
Investigating Gender Differences in Classroom Assessment Literacy of College Teachers

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ABSTRACT

The main objective of the study was to investigate the classroom assessment literacy of college teachers. The study was quantitative. A survey method was used in this study. The data were collected from 251 government college teachers from Gujranwala city using cluster sampling technique. Teachers' classroom assessment literacy test was adapted to collect the data. It was originally developed by Mertler (2003). It covers seven standards for measuring teachers' competence in educational assessment of students. It includes CAAM, DAAM, ASRI, URMD, URAG, CAR, and RUMA. The test has 35 MCQs type items. It was piloted, and the Cronbach Alpha reliability coefficient value was found to be 0.81. The findings of the study revealed that the majority of the teachers had classroom assessment literacy at low level. It tinted the need to develop related training sessions and programs to enhance the level of teachers' classroom assessment literacy.

Keywords: Classroom Assessment Literacy, College Teachers

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INTRODUCTION:

One of the major aims of education reform in Pakistan is to improve education according to international standards. Teacher quality is a powerful predictor of student performance. The principal elements that make teaching and learning possible and attainable are the teachers, the learners, teaching material, assessment and a learning environment (Yamtim, 2014). In all these elements the most important element is the teacher (Darling-Hammond, 2000; Rowe and Hill, 1998; Wright, Horn and Sanders, 1997). To assess the learners teachers are key persons. There are various ways to assess students' learning at college that includes the assignments, paper and pencil test, coursework, presentation and projects etc. A teacher misrepresents the quality of education if he/she has the insufficient awareness of assessment (Herrera &Macías, 2015).A useful starting point for promoting assessment-directed learning is identifying assessment literacy components having influence on teachers' assessment practices (Xu & Brown, 2016).A teacher should literate in assessment to meet up the requirements of 21st century. Teachers will be able to evaluate the strength and weakness of students in the classroom and will motivate those (Taras, 2005).

Classroom assessment yields significant data for teachers concerning students' learning, which leads to more development and enhancement of teachers' instruction and reconsideration of curriculum

content to superior serve the students' needs, enabling them to learn competently and effectively (Qualters, 2001). Teachers who have ample background knowledge regarding assessment are capable to integrate testing into learning as well as to use an instructional arrangement that is appropriate for students (McMillan, 2007). Assessment Literacy is defined as "the knowledge about how to assess what students know and can do, interpret the results of these assessments, and apply these results to improve student learning and program effectiveness" (Webb, 2002). It is the set of beliefs, knowledge, and practices about assessment that lead a teacher, administrator, policymaker, or students and their families to use assessment to improve student learning and achievement. Classroom assessment literacy is too imperative for teachers' personal professional development (Lorente-Catalan & Kirk, 2015; Huang & He, 2016). Research shows that teachers have assessment literacy issues in their professional improvement (Deneen & Brown, 2016; Gong, 2017; Deeley 2017; Looney & Harris, 2017).

Seven Standards on Teachers' Competence on the Educational Assessment of Students (STCEAS) were made due to importance of teachers' assessment literacy. American Federation of Teachers (AFT), National Education Association (NEA) and National Council on Measurement in Education (NCME)" mutually develop the standards in 1990. Many studies have shown teachers' assessment literacy (Plake and Impara, 1997; Mertler , 2000; Campbell, Murphy, and Holt, 2002; Zhang 2003; Schaff, 2006; Alkharusi and AlMusawai, 2011; Davidheiser, 2013; Yamtim 2014; Coleman, 2015; Mohammed and Ali, 2016, Shams A Jahan, 2019). All these studies have worked on standards. Research studies have shown that teachers' assessment literacy have a great importance in process of teaching and learning.

In Pakistan, a petite research work has been done to investigate the practice of teachers (Rehmani, 2003; Shah & Afzaal, 2004; Shirazi, 2004; Khan, 2011; Ahmed & Malik, 2011) but hardly there is some research on investigating teachers' assessment literacy and teachers' classroom assessment literacy at college level has hardly ever been the subject of the study in Pakistan. The objectives of the present study were to:

- Investigate the college teachers' assessment literacy
- Compare male and female college teachers' assessment literacy in different standards of CAL

METHODOLOGY

The study was quantitative. A survey method was used in this study. The data were collected from 251 government college teachers from Gujranwala city using cluster sampling technique. For the collection of data Teachers' Classroom Assessment Literacy test was used as an instrument of research that was developed by the Mertler (2003). In this test there are the seven standards to for the determination of the assessment of the teachers. These standards were prepared by three organizations that are AFT, NCME, & NEA in 1990. These standards were as follows: Choosing Appropriate Assessment Methods (CAAM), Development of Appropriate Assessment Methods (DAAM), Administration, Scoring and Results Interpretation (ASRI), Using Results for Making Decisions (URMD), Using Results of Assessment for Grading (URAG), Communication of Assessment Results (CAR), and Recognizing Unethical Methods of Assessment (RUMA). The test has 35 MCQs type items.

