Formative Assessment Practices, University Teachers and Students' Perceptions

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ARTICLE INFO	ABSTRACT
	The present study aims to determine the major differences in student's opinions towards formative assessment across universities. The study also wanted to understand the university teacher's perception and their role in implementing the formative assessment in their classroom and to see the university teacher's perception towards the impact of usefulness of formative assessment. The study used quantitative research design. Data was collected from four hundred students and one hundred teachers from four different universities of Lahore by using simple random sampling technique. An adapted form of survey tools were used to collect information from the study participants. The data was analyzed by using Descriptive analysis, Frequencies, t-test and one-way analysis of variance (ANOVA). Frequencies were used to examine the high and medium perceived statements by the teachers and students. The results reported statistically significant difference in perceptions of students among four universities of Lahore. The Study also presented university teachers perceptions regarding formative assessment. It is suggested that seminars and trainings be held for students and teachers in order to make them aware of assessment and evaluation skills.

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1. Introduction

This is the truth that humans require testing in order to improve their performance, and this necessity is what gave rise to the assessment process. Gordon, Rajagopalan, Gordon, and Rajagopalan (2016) realized that assessment is a significant lever that can either enhance or detract from students' learning. Box, Skoog, and Dabbs (2015) emphasized the importance of peer and self-assessment, stating that these features allow for the scaling among both assessment and learning to worldwide campuses. As cited by Shaikh, Shah, and Mirza (2020) assessing students' performance is an essential component of the teaching and learning process. Several efforts have been undertaken to define assessment. Furthermore, assessment refers to a project or procedure designed to acquire information on a student's or a group of students' attitudes, skills, and knowledge (Gonzales & Aliponga, 2012). Assessment in all of its forms is critical because everything else revolves around it. Assessment is important in every educational system for determining individual disparities in achievement. According to the Economic Survey of Pakistan (2001-02) there has been a growth over time in the examination system corresponding to different stages of schooling during the last three decades. Teaching and assessing student learning are inextricably intertwined, and it is impossible to conceive of either process in isolation. The assessment is helpful to both the instructors and the students.

Formative Assessment is extremely important during the learning process. According to Brink (2017) the primary objective of formative assessment is to assess and promote students' learning during the whole period of learning. To accomplish this, learners' attitudes and motivation must be captured and improved. Formative assessment is a continuous process that accumulates evidence of student learning through both informal and formal techniques and

delivers data also to the teacher and the student. It promotes two-way communication between the student and the teacher, as well as changes in the teacher's methods to match the student's requirements. The learner uses the information to self-assess and improve her or his learning by utilizing the available resources (McMillan & Turner, 2014; Popham, 1999).

Formative assessment attempts to ensure that students' knowledge and abilities are acquired and developed in a productive manner. Formative assessment is also used to determine student needs so that they can be guided toward their intended outcomes. When a student's needs and challenges are discovered, suitable remedial steps are performed to address the issue. The goal is to see if pupils can execute something they couldn't do before after having a learning experience (Yasar, 2017).

Beesley, Clark, Dempsey, and Tweed (2018) analyzed the existing assessment procedures and authentic assessment practices in education, as well as the integration of real-world tasks in classroom assessment. The primary goal of this study was to investigate the obstacles and issues associated with classroom assessment techniques in public secondary schools in Karachi, Pakistan. On the basis of existing evaluation practices, the survey questionnaire was created. The study's findings highlight the fact that existing assessment techniques are based on traditional settings, and there is a need to incorporate other sorts of activities and feedback trends in order to make pupils capable. The study also suggested that there is a need of more studies conducting in Pakistan on the relevant topic.

This study's objective was to investigate the characteristics and implementations of formative evaluation that are utilized at the undergraduate level in educational settings. by collecting the perspectives of educators and students in order to gain a more in-depth understanding of how they comprehend, think about, and make use of formative evaluation. to gain an understanding of the ways in which students can benefit from formative assessment in their learning and the various ways in which instructors implement and use formative assessment in their respective educational settings. The goal of this study was to find out more about, from both the teachers' and the students' points of view, the benefits and qualities of formative evaluation.

2.   Literature Review

Azim and Khan (2012), assessment is a concept that offers an alternative to standard assessment procedures. Practice-based learning is an essential component of education. Life is a continual series of experiences, some of which are positive and some of which are negative, but all of which contribute to a more educated and productive life. Authentic assessment reflects real-world tasks or improves learning through exercises.

Assessment is the process of collecting and sorting information that is the result of deliberate actions. The goal is to draw conclusions about learning and teaching, as well as about a person, by making comparisons based on set criteria. As a result, evaluation is a conscious endeavor that sends signals about the current condition of circumstances. During instruction, assessment is of the utmost importance (Mugweru, 2020). As cited by Mohammad, Lodhi, and Kazi (2017) in their literature in the context of Pakistan, one of the underlying causes of dysfunction in our educational system is the examination/assessment system.

