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Perceptions of Students Regarding the Effect of Formative Assessment Techniques on Students' Learning and Academic Achievement at University Level

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ABSTRACT

The learning process and academic success of students can be significantly impacted by formative assessment strategies. Teachers can use a variety of tactics to gather vital data on their students' understanding, to give feedback, and to assist students in creating and achieving worthwhile learning objectives. Every tactic has the potential to raise educational outcomes and learning. The study's objectives were to find students' perceptions about the effect of formative assessment techniques on students' learning and academic achievement. The population was comprised of all public and private universities of district Lahore. The multistage sampling technique was used in this study. The instrument was a questionnaire in this study. The Cronbach Alpha value was 0.923. Statistics, both descriptive and inferential, were used to analyze the data. SPSS (version 27) was used to analyze the data. The mean score (Mean = 3.76; Standard Deviation = 0.711) of students' perception of the impact of formative assessment

techniques on students' learning reflected a high level of agreement. According to the study's findings, formative assessment techniques caused the majority of respondents to reflect on their degree of agreement as being higher. This research recommended that for future research, the administration and instructors may work together to create a formative assessment plan that will assist them in improving the quality of their teaching and learning as well as it is advised that university instructors use the study to develop various suitable formative assessment techniques to raise students' levels of learning and achievement.

Keywords: *Formative assessment techniques, Students' learning, Academic achievement, University Level*

INTRODUCTION

Effective learning and performance of students depend on formative assessment. It promotes the improvement of students and the customization of education. Formative assessment helps students and teachers by enabling students to become familiar with the learning process, assessment methodology, and criteria to evaluate work. Teachers use the input they receive from formative assessments to increase both the learning performance of their students and their own teaching strategies. Formative evaluation improves student comprehension of learning performance, encourages the development of higher order thinking abilities, metacognition, and provides feedback for the teaching and learning processes (Mikre, 2010). Formative evaluation includes elements such as motivation, engagement, learning feedback, and learning progression (Cauley & McMillan, 2010). Formative evaluation aids in the growth of a variety of skills, the raising of questions, the viability of knowledge, and the reflection on knowledge in students (Etkina, 2002). According to Black and William (1998), formative assessment fills the gap between students' current learning performance and what has to be done to meet the requisite standard. More student-centered formative evaluation strategies are used by teachers (Nawaz, & Akbar, 2022). On the other hand, formative assessment has an indirect impact on students' learning and academic achievement (Pla-Campas et al. 2016).

All activities that students and teachers carry out to gather data that can be used to identify and improve learning and teaching are referred to as assessments. This notion of assessment encompasses examinations and assignments, teacher observation, class discussions, and student work evaluation. Assessment transforms into formative assessment when data from it is used to modify instruction and learning to meet the requirements of learners. When instructors are aware of how their students are developing and where they are encountering difficulty, they can use that knowledge to create more performance opportunities or attempt alternative instructional approaches. These actions could raise students' achievement levels (Black, & Harrison, 2000).

According to Greenstein (2010), teachers might help students in this endeavour by implementing formative assessment strategies. It's a method of comparing what knowledge students possess to that which they lack. A test administered at the end of a chapter or unit to determine how effectively students have absorbed and implemented what they have studied is one of the conventional means that teachers and students have been informed of the education that has taken place. Both learners and instructors go on to the following section of the curriculum after receiving academic awards based on their achievement on these examinations. The distinctive feature of formative assessment is that it "offers instructors with information they can use to improve their instruction and enhance the learning of learners while the race is still underway and the outcome can still be influenced" (Huisman 2018).

Furthermore, formative assessment is a structured process in which the instructors intentionally and continuously absorb confirmation of students' performance and then use this information to boost student engagement and motivation. Formative assessment helps students learn additional for four reasons:

- Ongoing, frequent assessment enables for fine-tuning of curriculum as well as student emphasis on progress.
- Immediate assessment aids in the provision of useful comments/feedback.
- Specific tests, rather than broad assessments permit learners to see how they might improve in specific ways.
- Formative assessment is in line with constructivist learning theories and inspiration (Kathleen et al., 2010)

Formative assessment offers precious information to teachers and students. Stiggins (2005) suggested that learners utilize the information offered to determine if learning is worthwhile. Students will put out more effort if they believe learning is vital. Students who consider that learning is not worth their time and effort are more likely to give up. Stiggins' (2008) stated that students can define individual learning goals by using the "assessment FOR learning" methodology which provides clear criteria, examples of good and bad work and feedback. In order to build students' opinions about their own learning, assessment FOR learning is used (Cauley and McMillan 2010).

The main objective of formative assessment is to address pupil learning difficulties to increase their motivation to study and academic success; as a result, it is not primarily focused on raising students' test scores or academic performance (Stiggins, 2007; Bennett, 2011). Improvements in student learning and accomplishment are related to a variety of elements. It is important to conduct a study on the factors that affect how students learn and grow. Formative assessment is one of the most crucial elements of the teaching and learning process (Harris, et al., 2008). It enables educators to use data to enhance instruction and student learning. Formative

assessment has been studied in the past to raise student achievement. Students' timely input during formative assessment is associated with an improvement in their academic performance (Hameed and Akhter 2020).

Techniques for formative assessment are quick formative tasks that provide teachers with feedback on the lesson while also providing a brief overview and comments on students' learning. In the classroom, teachers employ a variety of strategies to improve learners' academic performance. The teacher uses formative assessment procedures, which are sometimes referred to as classroom assessment techniques. The majority of the researches and investigational studies also has familiar, enhanced achievement by learner to their coverage of a range of configuration of formative assessment. Formative study helps in the development of students' progress from continuous feedback from the teacher. The impact of formative assessment methods on learners' learning and academic accomplishment at the university level, however, has not received much scholarly attention. Researchers increased students' learning and academic accomplishment by providing them with more relevant experiences through the use of formative assessment approaches (Asamoah et al, 2022). To differentiate this study from other studies, the researcher used eleven distinct formative assessment techniques (Teacher asks questions, multiple choice questions, think-pair-share, asks students for discussion, encourages positive behaviour, sharing of personal experiences, use One-Minute Paper, portfolio, appraise Good values, feedback, and storytelling). The findings of this study would demonstrate the value of formative assessment strategies.

Understanding students' attitudes and views of formative assessment is crucial for getting the best results from it (Guo & Yan, 2019). According to research (Kyaruzi et al., 2019), students' opinions of formative assessment are influenced by how they use it. Students' attitudes towards feedback are typically more positive if they believe it to be useful. The timing of the feedback delivery is a significant issue that affects how students view formative evaluation. Students appreciate feedback that can be used right away and is provided as quickly as feasible. The post-course feedback is less engaging and of no utility (Panadero, & Jonsson, 2013). Some students believe that formative evaluation acts as an external motivator and gives them a general understanding of the subject (Weurlander, et al., 2012). It shouldn't come as a surprise because formative assessment typically offers feedback on what was significant in the course and what to anticipate on the test. Other findings indicated that students only value evaluation when it is kind and nice (Kyaruzi et al., 2019) and that students value peer and self-assessment more than teacher-assisted assessment (Bedford & Legg, 2007). Although assessments can take many various forms and be viewed in a variety of ways, they must have an impact on students, instructors, parents, and ultimately the entire society (Babináková et al., 2020). The study's major goal was to determine how college students felt about how formative assessment strategies affected their learning and academic performance.

