Teachers' Self-perceived Skills as the function of Gender and Teaching Experiences in the Classroom Assessment: A study in High Schools of South West Shewa Zone, Ethiopia.

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## Abstract

This study was conducted to assess teachers' perceptions of classroom assessment as the function of gender and teaching experiences. To this end, the researchers employed a cross-sectional survey design collecting a survey data from 197 teachers selected from seven high schools using Zhang and Burry-Stock's (2003) modified assessment practice inventory questionnaire and an observation checklist developed by the researchers. The findings of the study revealed that there was a statistically significant gender difference only in communicating assessment results; t ( $_{173}$ ) = -6.557, p < .05. Also, there were statistically significant differences across service years in terms of constructing test items, F (2, 172) = 2907.04, p < .05; analyzing test results and test revisions, F (2, 172) = 121.401, p < .05; and communicating assessment results, F (2, 172) = 98.840, p < .05. Both in the self-perceived assessment and classroom observation results, female teachers' were found better than male teachers in communicating assessment results. Finally, conclusions and recommendations were forwarded based on the results of this study.

**Keywords:** Teachers self-perceived skills, Classroom assessment, Gender, Teaching Experiences, and Ethiopia

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## **INTRODUCTION**

#### Background of the study

Classroom assessment is a very significant and emerging issue in recent years. Hence in this 21<sup>st</sup> century, educational systems across the world are undergoing changes to move beyond the ways they operated at the beginning of the 20<sup>th</sup> century, with traditional instructional and assessment skills that commonly ask students to work individually on exams that require them to recall facts or respond to pre-formulated problems within the narrow boundaries of individual school (Jon, Elizabeth & Daniel, 2011). In this regard, teaching is a complex process that requires teachers' skills in measurement and assessment. Such skills may include: test planning and construction; grading; interpretation of test results; use of assessment results to inform teaching and learning; and communicating results to relevant stakeholders. Teachers are predominantly responsible for evaluating student learning process; their instructional and classroom assessment skills and practices are a means by which the education system is enhanced and defined (Nenty, Adedoyin, Odili, & Major, 2007).

Moreover, teachers play an integral role in student assessment, for this reason, their abilities and skills in classroom assessment remain critical. A study describes teacher abilities as a cohesive set of teacher characteristics, knowledge, skills, and attitudes needed for effective performance in various teaching contexts (Tigelaar, et al, 2004)

With regard to teachers' assessment skills, literature clearly indicates that in the case of western countries, students are asked to use their cognitive development, academic knowledge, and language skills to read, comprehend, synthesize, analyze, compare, relate, articulate, write, evaluate and more. Teachers' have sills in using various assessment techniques and this builds the foundation for alternative forms of assessment (Herrera, Murry & Cabral, 2007).

Whereas, in Africa, the quality of teachers' classroom assessment skills is poor in many ways and the problems that have been identified include the use of poorly focused questions, a predominance of questions that require short answers involving factual knowledge, the evocation of responses that require repetition rather than reflection, and a lack of procedures designed to develop students' higher-order cognitive skills (Thomas & Vincent, 2003).

A study conducted in Oman about teachers' self-perceived assessment skills found that teachers indicated skillfulness in traditional assessment techniques with no significant differences found on teacher's gender and years of teaching experience, but there is significant difference found on communicating assessment results with respect to gender (Alsarimi, 2000).

On the other hand, in relation to teachers self-perceived skillfulness in classroom assessment techniques, female teachers reported on average a higher level of self-perceived assessment skills in communicating assessment results and writing test items than male teachers, and teachers with more than 10 years of teaching experience reported on average higher levels of self-perceived skillfulness in constructing test items, analyzing test items, test revisions and instructional improvement, communicating assessment results, using performance assessment, and grading than both teachers with 1 to 5 years of teaching experience and teachers with 6 to 10 years of teaching experience, studies showed teaching experience increases teachers self-perceived assessment skills (Hussain, 2011 & McMillan, 2004). This clearly indicates that there is a growing concern about teachers' classroom assessment skills and hence the current study focused on teachers' self-perceived skills as the function of gender and teaching experiences in the classroom assessment in South West Show Zone High Schools in Ethiopia.