Annual/final exams are the foundation of our educational evaluation system (summative assessment), which is used to determine whether the final output is excellent (pass) or awful. (fail). Our current testing procedure is intended to assess true knowledge rather than intellectual prowess. Although the method by which the completed product will be concluded should be tested should have a correct protocol in place. In other words, during the lesson, we must evaluate the instruction and learning process.

Gordon et al. (2016) performed a study titled Teachers and Students Experiences and Perceptions of Formative Assessment and discovered that the meaning of formative assessment was subjective. The survey revealed that the students who took part in the study were concerned about not comprehending the comments they received and were mostly particularly worried about their marks. Furthermore, unless time was allotted during a session, most students read the remarks they received but did not process them in a way that allowed them to recall them. Formative assessment attempts to increase students' learning and growth in each topic by

assisting them in comprehending the subject's learning goals. Several researchers (Bennett, 2011; Burner, 2016) realize the benefits of formative assessment. The Formative assessment has gotten a lot of attention in recent years, and it's now considered essential for students' learning growth. In addition, formative assessment is a hot topic at educational conferences, a topic for public procurement, and a focus for teacher in-service training (Bennett, 2011).

According to Miniaoui and Kaur (2014), formative assessment is important not just for student performance but also for teachers and administrators who want to create strong connections in their learning environments. In order to better the standard of education, Mohammad et al. (2017) did study to examine the connection between formative assessment and the educational process in Sindh, Pakistan. They also proposed methods to enhance formative assessment practices. According to the findings, formative assessment and teaching and learning are intertwined, and scientific evidence has shown that using effective formative assessment methods results in more effective instructor instruction and better student learning outcomes.

Practical suggestions were provided in light of the findings. Bashir and Afzal (2019) conducted a study and the purpose of this research was to learn about the formative assessment strategies employed by teachers at a public institution in Lahore. According to the study's findings, teachers generally ask questions and provide examples in the classroom, while other strategies for assessing students' learning are generally overlooked. In the classroom, teachers measure pupils' weaker cognitive abilities. According to the findings, instructors should be trained in the use of assessment methods in respective classrooms.

Ounis (2017) aim to investigate educators' opinions of examination in order to identify their opinions, sentiments, and perspectives that shaped their methods of assessment. The study discovered that secondary school tutors had more positive and uplifting perspectives of the role of assessment in enhancing learner scores.

Formative evaluation tools are utilized primarily to differentiate the educational requirements of individual students as well as to modify instructional practices. Important differentiating instructions give instructors the ability to utilize a variety of instructional techniques so that they can cater to the specific educational needs of their students while they are together in the classroom. During this stage of the learning process, teachers have a responsibility to be concerned about their students' levels of self-assurance, knowledge, skills, and competence to achieve the desired outcome of their education. It has been established by anthropologists, social and cognitive psychologists, and other social scientists that children's earlier learning experiences, information, and abilities substantially contribute to the development of their scientific breakthroughs. This has been witnessed and established by these social scientists (Sadler & Reimann, 2018).

Formative assessment is crucial during the learning process. Beesley et al. (2018) argues that the main purpose of summative evaluation is to monitor and improve students' progress throughout the duration of the educational process. This can be achieved by monitoring and enhancing students' dispositions and drive.

2.1. Research Objectives
• To determine whether the major differences in student's opinions towards formative assessment practices across universities.
• To understand the teacher's perception and their role in implementing formative assessment in their classrooms.

2.2. Research Questions
1. What are the major differences in student's opinions towards formative assessment practices across universities?
2. What are the teacher's perception and their role in implementing formative assessment in their classrooms?

2.3. Significance of the study

Findings of the research will be helpful for educators, students, people developing educational curricula, and decision makers. Feedback will be given to both students and instructors as part of the teaching-learning process that involves formative evaluation. It is anticipated that the instructors will be educated on several aspects of perceptions, and as a result, they will work hard to maintain favorable perceptions for evaluation, which will lead to either an enhancement or a refinement of learning. It will be useful in assisting them in enhancing the methodology that they use. Students will be able to benefit from the findings, and if they understand the significance of summative evaluation, they will be able to make appropriate adjustments to their own educational practices. The educators responsible for developing the curriculum will be able to do so using a summative assessment approach, taking into consideration the findings of the research as they work. The administrators will also be able to provide guidance to the instructors regarding the implementation of this strategy in order to enhance the learning process and teaching.