Problem Statement

Formative assessment can enhance learners' educational learning, according to earlier studies. Many models of formative assessment have been developed, and a lot has been written about them. However, the literature only contains a small number of pertinent quantitative investigations on formative assessment. In university lectures, this paucity is considerably more obvious. To investigate how formative assessment approaches affect students' learning and academic accomplishment at the university level, as well as to provide teachers with recommendations on how to utilize them in university-level classrooms, practical examples are required. There was a clear association between formative assessment methods and the learning of learners, and the researcher looked for it. This study investigates how formative assessment methods affect students' ability to learn and perform in school. The extent to which formative assessment strategies impact students' learning and academic achievement was seen and understood through this research. Overall, the purpose of this study is to confirm if formative assessment methods have an impact on students' academic performance at the university level. Additionally, it aims to determine whether formative assessment affects learners with different cognitive abilities as well as both private and public school pupil understanding in the same way.

Socioeconomic/ Rationale /Practical & Scientific Applications

By examining the impact of formative assessment approaches on students' learning and academic achievements at the university level, this study aims to offer new knowledge to the corpus of the literature on quality education. This study recommends that professors regularly assess pupil progress to keep learning objectives in mind, provide students with a clear goal to strive for, and help students resolve misunderstandings before they deviate from the course. Giving information, it also helps instructors and learners make judgments about the learning and achievement of their charges. This research may be especially helpful in directing some policies intended to close the knowledge gap among learners and what they need to learn (the knowledge gap between learners and what they know). To fill the gap, policymakers create policies based on the wants and needs of learners. Teachers may have the chance to consider how they might support students in enhancing their academic performance and learning through this study.

Research Questions

- 1- What are the perceptions of students about the influence of formative assessment techniques on students' learning and academic achievements at university level?

Literature review**Formative assessment**

Assessment is an essential component in education. An important part of improving students' learning and performance is formative evaluation. Many nations throughout the world

now view formative assessment as the main method of assessment reform in education as a result of the rising understanding of its importance. Additionally, the evaluation contributes actively to a formative evaluation. It has frequently been used in the classroom to help teachers identify their students' learning needs and assess their development in real time so that they can group them according to those needs. One of the most effective strategies to raise student accomplishment is through formative assessment, which is an evaluation of learning rather than only assessing or grading (Stiggins, 2005). According to Kincal and Ozan (2018), "formative assessment" is defined as "the assessment intended to provide direction for enhancement and/or modifications to a program for individual students or a whole class, that is, quizzes, initial drafts/attempts, homework, and questions throughout instruction". In order to better address students' needs and ensure their success, formative assessment entails gathering data on learners while also serving the purpose of assessment (Nhor, Pang, & Em, 2022).

Formative assessment assesses the effectiveness of instruction itself throughout the teaching procedure in sort to change the activity procedure and make certain that the instructional goals are met. It can take the forms of classroom observation, weekly notes, interviews, surveys, learners' grade portfolios, examinations, learners' assessments and among so many other things. Students' self-assessment, peer-assessment, teacher-assessment and collaborative assessment between teachers and students are all examples of formative assessment (Ismail, & Tini, 2020). The real activities and task perform by learners which focus on formative assessment is the major significant aspect of formative assessment. It utilize in university foreign language instruction to develop students' practical communication and practical skills. In classroom work, formative assessment is important element and it helps students to attain higher standards in the classroom (Rickert, 2020)

The following are various definitions of this assessment provided by various scholars:

Black and William, (1998) opined that all activities carried out by students and educators that gives information which can be used as feedback to improve the learning and teaching process are referred to as formative assessment (Bekoe, 2013).

Gibbs (2006) suggested that the procedure of assessing, judging or reviewing students' work or performance to develop and get better their abilities are called formative assessment.

According to all of these definitions formative assessment is a method in which data regarding learning is elicited then it is used to improve the learning and teaching tricks in which students and teacher participate. Formative evaluation involves the idea of response and engages both students and teachers equally. The purpose of formative assessment is to pinpoint each student's learning capacity and provide teachers with high-quality feedback so they may enhance their lesson plans and subject matter. As a result, learning effectiveness can be raised (Liu et al., 2021).

Formative assessment, according to Guskey (2005), can be described as a step-by-step process that includes teacher-led instruction, "correctives," and feedback (Tierney and Charland 2007). According to Hodgson & Pyle (2010), one of the key components of formative assessment is asking questions. A teacher may spend one-third of their time in the classroom

questioning the students, according to Moss & Brookhart (2009).

Learners can utilise formative assessment feedback to detect any inconsistencies between their intended objective and their existing knowledge, comprehending, and competence as well as to be guided through the procedures necessary to reach the goal. According to Bontrager, (2023), a successful category of feedback on tests and homework provides explicit ideas for improvement and provides detailed explanations of any misconceptions, encouraging students to focus their thoughts wisely on the work rather than focusing only on getting the right answer. Lower-achieving children may gain from this type of feedback, say Yeh, (2010) and Casey, (2005), because it emphasizes that learners can improve through effort rather than being doomed to failure. The idea that every single learner may be taught at a higher level is supported by formative assessment, which also disrupts the cycle in which students attribute poor performance to a lack of ability and become discouraged and reluctant to engage in further learning. Formative assessment is another term for an evaluation that takes place throughout the educational process with the intention of enhancing both teaching and learning. Formative assessments are conducted by both the learner and the teacher in order to promote student attainment of the desired learning objectives and to provide feedback for teaching and learning modifications. In order to give students the opportunity to practise and measure how well they have learned what they were supposed to learn, teachers employ a variety of formative assessment techniques and tools, integrating them into instructional activities and making them an integral part of instruction (Hung, & Ha, 2019).

Overall, formative assessment is a collaborative process which ought to benefit to all parties involved, including teachers who want to know how to modify future sessions and students who want to learn more, in order to identify where they need to develop. The educational process should be made more dynamic and adaptable by FA. While it was still possible to adjust the learning sequence, diagnosis and changes should be made. In addition, formative assessment is a method of gathering honest assessment evidence of student's learning and modifying instruction in response to the feedback. Students and teachers can both drive instructional modifications, according to Popham, who says that "assessment elicited confirmation of learners' position is employed by instructor to adapt their continuing teaching methods or by learners to change their present learning techniques."

Evidence of learners' understanding and knowledge, the existence of feedback to the learner and moves in the learning of the learners are all important parts of this definition. Even though formative assessment done after an examination, efficient instructor use it during class to recognize exact pupil misconception, give feedback to students to assist them accurate their mistakes and implement appropriate instructional correctives. Continuous formative assessment is primarily done through informally observations and verbal questions asked of students while they are learning or reviewing knowledge. If the data gathered by the questions and

observation posed to learners is accurate, the instructor can make instructional accommodation to assist learners to learn more effectively. Formative assessment is thus linked with instruction, ideally resulting in a fluid assessment process, instruction and additional assessment and teaching (McMillan et al., 2010).