## Statement of the problem

As Ethiopian Ministry of education stated that even though Ethiopia has made substantial efforts to widen access, ensure enrolment and improve attendance; the efforts to achieve quality of education have significantly lagged behind. This is evident not only from the poor achievement levels of students, but also from the poor quality of assessment taking place in schools (MOE, 2011). Many scholars agree that a concern with the education quality immediately gives rise to the issue of assessment and to improve the quality of education there should be quality classroom assessment with various techniques of formative and summative assessments. This is because assessment provides a foundation for making sound evaluative judgments about students' learning progress in particular and about the effectiveness of the whole education system in general (McMillan, 2004). It is therefore considering the skills of teachers' in classroom assessment can give direction as to what has to be done.

But in this domain, very few studies were conducted in Ethiopia, for example a study about the role of assessment in curriculum practice and enhancement of learning at Jimma University (Fisseha, 2010) and also instructors' classroom assessment practices as a function of training background and teaching experience in Deberemarkos University (Abatihun, 2013). However, to the researchers' knowledge, no studies were conducted so far that examines teachers' self-perceived assessment skills as the function of gender and teaching experiences in the classroom assessment in Ethiopian secondary schools context. This study is therefore, designed to investigate teachers' selfperceived skills in classroom assessment.

Therefore, this study answers the following basic research questions.

- To what degree male and female teachers' significantly differ in their self-perceived assessment skills?
- To what extent teachers' self-perceived assessment skills vary with teaching experience?

## **Objectives of the Study**

- To examine teachers' self-perceived assessment skills as a function of gender.
- To determine whether there are significant differences in teachers' self-perceived assessment skills across teaching experiences.

## Significance of the Study

This research is thought to be significant on this arena; the results of this study can assist secondary school teachers, instructors of teachers' education colleges (teacher educators) and Universities, curriculum developers and policy makers in relation to educational assessment in Ethiopia. The finding of this research can serve as a baseline to develop training manual on classroom assessment to give training for teachers' so as to update their skills, challenges and practices in classroom assessment. Providing training for teachers in how to assess students is important and believed that training would improve the quality of education (Jere, 2000). Thus, the study in this area can inform the design of the training program. So, this study is significant for Ethiopian government in educational area to identify the gap in classroom assessment and to design training that can fill the gap.

## **Delimitation of the Study**

Geographically, this study was carried out in the high schools of South West Shewa Zone. In this study the target population included teachers from high schools in the specified zone. With regard to its conceptual scope, this study was delimited to teachers' self-perceived skills as the function of gender and teaching experiences in the classroom assessment.

## **Research Design**

The primary purpose of this study was to assess teachers' self- perceived assessment skills in classroom assessment. To accomplish the desired objectives, this study employed a cross-sectional survey design. This research design was seen to be the most desirable because the study tried to describe the current situation about teachers' self-perceived skills in classroom assessment by collecting data from sampled participants.

## **Research Site and Population**

This study was conducted in South West Shewa Zone, which is one of the 17 Zones found in Oromia Regional State, Ethiopia, one of the nine ethnic divisions and the largest state in terms of population. South West Shewa Zone contains 11 rural Weredas and 1 reform town (Weliso). Weliso town is by now serving as an administrative center of the Zone. The population of this study was secondary school teachers' in the zone. This zone was selected for two reasons. Primarily, it is one of the catchment areas of Jimma University. Secondly, the researcher from his experience of teaching in the specified zone observed inconsistent assessment techniques and this highly initiated the researcher to select this zone for this study purpose. The zone has fourteen (14) high schools which are located in eleven (11) rural Weredas and in one reform town.

## Sample and Sampling Techniques

As above mentioned, South West Shewa Zone is organized in to 11 rural Weredas and one reform town. By considering the reform town as a center of the zone, the Weredas and hence the schools are geographically dispersed to different corners. As a result, the researchers decided to use cluster sampling technique in order to manage the study and to select schools that represent the zone for this study purpose.

