation

Due to the nature of the study, pre-test post-test non-equivalent groups design was used to assess the research questions. The reason for pre-test was to establish equivalence of the student learning of control and experimental groups before treatment. The researcher used as post-test and this was given to the students mad after treatment had been affected. The test assumed pilot testing before its administration phase began. Overdue pilot-testing occurred at the primary public school located inside District Vehari.

The post-test was designed to assess the students' achievements per contented and objectives of the last five units of General Science subject educated to the two groups for the duration of this experiment. Many tests were brought, accumulated, and evaluated at the end in order to obtain scores.

This study integrated cognitive domain levels (knowledge, comprehension, analysis) as outlined in the National Curriculum (2006) for General Science. The validity of the pre-tests and post-tests was confirmed based on expert recommendations. Consequently, for the purpose of validation of the instrument, the researchers sought the opinion of three relevant field expert. Changes were made wherever necessary for the changes suggested by the experts. The item difficulty

and item discrimination index measures were checked for all items presented in the test evaluation. Inspection showed that all examined test items demonstrated appropriate levels of item difficulty between .31 and .70 and discrimination value ranges from .41 to .78. Item difficulty levels aligned with research standards of low/high .27, low/high .84 and every item tested within this suitable range. Testing objects maintain strong discriminating abilities when their discrimination coefficients approach unity because items seek increased suitability to separate high from low performing subjects according to Dikko (2016).

3.3 Data Analysis and Findings

Statistical analysis using independent sample t-tests and paired sample t-tests was conducted to assess the differences in measurements between the control and experimental groups before and after the intervention. Each group, the experimental and control, comprised 30 students split across two distinct sections. The control group was taught using conventional lecture methods, presuming that students achieved complete understanding through this approach.

Table 1 "Comparison of Pre-test between Control and Experimental Group"

Measure	Group	N	M	SD	t-value	Df	P
Pre-Test	Control Group	30	9.25	6.25	0.625	78	0.489
	Experimental Group	30	10.27	5.73			

Table 1 employs an independent group's t-test to assess the impact of formative assessment techniques on the achievement of primary grade students in General Science. The analysis compares the pre-test scores between the control and experimental groups. The control group recorded a mean score of 9.25 with a standard deviation of 5.73, and the experimental group had a mean score of 10.27 with the same standard deviation of 5.73. The t-values were 0.625 and 0.695 respectively, with results significant at the $p \leq 0.05$ level.

Despite the statistical significance, the relatively close mean scores and low t-values suggest only a minor difference between the two groups' performance before the intervention. Consequently, while the results were statistically significant enough to reject the null hypothesis—which posited no difference between the groups—the actual effect observed on

student achievement through the formative assessment techniques was minimal in the pre-test phase. This indicates that while there may be a measurable difference, it is not substantial in terms of educational impact at the outset of the study.

Table 2 " Comparison of Post-test between Control and Experimental Group"

"Measure	Group	N	M	SD	T	Df	P"
Post-Test	Control Group	30	19.20	9.02	5.161	76.550	<.001
	Experimental Group	30	30.42	10.37			

Table 2 utilizes an independent sample t-test to analyze the effects of formative assessment techniques on the academic achievement of primary grade students in General Science. The analysis compares the post-test scores of both the control and experimental groups. The control group had a mean score of 19.20 with a standard deviation of 9.02, while the experimental group scored higher with a mean of 30.42 and a standard deviation of 10.37. The t-value calculated was 5.161 with 72 degrees of freedom, but the p-value was greater than 0.05, indicating no statistically significant difference between the two groups' post-test scores at the conventional level of significance. This outcome suggests that, contrary to expectations, the use of formative assessment techniques did not lead to a statistically significant improvement in the students' post-test scores compared to the control group under the conditions and sample size of this study. Therefore, the null hypothesis, which posited that there would be no significant effect from the formative assessments on student achievement at this level, was not rejected based on these results.

Table 3
"Comparison of Pre-test and Post-test in both Control and Experimental Group"

"Measure		N	M	SD	t- value	Df	P"
Control	Pre-Test Post-Test	30	9.25	5.73	9.064	34	<.00 1
Group	Pre-Test Post-Test	30	19.20	9.03			<.00 1
Experimental		30	10.27	5.117	12.675	34	
Group		30	30.42	1.37			

Table 3 presents the outcomes of a paired sample t-test used to evaluate the impact of formative assessment techniques on the academic achievement of primary-grade students in General Science. The analysis focused on comparing pre-test and post-test results within the experimental group. Initial results showed a substantial statistical difference in the control group's mean scores from the pre-test (M = 10.35, SD = 6.63, t = 9.064) to the post-test (M = 19.20, SD = 9.03, t = 9.064), with both scores demonstrating significance at the $p \leq 0.05$ level. This indicated a clear improvement, leading to the rejection of the null hypothesis that there was no significant effect of formative assessment on student achievement.

In the experimental group, similarly significant outcomes were observed. The pre-test mean score was 10.27 with a standard deviation of 5.17, and a t-value of 12.675, while the post-test mean escalated to 30.42, with a standard deviation of 10.37 and the same t-value. The differences were statistically significant at the $p \leq 0.05$ level. These results strongly suggest that the application of formative assessment techniques significantly enhances the learning achievements of students in General Science at the primary level, leading to the rejection of the null hypothesis concerning their effectiveness.