Formative assessment techniques

FATs are quick formative assessment activities that provide the teacher with feedback on the lesson as well as a quick summary and comments from the students on their learning. There are several formative assessment techniques that may be used in the classroom on a regular basis to help teachers easily and effectively grasp the growth and competencies of their learners.

- **Teacher asks questions**

A key component of interactive formative assessment is questioning (Wiliam, 2011). According to Smart and Marshall (2013), the calibre of a teacher's question can affect the calibre of a student's thought. A good inquiry can help students identify their thoughts, develop their thinking, and scaffold their learning. Different ways of asking questions might help the teacher transfer accountability for learning to the pupil (Swathi, et al., 2020).

- **Multiple choice questions**

Written multiple-choice tests are the most common type of formative assessment used by teachers (Eka Mahendra, 2020). A multiple-choice test is a sort of assessment in which learners are asked to choose the correct or best response from a list of options. It asks the pupil to choose from a list of options that will complete or repair the stem. All inappropriate or distracting comments are referred to as "foils" or "distracters".

- **Think pair share**

Teachers can also benefit greatly from think-pair-share because it can be utilised as an effective type of formative assessment (Agbede, & Ba'aba, 2019). This approach combines thought and communication. Students are given an unstructured question to "think" about and, if required, to write down their answers to. Students are then paired with an associate with whom they will converse and refine their ideas. Students are invited to share their ideas with the class as a whole or with a larger group. This will enable teachers to identify and immediately correct any faults in learners' reasoning. The teacher and students have an opportunity to comment on student ideas throughout the class discussion (Cullinane, 2011).

- **Asks students for discussion**

Engaging students in group projects and debates that can enhance their individual learning will help them become more active learners who can serve as one another's educational resources. Discussion is useful to learning in many areas because it allows learners to process

information rather than simply absorb it. Leading an argument needs different abilities. The goal of a classroom discussion in formative assessment is to acquire learners to think regarding the course material (Ferreira, et al., 2020).

- **Encourage positive behavior**

To foster positive behavior in learners, the teacher employed various tactics (be consistent with rules, acquire the students' full attention before giving them anything, use positive language and body language, mutual respect, be able to recognize learning problems and routine). If students can use some of these approaches in the majority of their lessons, their behavior will improve.

- **Sharing of Personal Experiences**

Teachers share personal experiences with learners in order to inspire them to share their own tales. They may be embarrassed or afraid to speak openly about their experience but witnessing somebody else does so confidently put them at ease.

- **Use One-Minute Paper**

The "one-minute paper," or OMP, is one kind of formative classroom evaluation method that has become compatible with the principle of ongoing quality improvement. OPM is a useful tool for engaging students, giving teachers early feedback on student learning, and giving teachers a better understanding of how well their methods are received by their pupils (Solamo, 2022).

- **Portfolio**

A portfolio, which is a common formative assessment tool, is an intentional compilation of students' work that demonstrates their efforts, improvement and accomplishment in a specific subject to students and others. Portfolios serve a specific purpose and necessitate previous planning. Teachers wanted to keep track of and develop each student's writing abilities by documenting their work and process (Liu, 2013).

- **Appraise Good values**

Teacher evaluates students' moral character. It helps students become more responsible and comprehend the purpose of their study while also providing them with a constructive direction to mould their learning. It aids learners in the development and direction of their actions, beliefs and attitudes.

- **Feedback**

Fontana & Fernandes, 1994 and Frederikson & White, 1997 stated that although most feedback comes from a teacher, learners can also contribute to formative assessment by self-appraisal. Learners who comprehend the learning purposes and assessment criteria, as well as have the chance to reproduce their effort, perform better than those who do not. learners with

learning difficulties who are trained to use self-check tools to check their comprehension of writing and reading tasks improve their performance (Taras, 2006).

- **Story telling**

Storytelling provides children with a unique chance to obtain a deeper comprehension, tolerance and enthusiasm for different civilization also improving their learning and developing a positive approach toward people of different kinds, beliefs and backgrounds. Storytelling may help students to learn and communicate across cultures in a variety of ways.

Learning

“Learning is a procedure that takes place in ambiguous surroundings with shifting basic elements that are out of the individual's control. Learning (defined as practical knowledge) can occur outside of ourselves (in an institution or a computer) is concentrated on criteria for meeting information sets and the linkages that allow to study extra significant than our existing status of knowledge. Learning is the term for the effect of experience on behavior (Houwer, et al., 2013). According to Watkins (2001) cited in Rodriguez & Cano (2007) the word "learning approach" relates to a learner's purpose when confronted with a learning environment as well as how they accomplish assignments as measured by questionnaires (Hasnor, et al., 2013).

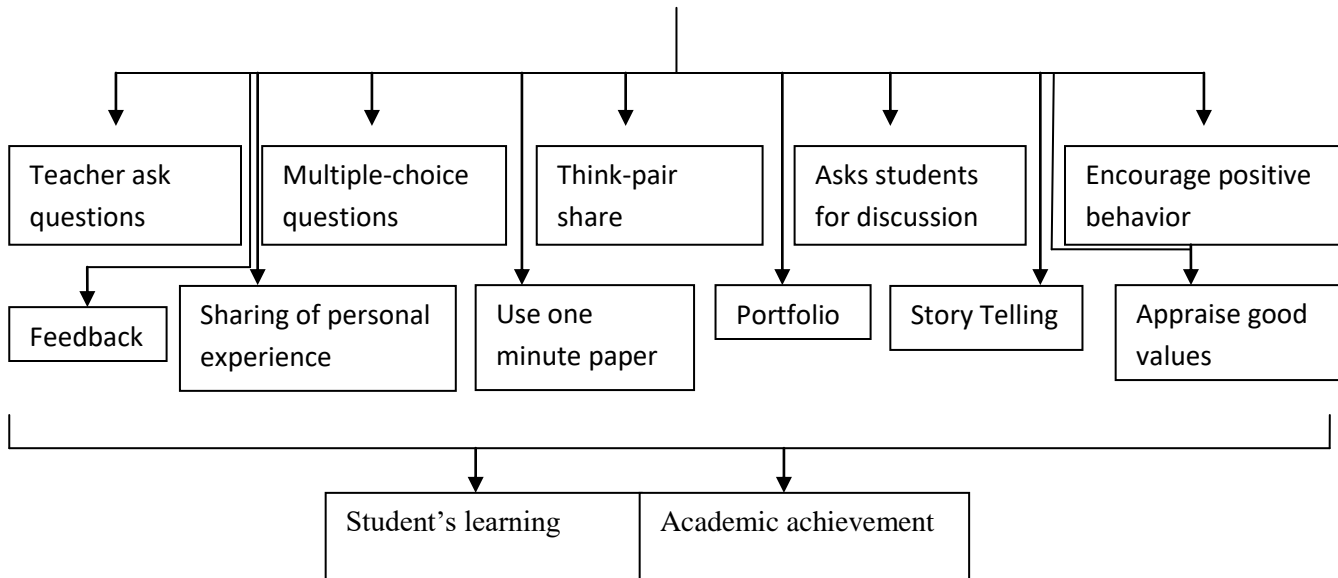
Academic achievement

Learning outcomes have become a topic of widespread interest that hinders effective academic performance. Academic achievement, scholastic functioning and other provisions have been worn in the literature to illustrate this phenomenon. According to Adeyemo (2001), the school's main goal is to help students succeed academically. He claims that while the school may have other objectives, maintaining strong academic standards is always the first priority. Parents usually expect their children to have good academic outcomes, and virtually everyone involved in school places a high value on academic achievement (Dev, 2016). Although there is no question that such accomplishments play a significant role in student life and subsequently in life, academic performance has long been considered to be the most significant consequence of the conventional academic experience (Moore, 2019).

