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Article:	Assessment Practices and Assessment Skills of Teachers at Secondary School Level: Factorability and Associative Perspective
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ABSTRACT

Assessment skills are an essential part of the assessment in the classroom for effective learning. These skills influence on practices of teachers for classroom assessment. This study seeks to evaluate the perceived competence and assessment practices of secondary school teachers regarding assessment. Quantitative research was employed to gather data from the participants. The sample was selected through multistage sampling, where at the first stage, schools were chosen through ratio sampling and at a later stage, the teachers from each school were selected through convenient sampling. Only hundred (N=100) teacher at the secondary school level were selected from public and private schools. The data was collected by visiting the schools through survey questionnaire. The data was analyzed using inferential statistics, including association between variables and mean differences. The results indicate a positive relationship between assessment skills and assessment practices. The study concluded that teachers should know about assessment skills and assessment practices to evaluate the students learning in the classroom for better academic results. It is recommended that school directors should arrange a training workshop for the teachers to increase their knowledge and skills in assessment practices in the classroom.

Keywords: Assessment Skills; Practices; Classroom; Secondary School; Teachers

Introduction:

The focus of the study is on assessment practices and assessment skills of the teachers in the schools. Assessment skills are supportive for the systematic examination regarding a pass or failed the students. Similarly, such types of assessment practices and assessment skills are the defining part of collecting information to improve the student's learning ability (Ketabi & Ketabi, 2014; Mutlu, 2020). Assessment of the students is a vital part of teaching since it enables instructors to fully understand the capabilities of their students and to develop appropriate instructional strategies that positively influence academic learning (McMillan, 2001; Mills, 2022). Previous studies highlighted several issues related to educators/instructors and their classroom assessment practices. These include inadequate knowledge of fundamental assessment and measurement concepts (Bichay-Awadalla & Bulotsky-Shearer, 2022; Daniel & King, 1998; Stiggins et al., 1986), inadequate training in assessment (Stiggins et al., 1986) and failure of educators to correctly utilize the guidelines for the learners in assessment courses (Di Liberto et al., 2022).

Understanding teachers' assessment practices and how assessments are suitable for students is essential. However, assessment perceptions and their experience in implementing different assessment methods to evaluate student learning outcomes. Additionally, it is crucial to explore their thought processes as they develop and use assessment practices, interpret student work, and assign grades. As educators' assessment skills and practice are both crucial factors for addressing student learning needs, instruction, and assessment practices (Guskey, 2020; Kapunda, 2022; Nenty et al., 2021). This raises several timely issues related to understanding teachers' assessment methods, and instructors adhere to quality assessment methods to cater to the learning needs of students. From the above scientific discussion, it is found that assessment practices and skills are necessary to evaluate students for excellent outcomes.

Student Assessment in Pakistan

The Punjab Education Assessment System (PEAS), an administrative and technical infrastructure system created by the Government of Punjab's School Education Department, has been utilized since 2002 to monitor and assess students' learning outcomes. By providing a comprehensive framework, PEAS has been proven to be an effective tool for improving educational outcomes in the state. Assessing the learning results of students is regarded as the critical element to enhance high-quality knowledge thinking about the above features that are crucial concentrate on helping teachers, academic managers, plan producers, education practitioners and establishments to utilize assessment that is educational evaluation as means of enhancing the scope, scale, effects, and high quality of education system that permits all pupils at school (Ishaq et al., 2020). To find and adopt a shared sight for ensuring enhancement when you look at the excellent education through institutionalization associated with Provincial Education Assessment System in Punjab Based (PEASPB) upon a dissemination framework, a targeted communication strategy is followed which proposes to reach out to the audiences which are targeted primary interaction for schools, school councils, parents and community, District Education Authorities (DEAs), Teachers Training Institutions (TTIs), Curriculum, Textbooks and Subject related Organization & Policy Makers through the targeted distribution of message It is wished that this work shall act as the fundamental for informing and engaging stakeholders that are appropriate the talents and weaknesses of pupils discovering interpreting a reorganizing result of PEAS assessment as a drumbeat of communications and tasks for

various audiences and all going an easy method this is undoubtedly, long improve the quality of education in Punjab.