From South West Zone, those Weredas containing only one high school such as Weliso, Bacho, Ilu, Ameya and DawoWeredas were represented by Dilala, Yehbret Fire, Teji, Ameya and Busa High Schools, respectively. But, since Wonci Wereda has two high schools namely Chitu High School and Darian high school, Chitu high school was taken by simple random sampling techniques. As a whole, when we compute the percentage of sample schools in relation to the total 14 secondary schools in South West Shewa Zone it becomes 50%.

In order to determine a representative sample size for this study and draw a sample from the population, a standard formula developed by (Kurtz, 1983) was applied. The researchers decided to utilize this formula because it allows obtaining maximum sample size, heterogeneity or variation sampling and used by other researchers also (Wassie, 2009). The estimate of the population (p) was assumed to be 50% (.5), the maximum allowable error (e) was assumed to be 5% = .05, the standard normal value corresponding to the desired level of confidence (z), or a confidence interval of 95%, was assumed (z = 1.96). Using this formula, the calculated sample is 197.

In order to specify the representative sample size from each school, the researchers used stratification on gender bases. In line with the research questions, to see variation on teachers' self-perceived assessment skills as a function of gender the researchers decided to include all the female teachers' in the study since their number is few. Regarding the number of male teachers from each school, first the proportion of each school was determined based on the number of teaching staff they have and sample size computed by using the formula and then participant selection was done by simple random technique. The population of each school and the number of participants from each school is indicated in table one below.

		Popul	ation siz	ze	Samp	le size				
Ν	Name of the schools	Μ	F	Т	Μ	%	F	%	Т	%
1	Ameya High School	57	8	65	24	12.2%	8	4.1%	32	16.2%
2	Busa High School	47	1	48	22	11.2%	1	0.5%	23	11.7%
3	Chitu High School	42	6	48	17	8.6%	6	3.1%	23	11.7%
4	Dilala High School	28	5	33	11	5.6%	5	2.5%	16	8.1%
5	GeresuDuki High School	95	13	108	40	20.3%	13	6.6%	53	26.9%
6	Teji High school	37	9	46	13	6.6%	9	4.6%	22	11.2%
7	Yehbret Fire High school	47	10	57	18	9.1%	10	5%	28	14.2%
Tot	al	353	52	405	145	73.6%	52	26.4%	197	100%

Table 1:	Distribution	of Schools,	With Po	pulation a	and Sample Size
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#### **Research Instruments**

Assessment Practice Inventory (API) designed by Zhang and Burry-Stock (2003) was adapted to measure teachers' self- perceived skills and practices in classroom assessment. The instrument consists of different subscales each of which describes assessment skills and assessment practices in classroom assessment. Teachers' were asked to respond to items on skill scale which was designed to measure teachers'' self-perceived assessment skills with its scale points ranging from 1 (not at all skilled), 2 (a little skilled ), 3 (somewhat skilled ), 4 (skilled ) to 5 (very skilled ). By conducting pilot testing, the Cronbach alpha reliability coefficients were calculated and hence it was 0.84. In addition, based on literature classroom observation checklist were developed and used by the researchers' for conducting classroom observation for triangulation of the self-report finding.

#### **Data Collection**

The data was collected from seven sampled high schools. In each school four days were used to distribute instruments and collect the necessary information. The first day was used to introduce the purpose of the study to the directors, teachers and to obtain general information about schools. Three days were used for distribution and collection of questionnaires from subjects. The adjusted items through pilot study were administered to 197 subjects of the selected high schools. Therefore, the researchers personally administered the questionnaire to the research participants. After sampled teachers' responded to questionnaires, it was collected. Out of 197 questionnaires distributed 175 (88.8%) that is from 145 male teachers' involved in the study 127 filled the questionnaire properly and returned it and out of 52 female teachers 48 of them filled it properly and returned questionnaire.

#### **Ethical Considerations**

Research permission was obtained from the Jimma University after approval by the University Research Board. Then the Education office of South West Shewa Zone, the selected city and Wereda administration education officers were communicated. The approval letters from district education offices were obtained and presented to school directors before facing respondents to begun questionnaire administration. Finally, the research participants were asked to give their informed consent prior looking for their responses. They were informed that information obtained from them would be only for the research purpose.