Conceptual framework

Conceptual framework of the study

Formative Assessment Techniques



Research methodology

The investigation was descriptive in nature, and it was carried out using quantitative data collection techniques. Based on a positivistic philosophical perspective, quantitative research is conducted. All of Lahore's universities, both public and private, were represented in the population. There are 37 universities in total in Lahore, 16 of which are public and 21 private (HEC, 2023). From the desired population, a sample was chosen in stages. The sample was chosen using a multistage sampling method. First, the researcher used a stratified sampling technique to identify two strata (public/private). The researcher then used the cluster sampling technique to divide the entire population into three zones (or clusters) based on where they were located. By employing basic random selection, one private and one public university were chosen from each cluster. Using straightforward random sampling techniques, a sample of 600 learners (100 from each public university and 50 from each private university) were chosen (Because public universities are more than private universities, and the researcher just select Education Departments from all universities and select a sample).

Instrument of the study

In order to collect data, a questionnaire was used in this study. The researcher developed a questionnaire (Bashir et al., 2020).The questionnaire's five-point Likert scale format was thought to be useful for gathering data. Strongly disagree to strongly agree were the scale's options. The questionnaires were divided into two main sections: Part one had demographic information, such as gender, university type, and GPA, and Part two contained statements pertinent to the study's research aims, such as formative assessment methods and learning. The respondent was required to provide answers on a five-point Likert scale.

The instrument was validated by pilot testing and experts' appraisal. Three experts were given questionnaires to complete regarding the language, applicability, and structure of the instrument. The students' instrument was given to 30 participants for pilot testing after being revised in light of expert advice. The participant's questionnaires were distributed by the researcher during the pilot testing. The complexity and understandability of the statement were questioned from the respondents. The study's final sample did not contain these respondents. Cronbach's Alpha was calculated to evaluate the instrument's reliability. The student's instrument got a total score of 0.912 while Cronbach's Alpha requires a minimum reliability of 0.75. This proved the reliability of the tool.

Data Analysis

The researcher arranged the data for data analysis after gathering it in Statistical Packages for Social Sciences (SPSS). After that the researcher used descriptive statistics (mean, frequency and standard deviation) for analysis of the data collected in order to identify/find the answers of research question.

Data analysis at factor level

First of all, data have been reported with respect to the factor of formative assessment techniques on students' learning at university level.

Table 1

Effect of formative assessment techniques on students' learning (N=600)

Factors	M	S.D
Teacher asks questions	3.6506	.80379
Multiple choice questions	3.7293	.65858
Think pair share	3.7394	.59150
Asks students for discussion	3.7139	.65833
Encourage positive behavior	3.7779	.66265
Feedback	3.7644	.62609
Sharing of personal experience	3.7683	.80703
Use one minute paper	3.7689	.81235
Portfolio	3.8550	.68476
Appraise good values	3.8306	.81513
Story telling	3.9022	.76832

The aforementioned table shows that, with regard to eleven factors (teacher asks questions, multiple-choice questions, think-pair-share, asks students for discussion, encourages positive behaviour, feedback, sharing of personal experience, use one-minute paper, portfolio, appraise good values, and storytelling), the mean score (M = 3.76; SD = 0.711) of students'

perception about the impact of formative assessment techniques on students' learning was reflected towards a high level of agreement. The average score varies from M=3.65 (teacher asks questions) to M=3.90 (teacher tells a story). Participants' replies indicated that the elements of teacher questioning (M=3.65; SD=0.80) and multiple choice questions (M=3.72; SD=0.65) had higher levels of agreement than the factors of think-pair-share (M=3.73; SD=0.59) and student discussion (M=3.71; SD=0.65), Encourage constructive behaviour (M = 3.77; SD = 0.66); provide constructive criticism (M = 3.76; SD = 0.62); and share personal experiences (M = 3.76; SD = 0.80). Use one-minute papers (M = 3.76; SD = 0.81), portfolios (M = 3.85; SD = 0.68), good values appraisals (M = 3.83; SD = 0.81), and narrative (M = 3.90; SD = 0.76) had higher levels of agreement.

Data analysis at items level

Analyzing data of students' perceptions about the effect of formative assessment techniques on students' learning at factors level, the data were further analyzed at items level for each of eleven factors separately.

- **Teacher asks questions (Factor)**

The first factor of students' perceptions about formative assessment techniques was teacher asks questions. The following table shows the calculated data in detail.

Table 2

Students' Perceptions about teacher asks questions of formative assessment techniques at university level (N=600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
When teacher asks questions I actively seek to understand the subject.	80 (13.3)	53 (8.8)	78 (13.0)	260 (43.3)	126 (21.0)	3.50	1.284
I think critically about concepts and ideas when teacher asks questions.	42 (7.0)	86 (14.3)	91 (15.2)	254 (42.3)	127 (21.2)	3.57	1.177
I can relate new knowledge with previous knowledge when teacher asks questions.	36 (6.0)	48 (8.0)	105 (17.5)	264 (44.0)	147 (24.5)	3.73	1.100
My teachers usually ask questions during the lesson to assess the progress of students in groups.	38 (6.3)	61 (10.2)	85 (14.2)	268 (44.7)	147 (24.5)	3.71	1.136
My teacher asked questions during the lesson to assess individual student progress.	26 (4.3)	70 (11.7)	95 (15.8)	249 (41.5)	160 (26.7)	3.75	1.104

This table demonstrates the formative assessment technique at university level fulfill teacher asks questions criteria/factor at moderate level (M=3.65; SD=0.80). In other words, majority of the respondents were agreed about teacher asks questions during students learning. According to responses, the 64% participants agreed that when teacher asks questions they

actively seek to understand the subject ($M=3.50$; $SD=1.28$), the 63% respondents agreed with the statement of they think critically about concepts and ideas when teacher asks questions ($M=3.57$; $SD=1.17$), 68% agreed that they can relate new knowledge with previous knowledge when teacher asks questions ($M=3.73$; $SD=1.10$), and 69% agreed with teachers usually ask questions during the lesson to assess the progress of students in groups ($M=3.71$; $SD=1.13$) and 68% agreed with teacher asked questions during the lesson to assess individual student progress ($M=3.75$; $SD=1.10$). Perceptions of participants show high level attitude (agree) towards the teacher asks questions during the lesson to improve students' learning.

- **Multiple choice questions (Factor)**

The second factor of students' perceptions about formative assessment techniques was multiple choice questions. The following table shows the calculated data in detail.