Study Significance

This study investigates educators' classroom assessment techniques for student evaluation in Lahore, Pakistan. This research could provide valuable insight into teachers' practices and needs for assessment at the secondary school level. The data gathered in this study could be used to evaluate the effectiveness of classroom assessment techniques educators use to measure student learning. The practical significance of the study findings is that they could contribute to the existing knowledge on assessment and practice in the generalized context of the Lahore education system and serve as a foundation for teacher training and professional development in the application of classroom assessments.

Research Objectives

The current study has verified these targets objectives for the know practices of assessment and assessment skills from different schools.

- Examine assessment practice that teachers employ to evaluate students learning.
- Examine teachers' perceived assessment skills in the students learning.
- To identify relationship between assessment practices and assessment skill.
- To identify role of demographic variable assessment practice and assessment skill.

Research Questions

This research study has answered these few questions, which are derived from the objectives of the study, and these are given below.

- What assessment practice are used by teachers when they evaluate students' learning?
- What kind of assessment skills are perceived by teachers?
- What is the relationship between assessment practice and assessment skills?
- What role does demographic variable play in assessment practice and assessment skill?

Literature Review

The effectiveness of teaching practices can have a positive impact on student outcomes in the classroom. Studies conducted by Glover et al. (2023) and Jansen and Möller (2022) have outlined some of these aspects. However, Asvio (2022) noted that just teacher experience does not guarantee students learning. To create an effective learning environment, teachers must consider student needs, as well as classroom and school background factors (Sajjad et al., 2022). A thorough assessment can be a critical factor in the learning process, as it encourages furthering knowledge and evaluates the results achieved (Janke et al., 2022). Classroom assessment refers to various practices and approaches educators use to evaluate student learning. These methods include the construction and grading of tests and teachers' beliefs about evaluation, their perceptions of teaching and learning, and the use of evaluation results (Popham, 1999).

Classroom assessments developed and administered by instructors can be used as formative assessments of student learning. These assessments help instructors track student progress and provide feedback. Standardized examinations are national assessments developed by examination experts to make high-stakes decisions such as selecting and placing students in higher education (Townsend, 2022). These tests are typically summative in nature. Issues were particularly prominent regarding the assessment of performance, interpretation of standardized test results and grading processes. Educators engaged in behaviors such as teaching test

materials, increasing test time, providing hints, and changing student responses (Williams-Mcbean, 2022). Additionally, instructors needed help interpreting standardized test results and communicating those results (Adom et al., 2020). Many educators incorporated non-academic elements such as effort, attitude and motivation into their grades (Hemi et al., 2023) while failing to apply weights in grading to reflect the varying importance of different assessment components. Despite these difficulties, most educators felt they possessed sufficient knowledge on the matter, citing prior experiences and college coursework as sources of understanding (Adom et al., 2020).

Classroom Assessments Practices

Teachers prepare students for future endeavors, and their competencies and knowledge in classroom assessment practices are critical for the modern education perspective. Classroom assessment is a crucial facet of teaching and learning, as it allows teachers to assess and evaluate student learning outcomes. Similarly, teachers should be well-versed in the basics of assessment to ensure the efficient delivery of educational services. Teachers face considerable challenges when upgrading their assessment methods and making informed choices. This process is complicated by the clash between teachers' beliefs about evaluations, personal values, and external pressures they must consider (AERA, 2018; APA, 1974; Moss, 2020).

Despite decades of attempts to improve knowledge and understanding of testing and measurement procedures, teachers still need more support to fully achieve their aspirations regarding teaching and assessment practices. This is evidenced by studies that have shown that teachers continue to struggle in adhering to recommended classroom assessment practices and have an inadequate knowledge base regarding testing and measurement procedures (AERA, 2018; Campbell & Evans, 2000).