#### **Data Analysis**

Before analyzing the collected data effective data entry tasks were done and the analysis tasks were performed with the help of SPSS Windows 20. Accordingly, the data were processed using descriptive and inferential statistics on the basis of their appropriateness for answering the research questions. Independent sample t-test was employed to see whether there was statistical significant gender difference in self-perceived assessment skills. One way ANOVA was also employed to see whether there was statistical significant mean difference in self-perceived assessment skills across service years. Descriptive statistics like frequency and percentages were used to describe and summarize respondents' demographic characteristics. The alpha value for test of significance was set at 0.05 levels.

## RESULTS

#### **Demographic Characteristics of Respondents**

The analysis of teachers demographic characteristics, which included gender, teaching experience and their department yielded varying results as illustrated in Table 2 below.

Table 2: Demographic	Characteristics of the	sample across the S	tudy Variables (N=175)

Variable		Ν	%
Sex	Male	127	73%
	Female	48	27%
Teaching experience	1-5 years	45	26%
	6-10 years	60	34 %
	>10 years	70	40%

Gender disparity is significantly higher among the respondents. Besides, the analysis reveals differences among the participants in their teaching experience. Most of the participants (60%) are less experienced in teaching or their teaching experiences are ten years and below. In this regard, 45 (26%) of the participants' teaching experience ranges from 1-5 years, 60 (34%) of them have taught for 6 to 10 years and the remaining 70 teachers (40 %) have taught over 10 years.

Table 3: General Summary of Descriptive Statistics for Teachers' Self-Perceived Assessment

## Skills by Gender

	Descriptive statistics							
Variables	Sex	N	Mean	Standard deviation	t			
Constructing test items	Male	127	3.2146	.76423	392			
	Female	48	3.2656	.78408				
Analyzing test results & test revisions	Male	127	2.0171	.93502	.197			
	Female	48	1.9861	.91212				
Communicating assessment results	Male	127	2.421	.91813	-6.55*			
	Female	48	3.416	.83369				
Using performance assessment	Male	127	2.022	.62618	.355			
	Female	48	1.985	.61055				
Grading	Male	127	3.3740	.87733	.612			
-	Female	48	3.2813	.93914				

(\*p < 0.05).

The results of analysis by mean values and standard deviations for the five categories or dimensions of self-perceived assessment skills by gender indicated in Table 3 above showed that the mean values of male and female teachers' were more or less closer to each other in their self-perceived assessment skills in constructing test items (M = 3.2146, SD = .76423 and M = 3.2656, SD = .78408) respectively; analyzing test results and test revisions (M = 2.0171, SD = .93502 and M = 1.9861, SD = .91212); using performance assessment (M = 2.022, SD = .62618 and M = 1.985, SD = .61055) and

grading (M = 3.3740, SD = .87733 and M = 3.2813, SD = .93914). Whereas, the result revealed that the mean values of male and female teachers differ in their self-perceived assessment skills in communicating assessment results (M = 2.421, SD = .91813 and M = 3.416, SD = .83369) respectively with female teachers' receiving higher mean values than male teachers'. The result also revealed that there was statistically significant gender difference in self-perceived assessment skills in communicating assessment results,  $t(_{173}) = -6.55$ , p < .05. On the other hand, results indicated in the same table exhibited no significant gender difference in self-perceived assessment skills in constructing test items,  $t(_{173}) = -.392$ , p > .05; analyzing test results and test revisions ( $_{173}$ ) = .197, p >.05; using performance assessment,  $t(_{173}) = .355$ , p > .05 and in grading ( $_{173}$ ) = .612, p > .05.

Moreover, the result from classroom observation conducted by the researchers also clearly indicated that female teachers' are better than male teachers' in communicating assessment result to their students.