The researcher modified the instrument (Mertler, 2003) to make it suitable for educational framework in Pakistan. The test instrument was validated through opinion of experts within the field of educational assessment. After the pilot testing the instrument on a sample of 30 teachers, the reliability of the instrument was calculated through Cronbach Alpha. The details of reliability of the instrument are shown in the Table 01.

Table 1:

Alpha reliability on Total score of college teachers on CALT

Alpha	Items
.810	35

Table 1 show the instrument was reliable to use. The Cronbach Alpha reliability coefficient, value was found to be .810

Results

By using the descriptive (mean and standard deviation) and inferential statistics (independent sample t-test) data were analyzed. The details of data analysis and interpretations are given below.

Table 2: *Total score of college teachers on CALT*

Total Score	n	Mean	SD
	251	11.33	2.863

Table 2 shows the level of classroom assessment literacy of 251 college teachers with mean value (M=11.33) and standard deviation (SD=2.863).

Table 3

Comparison of male and female College Teachers' in seven standards of CAL

CAL standards	Gender	n	\bar{x}	SD	df	t	Sig.
CAAM	Male	130	1.54	0.9	249	-7.29	.000
	Female	121	2.5	1.14			
DAAM	Male	130	1.5	1.1	249	-8.37	.000
	Female	121	2.7	1.13			
ASRI	Male	130	1.6	0.96	249	-8.02	.980
	Female	121	1.58	0.82			
URMD	Male	130	1.64	1.01	249	-1.57	.177
	Female	121	1.8	1.05			
URAG	Male	130	1.5	0.95	249	-1.69	.092
	Female	121	1.69	0.86			
CAR	Male	130	1.38	0.92	249	-1.82	.070
	Female	121	1.6	0.98			
RUMA	Male	130	1.4	0.862	249	-3.30	.001
	Female	121	1.8	1.23			

Table 3 shows the comparison of male and female teachers' in seven standards of teachers' CAL. Table shows that there is a clear difference between male and female teachers in Choosing Appropriate

Assessment Methods (CAAM), Development of Appropriate Assessment Methods (DAAM) and Recognizing Unethical Methods of Assessment (RUMA) as significant value i.e. p value is less than 0.05. There is no difference between male and female teachers in Administration, Scoring and Results Interpretation (ASRI) and Use Results for Making Decisions (URMD) as significant value i.e. p value is less than 0.05. There is a slightly difference between Use Results of Assessment for Giving Grades (URAG) and Communication of Assessment Results (CAR).

DISCUSSION

The study shows that the teachers have not adequate classroom assessment literacy, and these findings are also according to the literature (Gavin, 2015; Looney, 2017). There are also mixed results in literature in analysis of CAL test therefore it is very difficult to draw the clear line between lowest and highest performance of teachers on any of the Standards for Teacher Competence in Educational Assessment of Students. Harlen (2004) and Mussaway, (2009) found that teachers have high performance on Choosing Appropriate Assessment Methods (CAAM, Standard 1) even as Shah (2004) found that it is very difficult in favor of teachers to CAAM. Quilter (2000); Brookhart (2003); Aboidullah (2009); Alkharusi (2011); Davidheiser (2013) found the lower performance on Development of Appropriate Assessment Methods (DAAM, Standard 2). Brookhart (2003) found that teachers have low performance on Administration, Scoring and Results Interpretation (ASRI, Standard 3) at the same time as Plake (1991) and Plake (1993) found that teachers had some knowledge on this standard. Zhang (2003) found low score on Use Results for Making Decisions (URMD, Standard 4) as Schaff (2006) found highest score on it. Plake (1993), Brookhart (2001), Mertler (2003), Schaff (2006) & Yamtim (2014) found low score on Use Results of Assessment for Giving Grades (URAG, Standard 5) while Quilter (2000) found highest score on this Standard. Plake (1991); Campbell, Mussaway (2009); Johannesen(2013); & Alkharusi (2011) found low performance on Communication of Assessment Results (CAR, Standard 6). Herrera(2007) found low performance on Recognizing Unethical Methods of Assessment (RUMA, Standard 7) while Pierce(2002) found highest on this standard.

All the discussed findings put emphasis on that it is needed to do further research in this direction and also context precise studies to get better conclusions. The information that comes from the results of such surveys, teachers may be given feedback on which areas they are most vulnerable to in the complete process of assessment. Assessment training workshops and separate assessment standards were recommended for the respondents and assessment studies in Pakistan.

Suggestions and Recommendations

- On the basis of finding suggestions and recommendations were put forward.
- It was found that majority of college teachers have low level of assessment literacy skills. Therefore, it is necessitating developing assessment literacy training program/module and a series of workshops lectures to boost knowledge of college teacher in assessment. The present study was quantitative in nature.
- Further research may be qualitative in nature that might be consisting of focus group discussions, observations, and in-depth interviews to assess the teachers' assessment literacy at higher education.
- It is also recommended for the teachers that they should not restrict themselves to the traditional methods of assessment and may also take into consideration the alternative assessment methods like portfolio assessment.

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