Teachers' Perceptions about Assessment Training

Teachers' proficiency in assessment and evaluation practices is essential for improving teaching and learning. Nonetheless, it has been observed that teachers still need to be satisfied with the assessment training they receive during their pre-service training. Moreover, teachers feel the assessment training does not provide them with the appropriate techniques needed for classroom settings but focuses on methods and practices related to large-scale tests and their interpretations (Brookhart & Brookhart, 2013; Dixon, 2016). Such as, Weir and Charlon (2020) sought to gain an understanding of their training in tertiary-level foreign language education. The primary focus was on language testing and assessment courses, intending to explore the content, methodology, materials used and student perceptions of the methods. Findings from this investigation indicated that although essential aspects of teaching theory and practice were adequately addressed, educational measurement and students' classroom assessment practices.

Although the evidence suggests that teachers need to be given the necessary training in assessment, research shows that they do not necessarily use the techniques they learned in measurement classes. A study conducted with pre-service teachers who had just finished a course in measurement revealed (Dyer et al., 2020). The researchers had assumed that having recently completed a course on size, the pre-service teachers would demonstrate knowledge of best practices. However, this assumption still needs to be met as the teachers did not adhere to many assessment principles they had learned. This makes it difficult to understand how best to ensure teachers recognize and use appropriate evaluation methods when assessing students (Barnes & Fives, 2020).

Assessment in the Educational System in Pakistan

The National Assessment System (NAS) was created to monitor and evaluate student performance. This system seeks to represent students' achievement in key curriculum areas by collecting data at regular intervals and at selected quality levels. The assessment results can be used to identify strengths and weaknesses within curricular areas by aggregating individual determine how successful students are in their formal education. The potency of the NAS varies according to the relevance of the signs chosen, the high quality of information collected, and the authenticity of analyses (Ahmad & Hussain, 2014). Examination and learning assessment harvest information on pupil accomplishment levels and use it to improve evaluation evaluations in education. The examination information is employed by educators for grading students and enhancing the quality of their instruction. Mastering assessment data, on the other hand, can be used by plan, producers and planners to improve this educational school system (Khattak, 2012).

The Evaluation and Assessment System in Pakistan

Evaluation is an essential tool for assessing the performance of both systems and students. Likewise, the importance of assessing students based on their ability; regardless, there are no set criteria in practice. For example, the English language assessment in Pakistan is often subjective and typically only measures a student's knowledge of the language rather than their performance within it (Ahmad et al., 2013). Hussain et al. (2019) suggests that language instructors should use formative and summative evaluation forms. Therefore, teachers should identify areas of strength and weakness to provide helpful feedback to the students.

Furthermore, skilled teachers should do an item evaluation to find the legitimacy and reliability associated with the test. First and foremost, examinations lack reliability and validity (Rehmani, 2012). Similarly, Rind and Malik (2019) additionally observe that testing is certainly not seen as an element that is undoubtedly important and is considered quite distinct from learning and teaching along with training. When it comes to credibility and reliability of assessment procedures, pinpoints the quality and reliability of assessment papers when it comes to the protection of curriculum, choice of paper setters, and lack of education or else for the report setters and examiners, marking system and preparation of outcomes, are believed questionable (Qureshi & Zehra, 2020). Moreover, Khan and Saeed (2009) additionally points out those textbook materials tend to be prescribed by the teacher for his or her students becoming learnt and explained term by sentence and word by phrase and confined to just one textbook. Due to this approach to learning and teaching, students become passive recipients of prescribed knowledge, that is the content of textbooks.

The long run sustainability depends upon on the integration of the national and regional assessment centers to ensure cross-learning and implementation of rehearse this is certainly well facilitated. Faisal et al. (2012) suggested that performance and determine crucial places for intervention that will result in improvement into the quality and effectiveness associated with training system (Jacob & Rothstein, 2016). Similarly, the quality and effectiveness are related with few factors of national and regional assessment centers. Such as, information policy, monitoring standards, achievements, directing teachers at education level.