3. Research design

This research was quantitative in nature. Survey questionnaires were used as an instrument to collect data. In addition, a pilot study was carried out to determine how reliable the instrument would be given the current circumstances. The research design can be defined as the collection of methods and procedures that are employed in order to collect and analyze measurements of the variables that are mentioned in the research problem (Obeng, 2020).

3.1. Study Population

In this study, the population was made up of all the students and teachers from Lahore's public and private universities. There are a total of 19 universities that are affiliated with Lahore's public sector, and there are a total of 26 institutions that are affiliated with Lahore's commercial sector.

3.2. Sample and Sampling Technique

One Hundred university teachers and four Hundred students from four universities were chosen through the use of a straightforward random selection methodology.

3.3. Data Collection Tool

After getting permission, Standardized instruments were used for data collection consisted of two Questionnaires for teachers and students. OâÂ Â²Leary (2021) defines 'survey' as the procedure by which a researcher obtains data through the use of a questionnaire.

3.4. Pilot study Results

The reliability was assured after adapting instruments, minor changes were made in the questionnaires such as background information of the participants to make it suitable according to this research. The pilot study helped to detect omissions, mistakes, and ambiguous language that participants might encounter while completing questions. The results of the analysis are listed below. The supplied reliability study for the teacher's questionnaire yielded a total picture of the Cronbach's Alpha level of .853, which was a very high level of reliability. The Cronbach's Alpha level for the students' questionnaire was .764, which is considered acceptable and good.

4. Data Analysis

Methods from descriptive statistics and inferential statistics were used to examine the data. A one-way analysis of variance (ANOVA) was used to see if there was a significant difference in students' perceptions of formative assessment techniques between universities, and to ascertain the usefulness of assessment in the opinions of male and female teachers, a T-test was applied.

4.1. Findings and Conclusions

Table.1 reveals students' current year of study. In Pakistan the total duration of bachelor's degree program is four years, and mostly students who participated on the questionnaire were studying in bachelor's degree programs in their respective universities. Based on the year of study, 40.8% participants were third year students while 30.8% students were fourth year students, second year students accounted for 22.5% while only 6.0% students were from first year.

Table: 1 Institution Wise Distribution of Students

Educational Institute	(N)	%
LCWU	100	25.0
UET	100	25.0
UCP	100	25.0
UOL	100	25.0
Total	400	100.0

Table.2 presents a breakdown by gender of the teacher participants across four universities. The study obtained responses from 100 hundred teachers at four universities. With respect to gender, generally of the teachers were female, at 54.0%, while males accounted for 46.0%. While the total mean of male and female was; M = 1.54, (SD = .501).
Table 2

Table: 2 Gender Wise Distribution of Teachers

Gender	N	%
Male	46	46.0
Female	54	54.0
Total	100	100.0

4.2. Student Perception about Formative Assessment across the Universities

The results indicated a significant difference in perceptions of formative assessment among four different universities, $F(3,396) = 16.376$, $P = .426$. Comparisons of the means using Tukey HSD revealed significant differences between four universities. More specifically, the educational institution UET ($M=2.56, SD=.474$) the educational institution mean was significantly lower than the mean of UOL ($M=2.98, SD=.429$), the LCWU ($M=2.86, SD=.400$) and the fourth university UCP ($M=2.84, SD=.438$). The past study also concluded in which Mugweru (2020) observed in an earlier study that formative assessment is positively evaluated by both students and teachers. They believe that formative assessment offers students and teachers makes recommendations on continuing classroom instruction with the purpose of improving performance and achieving goals. Variations in views of formative assessment, according to Box et al. (2015), are driven by preconceptions about what makes learning beneficial, the structure of feedback between students and teachers, and the overall process of learner marking.

Table: 3 Means, Standard Deviations and One- Way Analysis of Variance (ANOVA) of Educational Institutions

Educational Institution	N	M	SD	F	Sig.	Difference*
UOL	100	2.98	.429	16.376	.000	UOL>LCWU>UCP>UET
LCWU	100	2.86	.400			
UCP	100	2.84	.438			
UET	100	2.56	.474			
Total	**400**	**2.81**	**.461**			

4.3. Gender impact in the Teachers Perception

An independent sample t- test was conducted to compare the formative assessment perceptions for male and female teachers. In table 4.14 shows results, that there were no significant differences ($t =.588$, $df=98$, Sig.2tailed= .558), in mean score for Male ($M=3.23$, $SD=.333$) and Female ($M=3.19$, $SD=.384$), in teachers' perception on usefulness of formative assessment. The significance of Levene's test is .313 that is greater than 0.05 ($p>0.05$) that means equal variances are assumed. There were no significant differences for male and female in teachers' perceptions. This finding is consistent with the findings of Havnes, Smith, Dysthe, and Ludvigsen (2012) who discovered no significant difference in the mean attitude of male and female teachers toward continuous assessment.