Table 4: General Summary of Descriptive Statistics for Teach	ers' Self-Perceived Assessment

Variables	Group	Ν	Mean	St. Deviation	F
Constructing test items	1	45	2.564	.10191	2907.04*
-	2	60	2.650	.11914	
	3	70	4.152	.15477	
Analyzing test results & test revisions	1	45	1.407	.22348	121.401*
	2	60	1.450	.18232	
	3	70	2.874	.91482	
Communicating assessment results	1	45	1.656	.54170	98.840*
	2	60	2.558	.60430	
	3	70	3.478	.81843	
Using performance assessment	1	45	1.698	.48275	56.689*
	2	60	1.690	.46768	
	3	70	2.489	.49938	
Grading	1	45	2.856	.51811	60.783*
-	2	60	2.900	.50254	
	3	70	4.050	.88935	

(In column two numbers refers to: 1 - teachers with 1-5 service years, 2 - teachers with 6-10 service years and 3 - teachers with greater than 10 service years, \*P significant at p < 0.05).

In constructing test items, the summary of mean values and standard deviations indicated in Table 4 above revealed that the mean value of teachers' with 1-5 service years (M = 2.564, SD = .10191) was lower than teachers with greater than 10 years services(M = 4.152, SD = .15477), the mean value of teachers' with 6-10 service years (M = 2.650, SD = .11914) was lower than teachers' with greater than 10 years services(M = 4.152, SD = .15477), the service years (M = 4.152, SD = .15477) and the mean value of teachers' with 1-5 service years was closer to teachers' with 6-10 service years.

In analyzing test results and test revisions, the mean value of teachers' with 1-5 service years (M = 1.407, SD = .22348) was lower than teachers with greater than 10 years services (M = 2.874, SD = .91482), the mean value of teachers' with 6-10 service years (M = 1.450, SD = .18232) was lower than teachers' with greater than 10 years services (M = 2.874, SD = .91482) and that of teachers' with 1-5 service years was closer to teachers' with 6-10 service years.

In communicating assessment results, descriptive statistics indicated in Table 4, above revealed that the mean value of teachers with 1-5 service years (M = 1.656, SD = .54170) was lower than both teachers' with 6-10 service years (M = 2.558, SD = .60430) and greater than 10 service years (M = 3.478, SD = .81843).

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In using performance assessment, the mean value of teachers' with 1-5 service years (M = 1.698, SD = .48275) was lower than teachers with greater than 10 years services(M = 2.489, SD = .49938), the mean value of teachers' with 6-10 service years (M = 1.690, SD = .46768) was again lower than teachers' with greater than 10 years services(M = 2.489, SD = .46768) and the mean value of teachers' with 2-5 service years to teachers' with 6-10 service years.

Finally, the result revealed that the mean value of teachers' with 1-5 service years (M = 2.856, SD = .51811) was lower than teachers with greater than 10 years services(M = 4.050, SD = .88935), the mean value of teachers' with 6-10 service years (M = 2.900, SD = .50254) was lower than teachers' with greater than 10 years services(M = 4.050, SD = .88935) and the mean value of teachers' with 1-5 service years was closer to teachers' with 6-10 service years in grading.

As shown above in the Table 4, the result about teachers' self-perceived assessment skills in constructing test items across service years, revealed that there was significant difference at p < .05 level for the three conditions [F(2, 172) = 2907.041, p < 0.05]. Post hoc comparisons using Scheffe's test was used to identify between which groups significant mean differences appeared.

In this study, in order to compare significant mean differences, Scheffe's procedure was used because: 1) it is appropriate to be used when the numbers of participants in the group to be compared are not equal. 2) It is the most popular of the post hoc procedures, the most flexible, and the most conservative and corrects alpha for all pair-wise or simple comparisons of means and for all complex comparisons (contrasts of more than two means at a time) of means as well. 3) It is very robust due to the fact that it requires the same assumptions as the t test. 4) It is very conservative and ensures that the chance of type I error (the chance of wrongly accepting differences between means as significant) is not inflated that is controls chance of making any type-I errors at 5% (Gravetter & Wallnau, 2009).