“Informing Policy: the extent to which geography and gender are linked to inequality in student performance. Monitoring Standards: how well the curricula are translated into knowledge and skills; Identifying correlates of achievement: the

principal determinants of student performance and how resource allocation might be re-directed. Directing Teachers' Efforts and Raising Students' Achievements: Assisting teachers to use data to improve student performance." (Faisal et al., 2012; Matters & Toon, 2012).

From the abovementioned scientific literature review, it is hypothesized that the student assessment system at the provincial level in Pakistan should be one factor related to assessment skills and practices. As the study focuses on schools in Lahore therefore, we focus on Punjab Education Assessment System (PEAS).

Research Design

The study used a quantitative research design to construct data and provide a descriptive overview of the characteristics of a group of teachers. Survey research was used as an effective tool to collect the data from the respondents (Creswell, 2012). Positivistic approach was the most appropriate research paradigm and mostly used in the educational research (Creswell, 1999). Similarly, the scale of assessment practices was adapted from the studies of the following researchers (Cecil et al., 2009; Hussain et al., 2019; Popham, 1999), and assessment skills scale were selected from the scientific work of (Zhang & Burry-Stock, 2003).

Population

The total population of the study were the secondary school teachers (male & female) who were enrolled in private and public school's 9th and 10th grade level in Lahore city. Total population of school is 31,392 (Pakistan Education Statistics 2017-2018).

Sampling and Sampling Technique

Convenience sampling technique was used to collect data from the population and such type of sampling technique is accessible and willing to take part in the research. For this study, 100 schools' teachers were selected from 25 schools as the sample population.

Data Analysis and Key Findings

Quantitative data analysis was used to collect data and also analyzed the data through a statistical package for social sciences (SPSS Version-21). Furthermore, the study used descriptive and inferential statistics to conclude the results. The study measures the association between assessment practices and assessment skills.

Table 1

Presenting percentage of demographic variables about training on assessment (N=100)

Statement	Responses Frequency		Responses Percentage	
	Yes	No	Yes	No
I took a course dedicated assessment	64	19	77.1%	22.9%
The assessment included in a course covering	51	32	61.4%	38.6%
I took more than one subject dedicated	73	10	88%	12%

Objective 2. The objective was to level perceived level of assessment skills of teachers.

Table 2

Factor of Assessment Skills (N=100)

Factors	Mean	SD	MPI
F1	22.5542	6.76839	3.22
F2	17.0120	3.95861	.68
F3	19.3494	5.93138	3.22
F4	23.3373	6.33857	3.33
F5	6.4699	2.10885	3.23
F6	5.9880	2.60625	2.99

Table 2 provides a summary of the mean, standard deviation, and mean performance index (MPI) scores for six assessment factors related to assessment practices and skills at the secondary school level. The assessment factors are labelled F1 skills (assessment skills), F2 (knowledge of students' work), F3 (ability to design appropriate assessments), F4 (ability to interpret assessment data), F5 (collaborative assessment practices) and F6 (use of technology for assessment). The results show that the highest MPI associated with F4 is the ability to interpret assessment data, with a score of 3.33. This was followed by F1 skills: assessment skills, with a score of 3.22, and then by F3: the ability to design appropriate assessments, with a score of 3.22. The lowest MPI was associated with F6: use of technology for assessment, with a score of 2.99. Overall, this table suggests that the highest performance levels in assessing secondary school-level students are associated with one's ability to interpret data and design appropriate assessments. On the other hand, the lowest levels of performance are associated with using technology for

Objective 3. The objective was perceived level of Assessment Practices of teachers.