Table 3

Students' Perceptions about multiple choice questions of formative assessment techniques at university level (N=600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
When teacher gives multiple choice questions I expect to obtain high scores.	44 (7.3)	53 (8.8)	100 (16.7)	251 (41.8)	152 (25.3)	3.69	1.157
When teacher gives multiple choice questions I take a narrow view and concentrate on detail.	28 (4.7)	68 (11.3)	123 (20.5)	243 (40.5)	138 (23.0)	3.66	1.093
I can perform better when teacher gives multiple choice questions.	39 (6.5)	56 (9.3)	100 (16.7)	246 (41.0)	159 (26.5)	3.72	1.145
I have to memorize information when teacher is to give multiple choice questions.	35 (5.8)	55 (9.2)	67 (11.2)	265 (44.2)	179 (29.7)	3.83	1.128
When teacher gives multiple choice questions I always have to study beyond the course requirements.	27 (4.5)	58 (9.7)	105 (17.5)	255 (42.5)	155 (25.8)	3.76	1.080

This table demonstrates the formative assessment technique at university level fulfill multiple choice questions criteria/factor at high level ($M=3.72$; $SD=0.65$). In other words majority of respondent were agreed about multiple choice questions during learning. According to responses, the 67% agreed with when teacher gives multiple choice questions they expect to obtain high scores ($M=3.69$; $SD=1.15$), 63% were agreed with when teacher gives multiple choice questions they take a narrow view and concentrate on detail ($M=3.66$; $SD=1.09$), 67% were agreed with they can perform better when teacher gives multiple choice questions ($M=3.72$; $SD=1.14$), 73% were agreed with they have to memorize information when teacher give multiple choice questions ($M=3.83$; $SD=1.12$) and 68% were agreed when teacher gives

multiple choice questions they always have to study beyond the course requirements ($M=3.76$; $SD=1.08$). Overall student's perceptions reflected low level of agreement.

- **Think pair share (Factor)**

The third factor of students' perceptions about formative assessment techniques was think pair share. The following table shows the calculated data in detail.

Table 4

Students' Perceptions about think pair share of formative assessment techniques at university level (600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
For sharing ideas with my classmates I need to interact vigorously with the content.	31 (5.2)	47 (7.8)	111 (18.5)	259 (43.2)	152 (25.3)	3.76	1.077
I learn better when I study individually about a topic.	30 (5.0)	47 (7.8)	97 (16.2)	236 (39.3)	190 (31.7)	3.85	1.105
When teacher gives time to think I start to recite information.	42 (7.0)	54 (9.0)	87 (14.5)	283 (47.2)	134 (22.3)	3.69	1.124
When teacher asks to share questions I feel undue pressure and worry about work.	67 (11.2)	68 (11.3)	111 (18.5)	217 (36.2)	137 (22.8)	3.48	1.267
I can relate new knowledge to previous knowledge when teacher gives time to think.	20 (3.3)	64 (10.7)	85 (14.2)	270 (45.0)	161 (26.8)	3.81	1.051
When I work with my peers I develop clarity about concepts.	31 (5.2)	42 (7.0)	103 (17.2)	267 (44.5)	157 (26.2)	3.80	1.067
When I learn with peers I always focus on what is significant.	41 (6.8)	40 (6.7)	103 (17.2)	259 (43.2)	157 (26.2)	3.75	1.120
I always put consistent effort into my studies when I work with my peers.	14 (2.3)	47 (7.8)	125 (20.8)	266 (44.3)	148 (24.7)	3.81	.975
When teacher gives open ended questions I always keep in view time management.	34 (5.7)	55 (9.2)	111 (18.5)	253 (42.2)	147 (24.5)	3.71	1.106

This table demonstrates the formative assessment technique at university level fulfill think pair share criteria/factor at high level ($M=3.73$; $SD=0.59$). In other words majority of respondent were agreed about think pair share technique of formative assessment during learning. According to responses, 68% were agreed with for sharing ideas with their classmates they need to interact vigorously with the content ($M=3.76$; $SD=1.07$), 71% were agreed with they learn better when they study individually about a topic ($M=3.85$; $SD=1.10$), 69% were agreed with when teacher gives time to think they start to recite information ($M=3.69$; $SD=1.12$), 59% agreed with when teacher asks to share questions they feel undue pressure and worry about work ($M=3.48$; $SD=1.26$), 71% were agreed with they can relate new knowledge to previous

knowledge when teacher gives time to think ($M=3.81$; $SD=1.05$), 70% were agreed with when they work with their peers they develop clarity about concepts ($M=3.80$; $SD=1.06$), 69% agreed with when they learn with peers they always focus on what is significant ($M=3.75$; $SD=1.12$), 69% were agreed with they always put consistent effort into their studies when they work with their peers ($M=3.81$; $SD=0.97$) and 66% were agreed with when teacher gives open ended questions they always keep in view time management ($M=3.71$; $SD=1.10$). Overall students' perception reflected higher level of agreement.

- **Asks students for discussion (Factor)**

The fourth factor of students' perceptions about formative assessment a technique was asks students for discussion. The following table shows the calculated data in detail.

Table 5

Students' Perceptions about asks students for discussion of formative assessment techniques at university level (N=600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
When teacher asks for discussion I always try to learn in order to repeat what I have already learnt.	26 (4.3)	65 (10.8)	109 (18.2)	246 (41.0)	154 (25.7)	3.73	1.091
I relate content to background knowledge when teacher asks for discussion.	25 (4.2)	50 (8.3)	110 (18.3)	259 (43.2)	155 (25.8)	3.79	1.055
When teacher asks for discussion I get afraid of my little knowledge of content.	39 (6.5)	77 (12.8)	102 (17.0)	240 (40.0)	142 (23.7)	3.62	1.166
I always clear difficult points of content when teacher asks for discussion.	30 (5.0)	66 (11.0)	109 (18.2)	251 (41.8)	144 (24.0)	3.69	1.103
I always rely on rote learning when teacher asks for discussion.	36 (6.0)	41 (6.8)	127 (21.2)	238 (39.7)	158 (26.3)	3.74	1.105
My teacher usually engages us in small group's discussion regarding the lesson.	28 (4.7)	44 (7.3)	130 (21.7)	258 (43.0)	140 (23.3)	3.73	1.045

This table demonstrates the formative assessment technique at university level fulfill asks students for discussion criteria/factor at high level ($M=3.71$; $SD=0.65$). In other words majority of respondent were agreed about asks students for discussion technique of formative assessment during learning. According to responses, 66% were agreed with when teacher asks for discussion they always try to learn in order to repeat what they have already learnt ($M=3.73$; $SD=1.09$), 69% were agreed with they relate content to background knowledge when teacher asks for discussion ($M=3.79$; $SD=1.05$), 63% were agreed with when teacher asks for discussion they get afraid of their little knowledge of content ($M=3.62$; $SD=1.16$), 64% were agreed with they always clear difficult points of content when teacher asks for discussion ($M=3.69$; $SD=1.10$), 66% were agreed with they always rely on rote learning when teacher asks for discussion

($M=3.74$; $SD=1.10$) and 66% were agreed with teacher usually engages students in small group's discussion regarding the lesson ($M=3.73$; $SD=1.04$). Overall students' perceptions reflected low level of agreement.

- **Encourage positive behavior (Factor)**

The fifth factor of students' perceptions about formative assessment technique was encourages positive behavior. The following table shows the calculated data in detail.