## Table 5: Results of Post Hoc Comparison for Teachers Self-Perceived Assessment Skills in

Service Year	Service Year	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
(I)	(J)	(I-J)			Lower Bound	Upper Bound
1-5	6-10	08611	.02581	.078	1499	0224
	>10	-1.58790*	.02501	.000	-1.6497	-1.5261
6-10	1-5	.08611	.02581	.078	.0224	.1499
	>10	-1.50179*	.02303	.000	-1.5587	-1.4449

#### **Constructing Test Items across Service Years**

(\* The mean difference is significant at 0.05 levels).

Post hoc comparisons using Scheffe's HSD test indicated in Table 5 above showed that significant difference appeared between teachers having 1-5 service years and those with greater than 10 service years; between teachers having 6-10 service years and teachers having greater than 10 service years in constructing test items. Finally, post hoc comparison indicates no significant difference between teachers having 1-5 and 6-10 service years in constructing test items.

Moreover, the result of one way ANOVA analysis indicated in Table 4 revealed that there was significant difference in teachers' self-perceived assessment skills in analyzing test results and test revisions across service years at p < .05 level for the three conditions [F(2, 172) = 121.401, p < 0.05].

#### Table 6: Results of Post Hoc Comparison for Teachers Self-Perceived Assessment Skills in

Analyzing Test Results and Test Revisions across Service Years.

Service Year	Service Year	Mean Difference	Std. Error	Sig.	95% Confidence	Interval
(I)	(J)	(I-J)			Lower Bound	Upper Bound
1-5	6-10	04259	.11831	.937	3347	.2495
	>10	-1.46640*	.11463	.000	-1.7494	-1.1834
6-10	1-5	.04259	.11831	.937	2495	.3347
	>10	-1.42381*	.10555	.000	-1.6844	-1.1632

(\* The mean difference is significant at the 0.05 level).

Post hoc comparisons using Scheffe's HSD test in Table 6 above indicated that significant difference existed between teachers having 1-5 service years and teachers with greater than 10 service years; between teachers having 6-10 service years and teachers having greater than 10 service years in analyzing test results and test revisions. Post hoc comparison also indicates no significant difference between teachers having 1-5 and 6-10 service years in self-perceived assessment skills in analyzing test results and test revisions.

# Table 7: Results of Post Hoc Comparison for Teachers Self-Perceived Assessment Skills in

Service Years	Service	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
(I)	Years (J)	(I-J)			Lower Bound	Upper Bound
1-5	6-10	90278 <sup>*</sup>	.13506	.000	-1.2363	5693
	>10	-1.82302*	.13086	.000	-2.1461	-1.4999
6-10	1-5	$.90278^{*}$	.13506	.000	.5693	1.2363
	>10	92024*	.12049	.000	-1.2178	6227

#### **Communicating Assessment Results across Service Years**

(\* The mean difference is significant at the 0.05 level).

Scheffe's post hoc test showed the existence of difference between teachers having 1-5 service years, 6-10 service years and with greater than 10 service years in communicating assessment results. Generally, post hoc comparison indicates significant difference between teachers having 1-5, 6-10 and greater than 10 service years or among the three groups in their self-perceived skillfulness in communicating assessment results.

Additionally, there was significant difference in teachers' self-perceived assessment skills in using performance assessment across service years at p < .05 level for the three conditions [F(2, 172) = 56.689, p < 0.05] as indicated in Table 4.

## Table 8: Results of Post Hoc Comparison for Teachers' Self-Perceived Assessment Skills in

Service Years	Service Years (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
(I)					Lower Bound	Upper Bound
1-5	6-10	.00794	.09553	.997	2280	.2438
	>10	79138 <sup>*</sup>	.09256	.000	-1.0199	5628
6-10	1-5	00794	.09553	.997	2438	.2280
	>10	79932 <sup>*</sup>	.08523	.000	-1.0098	5889

(\* The mean difference is significant at the 0.05 level).

In the above table, Post hoc comparisons using Scheffe's HSD test showed that significance difference was observed between teachers with 1-5 service years and with greater than 10 service years; between those with 6-10 service years and with greater than 10 service years in using performance assessment. Post hoc comparison also revealed no significant difference between teachers having 1-5 and 6-10 service years in their self-perceived assessment skills in using performance assessment.