Table 3

Perceived Level of Assessment Practices of Teachers (N=100)

Factors	Mean	SD	MPI
F1 Practices	22.6463	6.74101	3.23
F2	17.0000	4.34208	3.4
F3	20.4458	5.40156	3.40
F4	23.1807	6.92318	3.31
F5	6.0964	2.23942	3.04
F6	6.1446	2.42010	3.07

This table 3 shows the results of a study that measured the mean, standard deviation (SD), and the MPI (Max Performance Index) of six different factors related to assessment practices. The factors were labelled F1 through F6. F1 had a mean of 22.6463, an SD of 6.74101, and an MPI of 3.23; F2 had a mean of 17.00, an SD of 4.34208, and an MPI of 3.4; F3 had a mean of 20.4458, an SD of 5.40156, and an MPI of 3.40; F4 had a mean of 23.1807, an SD of 6.92318, and an MPI of 3.31; F5 had a mean of 6.0964, an SD of 2.23942, and an MPI of 3.04; and F6 had a mean of 6.1446, an SD of 2.42010, and an MPI of 3.07. This data can be used to compare different assessment practices' performance and identify areas that may need improvement or further exploration.

Objective 4. Mean difference between scores of skills and type of Institution.

Table 4

Variables	Mean	SD	df	t- value	Sig.
Private	89.4138	25.74779	80	-3.089	.003
Public	107.1667	17.51687			

The table 4 above shows the mean and standard deviation (SD) of assessment practices and assessment skills at the secondary school level when comparing private and public schools. The results indicate that students in private schools have an average assessment practice score of 89.4, with a SD of 25.7, while students in public schools have an average assessment practice score of 107.2, with a SD of 17.5. The t-value for the difference between the two groups was -3.089, which is statistically significant ($p < .003$). This indicates that students in public schools have significantly higher assessment practice scores than private school students.

Objective 5. Mean difference between scores of skills and educational background.

Table 5

Variables	Mean	SD	F- value	Sig.
Certificate diploma	94.9474	2.97964	3.418	.021
BS/ BA Degree	81.9091	22.87005		
Master's degree	103.3214	20.36710		
Other please specify	97.2857	27.95169		

This table 5 provides descriptive statistics for four different types of educational credentials: Certificate Diploma, BS/BA Degree, Master's Degree, and Other (please specify). The columns represent each credential's mean, standard deviation, F-value, and significance (sig.). The Certificate Diploma credential has a mean of 94.9474, a standard deviation of 2.97964, an F-value of 3.418, and a significance of .021. The BS/BA Degree has a mean of 81.9091 and a standard deviation of 22.87005; however, it does not have an F-value or significance since these values only apply when comparing two or more groups. The Master's degree has a mean of 103.3214 and a standard deviation of 20.36710; again, it does not have an F-value or significance since these values only apply when comparing two or more groups. Finally, the Other (please specify) credential has a mean of 97.2857 and a standard deviation of 27.95169; it does not have an F-value or significance since these values are only applicable when comparing two or more groups.

Objective 6. Mean difference between scores of skills and teaching experience.

Table 6

Variables	Mean	SD	F- value	Sig.
Last 5 years to 10 years	104.0882	23.05510	4.482	.014
Less than 5 years	88.0909	26.01814		
Only 1 year	88.2963	22.73901		

The table 6 indicate that there is no mean difference on the basis of teaching experience ($M=94.7108$); $SD=24.75861$) and with score on perceived level of skills ($f\text{- value} = 4.482$), ($\text{sig.} = .014$).

Objective 7. Mean difference between scores of skills and classes do you teach.

Table 7

Variables	Mean	SD	df	t-value	sig
Class 9	90.3448	25.20668	81	-1.180	.722
Class 10	97.0556	24.42734			

Table 7 shows the relationship between assessment practices and assessment skills at the secondary school level. It shows the mean and standard deviation (SD) of assessment practices and assessment skills for classes 9 and 10. The t-value of -1.180 and a significant value of .722 indicate no significant difference between the two classes regarding their assessment practice and assessment skills. This suggests that assessment practices and assessment skills for both classes are similar.

Objective 8. Mean difference between scores of skills and subjects do you teach.

Table 8

Variables	Mean	SD	df	t-value	sig
Science	92.3261	26.02055	81	-.978	.238
Art	97.6757	23.10009			

The table 8 shows the mean and standard deviation of the assessment practices in Science and Art at the secondary school level. The Science mean was 92.3261, with a standard deviation of 26.02055, and the Art mean was 97.6757, with a standard deviation of 23.10009. The t-value for the two variables was -.978, indicating that there is not a significant difference between the two variables. The p-value for the comparison was .238, indicating that the difference between the two means is not statistically significant. This suggests that there is no strong relationship between assessment practices and skills in secondary school students at this level.