Table 6

Students' Perceptions about encourage positive behavior of formative assessment techniques at university level (600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
My teacher encourages me to reflect on how I can improve my learning.	32 (5.3)	72 (12.0)	101 (16.8)	249 (41.5)	146 (24.3)	3.68	1.126
My teacher encourages me to review on my learning process and to think about ways to improve next time.	31 (5.2)	50 (8.3)	116 (19.3)	239 (39.8)	164 (27.3)	3.76	1.099
My teacher encourages to work in small groups with 2-3 other students (group work).	23 (3.8)	47 (7.8)	119 (19.8)	243 (40.5)	168 (28.0)	3.81	1.050
My teacher has encourages us to work in groups to improve learning.	28 (4.7)	49 (8.2)	97 (16.2)	255 (42.5)	171 (28.5)	3.82	1.081
I am encouraged by my teacher to improve my learning.	30 (5.0)	41 (6.8)	100 (16.7)	264 (44.0)	165 (27.5)	3.82	1.065
My teacher encourages me to share my ideas about what we were learning in class.	31 (5.2)	43 (7.2)	103 (17.2)	247 (41.2)	176 (29.3)	3.82	1.090
My teacher has encouraged us to assess each other's work.	32 (5.3)	62 (10.3)	97 (16.2)	251 (41.8)	158 (26.3)	3.73	1.118

This table demonstrates the formative assessment technique at university level fulfill encourage positive behavior criteria/factor at high level ($M=3.77$; $SD=0.66$). In other words majority of respondent were agreed about encourage positive behavior during learning. According to responses, 65% were agreed with teacher encourages students to think how they might improve their academic performance ($M=3.68$; $SD=1.12$), 67% were agreed with teacher encourage students to review on their learning process and to think about ways to improve next time ($M=3.76$; $SD=1.09$), 68% were agreed with teacher encourages to work in small groups with 2-3 other students ($M=3.81$; $SD=1.05$), 71% were agreed with teacher has encourages students to work in groups to get better learning ($M=3.82$; $SD=1.08$), 71% were agreed with they encouraged by their teacher to improve their learning ($M=3.82$; $SD=1.06$), 70% were agreed with teacher encourages students to share their ideas about what they were learning in class ($M=3.82$; $SD=1.09$) and 68% were agreed with teacher has encouraged students to assess each

other's work (M=3.73; SD=1.11). Overall students' perceptions reflected high level of agreement.

• Feedback (Factor)

The sixth factor of students' perceptions out formative assessment techniques was feedback. The following table shows the calculated data in detail.

Table 7

Students' Perceptions about feedback of formative assessment techniques at university level (600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
My teacher uses quizzes in class to give general feedback on learning.	28 (4.7)	47 (7.8)	84 (14.0)	262 (43.7)	179 (29.8)	3.86	1.074
My teacher has provided real time feedback on our work.	30 (5.0)	38 (6.3)	103 (17.2)	277 (46.2)	152 (25.3)	3.81	1.045
My teacher always gives feedback on how well students understand course material.	23 (3.8)	46 (7.7)	91 (15.2)	252 (42.0)	188 (31.3)	3.89	1.052
My teacher gives feedback to reflect on how I can improve my assignments.	30 (5.0)	43 (7.2)	120 (20.0)	246 (41.0)	161 (26.8)	3.77	1.075
My teacher uses tests in class to give general feedback learning.	32 (5.3)	71 (11.8)	100 (16.7)	247 (41.2)	149 (24.7)	3.69	1.131
When I get a test back I come to know how to do better next time.	22 (3.7)	53 (8.8)	93 (15.5)	249 (41.5)	183 (30.5)	3.87	1.064
After examining my test results, my teacher discusses with me about the answers I have given.	53 (8.8)	65 (10.8)	111 (18.5)	232 (38.7)	139 (23.2)	3.57	1.208
My teacher discusses with me the progress I make.	38 (6.3)	57 (9.5)	109 (18.2)	262 (43.7)	134 (22.3)	3.66	1.115

This table demonstrates the formative assessment technique at university level fulfill feedback criteria/factor at high level (M=3.76; SD=0.62). In other words majority of respondent were agreed about feedback during learning. According to responses, 73% were agreed with in class, the teacher give quizzes to provide general feedback on learning (M=3.86; SD=1.07), 71% were agreed with teacher has provided real time feedback on students work (M=3.81; SD=1.04), 73% were agreed with teacher always gives feedback on how well students understand course material (M=3.89; SD=1.05), 67% were agreed with teacher gives feedback to reproduce on how they can get better their assignments (M =3.77; SD = 1.07), 65% were agreed with in class, the teacher give tests to provide general feedback on learning. (M=3.69; SD=1.13), 72% were agreed with when they get a quiz back they move toward to be familiar with how to do improved next time (M=3.87; SD=1.06), 61% were agreed with after examining their quiz outcome, teacher discuss with students about the answers they have given (M=3.57; SD=1.20) and 66% were agreed with teacher discusses with them the progress they make (M=3.66; SD=1.11). Overall students' perceptions reflected low level of agreement.

- **Sharing of personal experiences (Factor)**

The seventh factor of students' perceptions about formative assessment techniques was sharing of personal experiences. The following table shows the calculated data in detail.

Table 8

Students' Perceptions about sharing of personal experiences of formative assessment techniques at university level (600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
When my teacher shares his/her personal experiences I always become actively interested in the course content.	33 (5.5)	45 (7.5)	108 (18.0)	261 (43.5)	153 (25.5)	3.76	1.084
I always put consistent effort into my studies when my teacher shares his personal experiences.	26 (4.3)	48 (8.0)	97 (16.2)	259 (43.2)	170 (28.3)	3.83	1.062
I relate the conclusion of my teacher personal experience with my learning process.	28 (4.7)	56 (9.3)	113 (18.8)	266 (44.3)	137 (22.8)	3.71	1.063

This table demonstrates the formative assessment technique at university level fulfill sharing of personal experiences criteria/factor at high level (M=3.76; SD=0.80). In other words majority of respondent were agreed about sharing of personal experiences during learning. According to responses, 69% were agreed with when teacher shares his/her personal experiences they always become actively interested in the course content (M=3.76; SD=1.08), 71% were agreed with they always put consistent effort into their studies when teacher shares his personal experiences (M=3.83; SD=1.06) and 67% were agreed with they relate the conclusion of teacher personal experience with their learning process (M=3.71; SD=1.06). Overall students' perceptions reflected higher level of agreement.

- **Use one minute paper (Factor)**

The eighth factor of students' perceptions about formative assessment techniques was use one-minute paper. The following table shows the calculated data in detail.

Table 9

Students' Perceptions about use one minute paper of formative assessment techniques at university level (600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
I learn better when my teacher give one minute to ask about what I learned in class.	29 (4.8)	42 (7.0)	111 (18.5)	266 (44.3)	152 (25.3)	3.78	1.053
I always learn better when my teacher gives one minute to ask what the main question you learned in this class.	34 (5.7)	49 (8.2)	99 (16.5)	257 (42.8)	161 (26.8)	3.77	1.104
I learn better when my teacher asks what you found useful about today's class.	29 (4.8)	54 (9.0)	101 (16.8)	268 (44.7)	148 (24.7)	3.75	1.073

This table demonstrates the formative assessment technique at university level fulfill use one-minute paper criteria/factor at high level ($M=3.76$; $SD=0.81$). In other words majority of respondent were agreed about the use of one-minute paper technique of formative assessment during learning. According to responses, 69% were agreed they learn better when teacher give one minute to ask about what they learned in class ($M=3.78$; $SD=1.05$), 69% were agreed with they always learn better when teacher gives one minute to ask what the main question you learned in this class ($M=3.77$; $SD=1.10$) and 69% were agreed with they learn better when teacher asks what you found useful about today's class ($M=3.75$; $SD=1.07$). Overall students' perceptions reflected higher level of agreement.