# Table 9: Results of Post Hoc Comparison for Teachers' Self-Perceived Assessment Skills in

## Grading across Service Years

Service Years	Service Years (J)	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
(I)		(I-J)			Lower Bound	Upper Bound
1-5	6-10	04444	.13557	.948	3792	.2903
6-10	>10 1-5	-1.19444 <sup>*</sup> .04444	.13135 .13557	.000 .948	-1.5188 2903	8701 .3792
	>10	$-1.15000^{*}$	.12095	.000	-1.4486	8514

(\* The mean difference is significant at the 0.05 level).

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Post hoc comparisons using Scheffe's HSD test indicated that significant difference was observed between teachers having 1-5 service years and with greater than 10 service years; between teachers having 6-10 service years and with greater than 10 service years in grading. In this regard, post hoc comparison indicates no significant difference between teachers having 1-5 and 6-10 service years in their self-perceived skillfulness in grading.

Precisely, it suggest that when teachers' reach greater than 10 service years, their self-perceived skillfulness in constructing test items, analyzing test results and test revisions, using performance assessment and grading increase but their self-perceived skillfulness in communicating assessment results increase as their service years increases from 1-5 to 6-10 and from 6-10 to service years greater than 10. However, it should be noted that no significant differences appeared between teacher with 1-5 and 6-10 service years in their self-perceived skillfulness for all sub dimensions.

#### DISCUSSION

#### Teachers' self-perceived assessment skills as a function of gender

The statistical procedure, which was employed to examine gender difference in teachers' selfperceived assessment skills showed significant difference in communicating assessment results;  $t_{(173)}$ = -6.55, p < 0.05 in which female teachers (M = 3.416, SD = 0.83369) had greater mean score than male teachers (M = 2.421, SD = 0.91813). Whereas, no statistically significant gender differences in constructing test items;  $t_{(173)} = -0.392$ , p > 0.05, analyzing test results and test revisions;  $t_{(173)} = 0.197$ , p > 0.05, using performance assessment; t ( $_{173}$ ) = 0.355, p > 0.05 and grading;  $t_{(173)} = 0.612$ , p > 0.05.

Therefore, the findings of this study showed that male and female teachers' significantly differ in their self-perceived assessment skills in communicating assessment results but no significant differences were observed between male and female teachers' in their self-perceived assessment skills in constructing test items, analyzing test results and test revisions, using performance assessment and grading.

The above results of this study are in line with the previous study which found that female teachers reported on average a higher level of self-perceived skillfulness in communicating assessment results and the absence of statistically significant gender differences in teachers' self-perceived assessment skills in analyzing test results and test revisions, using performance assessment, and grading (Hussain, 2011). The present study revealed the absence of gender difference in teachers' self-perceived assessment skills in writing test items which is in incongruity with the previous study which reported the presence of statistically significant gender difference in teachers' self-perceived assessment skills in writing test items or in constructing achievement tests (Hussain, 2011).

On the other hand, the findings of the present study directly mirrored the previous study which reported that teachers indicated skillfulness in constructing test items with no significant differences based on their gender and teachers' self-perceived assessment skills in analyzing test results and test revisions, communicating assessment results, using performance assessment, and grading as a function of gender is the same as the findings of present study (Alsarimi, 2000).

Along parallel lines, the present study received supports from the previous study which reported that female teachers perceived themselves to be more skillful in communicating assessment results than male teachers and the absence of significant differences between male and female teachers in their self-perceived assessment skills in using performance assessment and grading in the same way as the finding of the present study (Alkarusi, 2011). The difference between the present study and this former study lies in male and female teachers' self-perceived skillfulness in constructing test items and analyzing test results and test revisions. The present study revealed the absence of significant differences between male and female teachers in these two dimensions but the previous study

indicated significant differences, with male teachers perceived to be more skillful in constructing test items and analyzing test results than female teachers (Alkarusi, 2011).

The results of the present study might be related to the differential skills of female teachers in communicating assessment results. For that matter, female teachers' showed self-perceived skillfulness in communicating assessment results than male teachers. Another possible reason might be related to the self-conception (self-image) of female teachers is that; most female teachers' may believe that they can communicate assessment results to students and parents. Such feelings may be because of the involvement of female teachers in child growing activities in home and other related social affairs in the community than male teachers'.