Objective 9. correlation between perceived skills and practices.

Table 9

Variables	Mean	SD	p-value	Sig.
Skills	94.7108	24.75861	.901**	.000
Practices	95.5422	24.90974		

This table 9 outlines the results of a study that measured the relationship between assessment practices and assessment skills at the secondary school level. The mean score for assessment skills was 94.7108, with a standard deviation of 24.75861. The mean score for assessment practices was 95.5422, with a standard deviation of 24.90974. The p-value for the two variables was .901**, which is significant at the .000 level. This indicates that there is a strong relationship between assessment practices and assessment skills at the secondary school level.

Key Results

The results show that teachers have very less awareness about their teaching as shown in table 8 there is no mean difference in the teaching of teachers belonging to different subject areas. From the results we can depict that teacher lack knowledge on teaching of teaching skills

and therefore lack in practice. Moreover table 9 shows that there are teachers with appropriate teaching skills yet they do not bring them into practice.

Discussion

The analysis was restricted and hence the findings may be applicable to the teacher's assessment practices and skills in the schools. The study found that relationship between assessment practices and assessment skills at the secondary school level has been an area of research for some time. Williams-Mcbean (2022) have found that assessment practices are closely linked to student learning outcomes and that assessment skills are essential for ensuring that students are effectively assessed and gain the necessary knowledge from their assessments. Research has also shown that assessment practices can positively impact the development of assessment skills in secondary school students, with improved assessment practices leading to enhanced assessment skills. For example, a study of Jensen et al. (2019) found that when teachers used assessment practices such as formative and summative assessments, it led to an increase in students' self-regulation, motivation, and self-efficacy in assessment tasks. Similarly, Aslam and Khan (2021) originate that the use of rubrics, exemplars, and feedback have positive influence on the secondary school students assessment practices.

These findings suggest a strong relationship between assessment practices and assessment skills at the secondary school level, with effective assessment practices leading to increased student assessment skills. As such, teachers need to ensure that variety of assessment practices use in their classrooms to ensure that their students gain the necessary knowledge from their assessments. Furthermore, teachers should provide clear and consistent feedback on reviews and guidance on how to improve their assessment skills. In doing so, teachers can ensure that their students have the necessary skills to evaluate their learning and understand the assessment criteria.

Conclusion

After conducting the research, the study concluded that classroom assessment skills and practices are essential for the schoolteachers' academic practices. Because classroom assessment skills and practices are needed for different aspects and stages of teaching. The research found that assessment has turned into power; this is undoubtedly an operating method for the following educationalist throughout the globe. Assessment practice has a measured and identified assessment factor in bringing reform and enhancement in the education system at the school level. This study was conducted to know the perceptions of educators-related classroom evaluation methods in schools. This research also found that capable trainers' course assessment skills were linked to the instructor's practices or qualities on the academic level, teaching understanding, and instruction assessment standard. The study gives a solution to the problem that teachers should know about assessment skills and practices to evaluate the students well for the following classes. The government should focus on the education department to improve the teachers' level of assessment for more creative assessment skill in the future.

Recommendations

- Finding and conclusions of the study lead the researcher to the following recommendations:
- This study statistically measured the classroom assessment skills and practices among secondary teachers, so it is recommended that government and educational institutions

conduct training services in their institutes for the teachers to overcome their problems. Such results can make the teachers related classroom assessments without confusion, mental stress and anxiety.

- Studies may be replicated in other districts or cities to find cross-cultural results.
- It is suggested that further research focuses on identifying relations between classroom assessment skills and practices at college and university levels.
- The Ministry of Education and school administrators should guarantee that trainers who have been accredited need to take supplementary classes in assessment to increase their capability and usage of suitable course assessment methods.
- School directors should arrange a training workshop for the teachers to increase their knowledge and skills in assessment practices in the classroom.

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