- **Portfolio (Factor)**

The ninth factor of students' perceptions about formative assessment techniques was portfolio. The following table shows the calculated data in detail.

Table 10

Students' Perceptions about portfolio of formative assessment techniques at university level (600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
I learn better when my teacher give opportunities to ask questions in class.	25 (4.2)	34 (5.7)	106 (17.7)	262 (43.7)	173 (28.8)	3.87	1.026
When my teacher show examples in class	27 (4.5)	37 (6.2)	101 (16.8)	257 (42.8)	178 (29.7)	3.87	1.050
I always try to examine the logic of the arguments.	31 (5.2)	37 (6.2)	101 (16.8)	241 (40.0)	190 (31.7)	3.87	1.087
I learn better when my teacher engaged students in the selection of some materials.	28 (4.7)	35 (5.8)	105 (17.5)	243 (40.5)	189 (31.5)	3.88	1.064
When my teacher focuses on student's self-improvement rather than comparison with others I always self-motivated.	33 (5.5)	51 (8.5)	94 (15.7)	260 (43.3)	162 (27.0)	3.78	1.102
My teacher has asked us to compile a portfolio(Collection of student's work)							

This table demonstrates the formative assessment technique at university level fulfill portfolio criteria/factor at high level ($M=3.85$; $SD=0.68$). In other words majority of respondent were agreed about the portfolio (collection of students work) during learning. According to responses, 72% were agreed with they learn better when teacher give chances to inquire questions in class ($M = 3.87$; $SD = 1.02$), 72% were agreed with when teacher show examples in class students always try to examine the logic of the arguments ($M=3.87$; $SD=1.05$), 71% were agreed with they learn better when teacher engaged students in the selection of some materials ($M=3.87$; $SD=1.08$) , 72% were agreed with when teacher focuses on student's self-improvement rather than comparison with others they always self-motivated ($M=3.88$; $SD=1.06$) and 70% were agreed with teacher has asked students to compile a portfolio($M=3.78$; $SD=1.10$). Overall students' perceptions reflected higher level of agreement.

- **Appraise good values (Factor)**

The tenth factor of students' perceptions about formative assessment techniques was appraising good values. The following table shows the calculated data in detail.

Table 11

Students' Perceptions about appraise good values of formative assessment techniques at university level (600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
When my teacher shows enthusiasm for the subject matter I always take an active interest in the subject.	25 (4.2)	42 (7.0)	103 (17.2)	245 (40.8)	185 (30.8)	3.87	1.058
When my teacher focuses on quality conversations I always try to focus on problems relating concepts.	31 (5.2)	53 (8.8)	97 (16.2)	245 (40.8)	174 (29.0)	3.80	1.109
When my teacher plan, teach, and assess to promote mastery for all students I relate theoretical ideas to everyday experience.	28 (4.7)	49 (8.2)	101 (16.8)	245 (40.8)	177 (29.5)	3.82	1.087

This table demonstrates the formative assessment technique at university level fulfill appraise good values criteria/factor at high level (M=3.83; SD=0.81). In other words majority of respondent were agreed about appraise good values in students during learning. According to responses, 71% were agreed with when teacher shows enthusiasm for the subject matter students always takes an active interest in the subject (M=3.87; SD=1.05), 69% were agreed with when teacher focuses on quality conversations students always try to focus on problems relating concepts (M=3.80; SD=1.10) and 70% were agreed with when teacher plan, teach, and assess to promote mastery for all students they relate theoretical ideas to everyday experience (M=3.82; SD=1.08). Overall students' perceptions reflected high level of agreement.

- **Story telling (Factor)**

The eleventh factor of students' perceptions about formative assessment techniques was story telling. The following table shows the calculated data in detail.

Table 12

Students' Perceptions about story telling of formative assessment techniques at university level (600)

Items	SD (%)	D (%)	U (%)	A (%)	SA (%)	Mean	Std. Deviation
When my teacher pass on knowledge in a social context I always focus on unrelated parts of the task.	21 (3.5)	52 (8.7)	108 (18.0)	254 (42.3)	165 (27.5)	3.82	1.042
When my teacher teaches ethics, values and cultural norms in class I always reproduced what teacher desire.	19 (3.2)	49 (8.2)	97 (16.2)	259 (43.2)	176 (29.3)	3.87	1.026
When my teacher tells story about a topic I always understand better that topic.	25 (4.2)	29 (4.8)	72 (12.0)	259 (43.2)	215 (35.8)	4.02	1.024

This table demonstrates the formative assessment technique at university level fulfill story telling criteria/factor at high level ($M=3.90$; $SD=0.76$). In other words majority of respondent were agreed about story telling in students during learning. According to responses, 69% were agreed with when teacher pass on knowledge in a social context, students always focus on unrelated parts of the task ($M=3.82$; $SD=1.04$), 72% were agreed with when teacher teaches ethics, values and cultural norms in class students always reproduced what teacher desire ($M=3.87$; $SD=1.02$) and 69% were agreed with when teacher tells story about a topic students always understand better that topic ($M=4.02$; $SD=1.02$). Overall students' perceptions reflected high level of agreement.

Findings and Discussion

Majority of respondents' ($M=3.76$, $SD = 0.71$) perceptions about the formative assessment technique found at high level (Table 4.2). The use of formative assessment is ongoing throughout the academic year and is essential for students' learning processes. It enables the instructor to identify and emphasise each student's unique accomplishments, successes, weaknesses, and deficiencies (Menéndez, et al., 2019). Majority of respondents' ($M=3.65$, $SD = 0.80$) perceptions about the teacher asks questions during students learning was found at high level of agreement (Table 4.3). This research shows that teachers' questions in class help pupils learn and perform better academically. The interactions between teachers and students in the classroom involve a lot of questions, some of which are important components of formative assessment, according to Swathi et al. (2020). In-depth discussion between the instructor and the student might be sparked by a question, which may help the teacher better comprehend the students' worldviews and give them knowledge to help them learn. Most of the participants responded that the multiple choice questions in formative assessment techniques improve student's learning ($M = 3.72$, $SD = 0.65$) at high level (Table 4.4). Multiple-choice questions help pupils learn more effectively and develop their critical thinking skills. This conclusion that written multiple-choice tests make up the majority of formative assessments given by teachers and that they help children learn better is supported by earlier research (Mahendra, 2020). Most of the students perceived that the think pair share technique ($M = 3.73$, $SD = 0.59$) of formative assessment was at high level (Tables 4.5). Think-pair-share techniques had a considerable impact on students' learning and academic achievement, according to earlier research. The application of the method integrates the cognitive and social facets of learning, fostering the growth of thinking and knowledge construction (Agbede, & Ba'aba, 2019). Most of the respondents' ($M = 3.71$, $SD = 0.65$) perceptions about asks students for discussion during class to improve student's learning was at high level (Table 4.6). Discussions that are prompted by teachers help students learn better because they give them the opportunity to process information rather than just absorb it. Students actively participate in the learning process when the teacher calls for a conversation and