Table: 4 T-test for Impact of Gender on Teacher's perception

Gender	N	M	SD	t	df	Sig.(2-tailed)	Difference
Male	46	3.23	.333	.588	98	.558	M=F
Female	54	3.19	.384				

4.4. Teachers' perception and roles regarding Formative Assessment

According to the findings of the research, teachers had favorable opinions regarding formative assessment. Teachers were deeply worried about student performance as refereed by their assessment process. Teachers think that students should be actively involved in the development of learning goals, and that students should have opportunities to reevaluate their comprehension of the topic. Teachers were unanimous in their belief that students should ask questions and provide peer feedback during class. Other research on formative assessment have revealed that teachers believed the ability of students to ask questions and offer peer feedback was one of the most important factors in demonstrating positive development. The research reveals teachers' perspective that formative assessment should be based on student learning. The study found that teachers had varied feelings about the types of methods they used with low mean score as compared to previous categories of questionnaire (M= 2.93). According to Duckor, Castellano, Téllez, Wihardini, and Wilson (2014), formative assessment is important not just for student performance but also for teachers and administrators who want to create strong connections in their learning environments.

Table: 5 University Teachers Perceptions regarding Use of Formative Assessment (M>2.8 or above)

Item No.	Statements	1	2	3	4	M	SD
1	Teachers should offer on-going and appropriate feedback to the students.	1.0	1.0	32.0	Mostly 66.0	3.63	.562
2	I try to understand why my students succeed or fail on an assessment or activity.	1.0	3.0	37.0	58.0	3.55	.626
3	Students need opportunities to re-evaluate their understanding of content.	1.0	2.0	38.0	59.0	3.55	.592
4	Students should ask questions and offer peer feedback during instruction	1.0	5.0	36.0	58.0	3,51	.643
5	I pre-assess skill level or knowledge before beginning a unit or chapter.	0	4.0	45.0	51.0	3.47	.577
6	Students should be actively involved in setting learning criteria.	0	5.0	46.0	49.0	3.44	.592
7	Getting students to review their own work and record their work.	1.0	5.0	47.0	47.0	3.40	.636
8	Students should modify or adapt their learning strategies to meet classroom requirements.	1.0	9.0	41.0	49.0	3.38	.693
9	The teacher should reflect on multiple student data before drawing academic or social conclusions about student progress.	0	5.0	52.0	43.0	3.38	.582

The main objective of implementing formative assessment, according to various scholars, should be to develop techniques that reduce gaps in understanding performance and enhance overall academic results. It is suggested that seminars and trainings be held for students and teachers in order to make them aware of assessment and evaluation skills. The study also suggested that there is also a need for more research on other aspects impacting students' and teachers' perceptions of formative assessment, as this study also included one factor and looked at the impact of gender on teachers' opinions; more factors should be considered in future studies.

5. Conclusions

The study's results showed that formative assessment is preferred as an effective method of classroom assessment by both teachers and students. Students also perceived that teachers should be able to plan different teaching setups and choose suitable learning materials to match the needs of individual students and they should be assessed beyond class work because the world is changing and they must adjust to the realities they meet in their daily lives. In terms of diversity in students' opinions of formative assessment among universities, the results show that students at four different universities have varied perspectives on formative assessment. Students should be questioned about real-world challenges they may be encountering, and seminars or lectures regarding key topics they may have encountered in their life should be presented to them. Besides this, teachers believe that students should be actively involved in the formative assessment process, whether it is group projects or individual tasks, and that they should actively participate and ask questions about the topic, as well as provide proper feedback. The past study also concluded in which Mugweru (2020) observed in an earlier study that formative assessment is positively evaluated by both students and teachers. They believe that formative assessment offers students and teachers with feedback on ongoing learning and teaching with the intention of optimizing learning and goal attainment.

5.1. Limitation of the study

Because the sample size was limited to university-level participants from four universities in Lahore, general results could not be compared to other students.

5.2. Recommendations for Future Research

The study recommended on the basis of results that certain participants in the study didn't know about formative assessment, whereas individuals from education departments only knew what formative assessments is? The study recommends that more studies should be conducted to have a representation of formative assessment in urban and rural educational institutions. Other research methodologies, like as observation, experimental design, and longitudinal studies, are required to obtain comprehensive knowledge about formative assessment. There is also a need for more research on other aspects impacting students' and teachers' perceptions of formative assessment, as this study also included one factor and looked at the impact of gender on teachers' opinions; more factors should be considered in future studies. So seminars and trainings be held for students and teachers in order to make them aware of assessment and evaluation skills. There is also a need for more research on other aspects impacting students' and teachers' perceptions of formative assessment,

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