#### Teachers' self-perceived assessment skills across teaching experiences

A one-way analysis of variance revealed that there were statistically significant differences across teaching experience in constructing test items, F(2, 172) = 2907.04, p < 0.05; analyzing test results and test revisions, F(2, 172) = 121.401, p < 0.05; communicating assessment results, F(2, 172) = 98.840, p < 0.05; using performance assessment, F(2, 172) = 56.689, p < 0.05; and grading, F(2, 172) = 60.783, p < 0.05.

The findings that teachers' differ statistically in their self-perceived assessment skills in constructing test items, analyzing test results and test revisions, communicating assessment results, using performance assessment and grading as a function of their service years are consistent with previous researches in the area (Alkarusi, 2011 & Hussain, 2011). They indicated that teachers with more than 10 years of teaching experience reported on average higher levels of self-perceived skillfulness in constructing test items, analyzing test items and test revisions, communicating assessment results, using performance assessment, and grading than both teachers with 1-5 years of teaching experience and teachers with 6-10 years of teaching experience as found in the present study.

Results of the current study showed that most experienced teachers indicated highest selfperceived skillfulness than less experienced teachers. Therefore, the current study results highlight the importance of teaching experience in that, assessment skills might best be mastered through practice and classroom experience. This study indicated that as teaching experience of teacher's increases, their self-perceived assessment skills tend to increase and hence, matches with the conclusion of studies done by (Alkarusi, 2011 & Hussain, 2011).

The results of the present study revealed that there appeared to be no significant difference between teachers of 1 - 5 years of teaching experience and those with 6-10 years of teaching with regard to perceived skillfulness in using assessment activities except in communicating assessment results hence, classroom assessment professional development might need to be integrated into school district's professional development plans in order to cope up with this gap (Kathy, 2009).

Generally, the findings of the present study implied the role of teaching experiences in increasing teachers' confidence in their self-perceived assessment skills in constructing test items, analyzing test results and test revisions, communicating assessment results, using performance assessment and grading. For the researchers the result convey the message that as teaching experience increases, teachers self-perceived assessment skills tend to increase. In line with this, previous research findings such as indicated that teaching experience has a value in increasing teachers' perceived skillfulness in all categories of assessment skills and their perceived level becomes higher for those who had measurement training and high service years (Zhang &Burry-Stock, 2003).

# CONCLUSIONS AND RECOMMENDATIONS

The following conclusions were drawn based on the findings:

There were gender differences in teachers' self-perceived assessment skills in communicating assessment results. Female teachers' self-perceived assessment skills in communicating assessment results were on average higher than male teachers indicating female teachers' are better than male teachers in communicating assessment results. To this regard, the gender difference observed in communicating assessment results in which female teachers' are better than male teachers, might be because of their better communication or verbalization skills, self-confidence, self-efficacy, self-concept or image, roles in family and etc. But this issue needs further investigation to arrive at conclusion.

Furthermore, there were significant differences among teachers' across service years in their self-perceived assessment skills in constructing test items, analyzing test results and test revisions, communicating assessment results, using performance assessment and grading. In relation to constructing test items, analyzing test results and test revisions, using performance assessment and grading dimensions as teachers' teaching experience becomes above 10 years their perceived skillfulness increases. With regard to communicating assessment results, as teachers' service year's increases their perceived skillfulness also increases.

Based on the finding of the study, the following recommendations were forwarded:

- In order to develop self-perceived assessment skillfulness of teachers with 10 and below service years, designing classroom assessment professional development in line with teachers' assessment standards and integrating into secondary school teachers' professional development manual by Ministry of education and regional education bureau seems necessary.
- As quality improvement has given a central priority of education, special training program for teachers now on jobs about issues in classroom assessment that may orient them with the current needs of education practices to be designed and offered by Ministry of education, regional education bureau and Non-government organizations working in the area of education.
- The school directors have to facilitate experience sharing program so that male and female teachers' learn from each other.

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