exchange their opinions with one another. A class discussion's goal is to encourage students to think critically about the course material. Most of students ($M = 3.77$, $SD = 0.66$) perceived that encourage positive behavior during class to improve learning was at high level. (Table 4.7). Teachers encourage learners to have positive values, which helps them develop and direct their behaviour, beliefs, and attitudes. A significant number of respondents' point of view about the feedback ($M = 3.76$, $SD = 0.62$) in student's learning was at high level (Tables 4.8). Students can alter their learning strategy and evaluate it with the help of this feedback. Learners should always get feedback on the average (the learning activity) during formative assessment. Students receive feedback that informs them of their outcomes as well as new options for acquiring the evaluated competencies (Pla-Campas et al. 2016). When a teacher tells stories in class, students' self-esteem rises, critical thinking skills are improved, ethics are taught, and awareness of culture is imparted. A large number of respondents ($M = 3.76$, $SD = 0.80$) agreed that sharing of personal experience during class to improve student's learning at high level (Table 4.9). When a teacher shares personal stories in class there is a favourable correlation between teaching and learning. In order to distinguish between the key traits of effective, useful feedback and those that are indicative of ineffective, useless information, sharing personal experiences was an essential starting point (Minnoni et al., 2017). Majority of the respondents ($M = 3.76$, $SD = 0.81$) rated their use one-minute paper technique of formative assessment in class was at high level (Tables 4.10). The teacher offers each student a one-minute paper with the prompt, "What did you find useful in today's class?" Students actively participate in the learning process and express their opinions. The instructor only provides students a brief time to describe the key topics in the minute paper because the emphasis is on comprehending. It improves students' learning and academic achievement as well (Angelo & Cross, 1993). This FACT gives useful feedback on how well students comprehend the subject and is highly useful in identifying learners who need further or special attention (Babinčáková, et al., 2020).

Majority of the respondents ($M = 3.85$, $SD = 0.68$) rated portfolio technique of formative assessment were at high level. (Table 4.11). According to research on how students view portfolios as an assessment tool, portfolios can help students become more independent, foster prompt critical thinking, and enhance their scores. Similar findings were made by Harris, Dolan, and Fairbairn (2001), who confirmed the use of portfolios to motivate students. Belanoff (1994) further confirmed that using a portfolio as a method of assessment encouraged students' autonomy and participation. They were able to evaluate their work, select the work they wanted to be evaluated, redefine their work and improve it, take on challenges during the writing process, and seek out friends' opinions. As we can see, assessment is a good thing because it encouraged pupils to grow up and become independent, rather than serving as a way to point out their weaknesses (Muho, & Taraj, 2022). Majority of the students' perceptions ($M = 3.83$, $SD = 0.81$) about appraise good values during class to improve students' learning were found at high level (Table 4.12). To boost learners' learning, the teacher promotes and appraise good values

among students in class. Teachers encourage learners to have positive values, which helps them develop and direct their behaviour, beliefs, and attitudes. A considerable number of the respondents ($M = 3.90$, $SD = 0.76$) perceived that story telling during class improve students' learning at very high level (Table 4.13). Storytelling in the classroom helps students develop their critical thinking abilities and boosts their self-esteem, which improves their learning. Alcantud-Dyaz, et al. (2014) conducted research on the likelihood of using narrative techniques into the curriculum to teach specific subjects. It raises students' levels in a variety of learning abilities, including collaboration, self-discipline, critical thinking, self-management, comprehension, and fluency (Mohamed Salama Eissa, H. (2019).

Conclusions

The university students' perceptions of eleven factors (the teacher asks questions, multiple-choice questions, think-pair-share, asks students to discuss, encourage positive behaviour, feedback, sharing of personal experience, use one-minute paper, portfolio, appraise good values, and storytelling) were reflected in the mean score ($M = 3.76$; $SD = 0.71$), which measures students' perceptions of the role of formative assessment techniques in their academic achievement at the university level. Students are encouraged to study, according to Weurlander et al. (2012), because formative assessment increases teachers' awareness of how students learn, including what they already know and what they still need to learn (Pla-Campas et al. 2016).

It was concluded that perceptions of students regarding the overall impact of formative evaluation methods on students' academic performance and learning is very significant. At the university level, it enhances both academic performance and student learning. When a teacher uses these characteristics in the classroom, both learning and academic accomplishment among the learners improve. In order to make sure that students comprehend the material and continue to be interested in the activity, questions must be asked. It is crucial for fostering students' independence and critical thinking abilities as well as their capacity to accept and analyse information. The relationship between formative assessment strategies and learners' learning and academic success at the university level is generally positive. When a teacher uses various teaching methods, pupil learning and scores immediately improve.

Formative assessment is a grading strategy in which information about a student's progress is dynamically gathered and then effectively applied to encourage student engagement and commitment. The evaluation methodologies described below can be used to determine if formative assessment strategies are effective (i.e., how these methods impact student learning and academic achievement). Formative evaluation is an assessment strategy that keeps the teacher informed about the students' learning progress and shows when the teacher might need to change the way they teach in response to the findings. Students employ formative assessment techniques to collaborate, communicate properly, use resources effectively, actively participate,

and achieve success. Using formative assessment techniques, students are prepared for their upcoming experience and the challenges they will face in real life.

Formative assessment is used before, during, and after class; it must continue to be viewed as a crucial step in the educational process because it helps the evaluated group improve their academic performance by developing their cognitive, linguistic, intrapersonal, and interpersonal skills and broadening the scope of their goals, goals, and goals. The study conclusion revealed that Formative assessment techniques are a progress teaching strategy that may be used at every level of learning. The teacher can plan various activities, and students can take part in them inside or outside of the classroom. Students desire to learn in the healthiest atmosphere possible. Such human interaction can be facilitated by the teacher and have an effect on the students. In general, the body of research on formative assessment points to a shift in colleges' and universities' priorities from teaching to learning. The purpose of classroom evaluation is to raise students' levels of learning. It was concluded that most of the students' response level of agreement with respect to formative assessment technique was at high level of agreement. The respondent are at high level (agreed) about formative assessment techniques. Majority of students agreed that there is a encouraging effect of formative assessment technique on students learning and academic achievement at university level. Students' perceptions show high association between formative assessment technique, students learning and academic achievement at university level.

Recommendations

For the future study following are the recommendations:

- 1- The administration and instructors may work together to create a formative assessment plan that will assist them in improving the quality of their teaching and learning.
- 2- It is advised that university instructors use the study to develop various suitable formative assessment techniques to raise students' levels of learning and achievement.
- 3- Using specific formative assessment methodologies and verified measuring tools, researchers may conduct additional research on how adult foundation skill learners progress from basic to more sophisticated.
- 4- To determine how formative assessment methods affect students' learning and academic accomplishment at the university level, additional qualitative research may be carried out using unstructured side-by-side observations and student interviews.

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