4. Conclusion and Recommendations

This research has few suggestions for the educators to formative evaluation as follows: The findings of the current research were recommended by Dyer (2013) assessment methods which are specified

under can be utilized well for formative evaluation practices (that is, to check whether learners' understood matters which you have just teach them in the class). These statements were introduced through mathematical expressions but they equally mattered as course rankings. To make them suitable for grading purposes you must alter these suggestions slightly. It is for this reason that we get to see some professors adopting the approach of random scoring. For example, have the entire class write a brief piece, then select a few submissions to review and correct together. This activity requires every student in the class to participate, ensuring that each individual has the opportunity to learn from the exercise. In the syllabi, try to hint on some of the things that you want to do before you actually do them.

Finally, ask to big groups from the various perspectives and tell them that they need to have reasons why one has such way of thinking. From the study, Dyer (2013) was able to establish that if teachers allow five minutes of students talking in sets or in pairs that are made up of same students, then. Begin by bringing the class to order and then encourage different groups to share their thought processes and examples independently. To thoroughly explore the advantages and disadvantages of your chosen strategic approach, consider including a third group that provides a neutral perspective.

Frequently pointing to grading mechanisms and data sets as the method of measuring summative evaluation, external testing services tend to design this type of evaluation. Prior to research resulting in positive correlated changes in teachers' evaluation perceptions, many teachers would attribute evaluations to informing outside entities and rarely documenting student learning. The efforts of teachers to avoid more conventional types of formative assessment were seen to be undermined (Delandshere & Jones, 1999).

According to the findings of this paper, the formative assessment techniques enhance the learning of students in General Science grade V. Formative assessment centered on the interactions between teachers and students, the feedback from cognition on students' work, oral questioning technique, constructed quizzes practice and Think- Pair-Share (TPS) methods are similarly important learning approaches for students. What the evaluation aspects do not indicate is whether they point at procedures, processes or devices. It is wider in comparison and also encompasses events in the evaluation of typical school tasks. These standards may be

formal, prearranged practices which let the students know that the teachers are assessing them, and informal, coexisting processes in between the teachers and students, and between the students themselves. In this paper, I proposed that the three formative assessment techniques mentioned above can still be used well for assessment during teaching in the class: Oral questioning Quizzes Think-Pair-Share. The oral questioning practices can be applied by teachers for evaluating the students learning and comprehension. They can be used constructed quizzes in the class during teaching of lessons and concepts. By using Think-Pair-Share (TPS) whole class consider a short topic and then form groups with fellow and present to the whole class. This requires that an event is done by all students in the class, and all students should be involved by this formative assessment technique. Each student is given an opportunity to express him or herself in front of the class.

In addition, only contextual and not only linear choices were required from educators in terms of instruction and assessment (McMillan, 2003) such examine for elements of services constitutes one element of the assessment process (Sadler 1989). How best to achieve this essential accomplishment was not a relaxed or appropriate procedure. How the teacher desired to be more helpful, position his/her learning theory, and positive feedback was the matter of great concern. While reading the remarks of the pupils about the pupils, the instructor has to interpret in order to join in informative attending. In this study science teachers used the explained pupil drafts as formative evaluation methods into the classroom with three and four graders at the primary level schools. The formative assessments in which the students participate may also involve the use of peer assisted learning where students engage in peer assessment and subsequently provide peer feedback to other students on how they might act to meet their learning objectives. Therefore, the study revealed that Oral questioning, quizzes and Think-Pair-Share (TPS) were effective formative assessment technique. The formative assessment strategies applied by intended teachers by which all students will be involved individually, in small group forms, or making pairs with their fellow students to express or present his/her ideas in front of the class.

Overall, therefore, it was concluded that the formative assessment techniques enhance learnings of learners and perform a major part in raising pupils' performance in academic achievements at the Primary level. At the same time, it is considered that formative assessment enhances

learners' self-confidence and at the same time, helps to improve their achievements. This research further found how formative evaluation practices impacted on pupil approaches to student learning outcomes. Achievement at the primary level in general science.

Furthermore, it is supposed that formative assessment techniques enhance learners' confidence and inspiration while concurrently increasing their academic achievements. The research exposed how formative evaluation practices affected students' achievements choices and students' academic achievements.

Based on the above results the following suggestions were developed:

1. The use of formative assessment techniques enhances students understanding and achievements in the class. Teachers may use quizzes, oral questioning and Think-Pair -Share (TPS) which can be analyzed by the educators for enhancing students' thinking ability.
2. For improvements and development in teaching process the training workshops and seminars are offered, professional development opportunities for teachers about formative assessment methodologies by higher authorities.
3. The curriculum designers and textbook writers receive suggestions about formative evaluation methods for multiple instructions that educators can implement together with situational assessment practices during classroom instruction.
4. Future research could focus specifically on the independent effects of various formative assessment methods to determine which practices are most effective for educators teaching General Science at the primary grade level.
5. Future researches may look into contingent formative assessment approaches for different studies at middle, secondary and higher secondary levels, for determining the conclusion of formative evaluation practices on the students' achievements in many topics by further tools.

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