# Challenges in Assessment Methods and Practices across Departments by Secondary School Teachers in the South West Shoa Zone, Ethiopia 

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#### Abstract

This study was conducted to assess the most widely used assessment methods and practices across departments and the challenges that hinder high school teachers' classroom assessment. To this end, it employed descriptive survey design. Data were collected from 197 teachers' by using questionnaire adapted from Zhang and Burry-Stock (2003) assessment practice inventory, and some open-ended items developed to measure challenges. The data was analyzed using quantitative data analysis methods. Moreover, the findings regarding challenges in classroom assessment practices from the qualitative open-ended questions were analyzed and presented by content analysis using words and sentences. The result indicated that teachers mostly use traditional assessment methods than alternative assessment. It also revealed that there were statistically significant differences across departments in constructing test items, $F(2,172)=190.849, p<.05$, communicating assessment results, $F(2,172)$ $=208.963, p<.05$, and grading, $F(2,172)=63.935, p<.05$. In contrast, no statistically significant differences were found across departments in analyzing test results and test revisions and using performance assessment practices. Furthermore, teachers' attitude and belief, shortage of time, lack of resources, assessment training gap and large class size were major identified challenges. Eventually, the researchers would like to suggest that teachers should focus on using the alternative forms of assessment than traditional assessment methods.


Keywords: Challenges, Practices, Alternative forms of Assessment, Traditional Assessment, and Secondary School Teachers.

## Introduction

Assessment is used to improve teaching and learning and is crucial to ensure the quality of education. Assessment can contribute to enhancing the quality of education if appropriate decisions and measures are taken based on the information revealed through assessment. According to UNESCO (1990), assessment is a key component-- and a toolkit for effective teaching and learning. Therefore, regular, reliable and timely assessment is important to improve learning and enhance quality education. Assessment is the process of collecting information about the knowledge, attitude, or skills of the learner or group of learners and therefore helps to judge the quality of an individual's work or performance (Greaney, 2001). The acquisition of useful knowledge, reasoning ability, skills, and values that can be seen through classroom assessment was assigned a central position in judgments about the quality of education, following the Declaration of Education for All (UNESCO, 1990).
If the assessment is to be part of teaching, the utilization of different assessment methods should be taken as crucial. According to Zhang and burry-stock (2003), teachers in language and social studies used paper-pencil tests more often than did Natural sciences and mathematics teachers. There was no significant difference noticed among Teachers in languages, natural sciences and mathematics, and social sciences in analyzing tests, revising tests, and improving instruction based on the assessment. Besides, the finding

[^0]indicated that natural sciences, mathematics and language teachers reported more frequent use of assessment activities in communicating assessment results and grading than did social-sciences teachers.

Moreover, it has been explained that traditional assessment is inadequate as it cannot effectively assess students for a full range of educational goals and instructional objectives such as students' conceptual understanding, higher-order thinking and creativity, prob-lem-solving ability, and communication skills. Hence, the students' assessment should be based on multiple techniques that provoke the current national and global needs. It should be more harmonized and seen as a continuous and ongoing process that involves examining and observing learner's behaviors, listening to their ideas, and developing questions to promote conceptual understanding. This aspect is based on constructivism which is a key learning theory underpinning contemporary thinking on how people learn (Tilya, 2012).

The primary assessment method recommended by most scholars as more valid and reliable means of measuring and facilitating learning progress is classroom assessment with a variety of assessment techniques, but teachers were limited to few methods (Ioan-nou-Georgiou \& Pavlou, 2003; McKay, 2006;). According to Onuka and Junaid (2007), the assessment which involves different techniques can be seen as tools to determine whether comprehensive learning that is normally used to help students to improve their learning. has taken place or not. In connection to teachers' assessment practice across department or field of study, Ong (2009) showed that there were statistically significant differences among teachers across department particularly in writing or constructing test items. But, no statistically significant differences were found across department specifically in analyzing test results and test revisions, constructing test items, communicating assessment results, using performance assessment and grading.

Furthermore, several researchers, notably Opolot-Okurut (2007) have described challenges that teachers face in the course of their work in different environments and subjects. Accordingly, one of the challenges identified was teachers' attitude towards using different types of assessment techniques affecting teachers' classroom assessment practices. An attitude refers to feelings, thoughts, beliefs, and appreciation that are shown through behavior either positive or negative. The attitude in this case, refers to the willingness of teachers to conduct the assessment as well as their views on the use of different assessment techniques. Besides, according to Sethusha (2012), teacher training, teachers' beliefs about the educational advantages of classroom assessment and the pedagogical benefits of implementing classroom assessment are related to challenges in teachers' classroom assessment practices. Also, Gatullo (2000) and Chen (2003) showed that demographics, teacher beliefs, teacher training, class size and teacher experience in actual classroom teaching may influence teachers' assessment practices. As well, Frey and Schmidt (2007) indicated that teachers were challenged by genuineness or reality of their assessments, and by their experience of how assessment could be used as formative feedback for the improvement of quality of teaching and learning.

Recently, the Ethiopian Ministry of Education is committed to providing a high-quality education for students at all levels of education (MoE, 2011). To achieve this intended goal, there should be classroom assessment with various techniques, which is an essential element in the provision of quality education (McMillan, 2000). Thus, this study is designed to identify the most widely used assessment methods, practices across department and challenges that hinder secondary school teachers' classroom assessment practices.

## Research Design

To accomplish the desired objective, this study employed a descriptive survey design. This research design was considered to be the most desirable ones because of the fact that the study tried to describe the current situation about teachers' practices and challenges in the classroom assessment by collecting data from the sampled participants at one time.

## Research Site, Sampling and Sampling Techniques

This study was conducted in South West Shoa Zone, which had fourteen (14) high schools, and these schools were located in eleven (11) rural Weredas and in one reform town. The population of this study was secondary school teachers' in the zone. The researchers of this study decided to use cluster-sampling technique in order to properly manage the study and to select schools that represent the zone for this study purpose.

In line with this fact, first, the researchers clustered the zone into two based on its organization into rural Weredas and reform town. Therefore, rural Weredas were clustered together in one group and the reform town in the other group. After forming these clusters, the reform town (Weliso) which is the only reform town in the zone was directly sampled for the study; thus, the only high school of the reform town, Geresu Duki high school, was sampled for the study. Moreover, the remaining rural Weredas were further clustered into four groups based on their geographical location, taking Weliso town as a center. Hence, cluster A contained Weredas located on the North side (Weliso, Bacho, and Ilu Weredas), cluster B contained Weredas located to the Northeast side (Tole, Sodo Dache, and Kersa Weredas), cluster C contained Weredas located to Southeast side (Goro and Seden Sodo Weredas) and cluster D contained Weredas located on Southwest side (Ameya, Wonci, and Dawo Weredas).

Furthermore, the researchers decided to take two clusters from the four clustered rural Weredas for the study. Those Weredas containing only one high school such as Weliso, Bacho, Ilu, Ameya and Dawo Weredas 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 Shoa Zone it becomes 50\%.
Alreck and Settle (2004) wrote that a sample larger than $10 \%$ of the target population is necessary because as sample size increases, sampling error decreases. 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 and based on this formula the total number of participants for this study was 197.

Table 1: Distribution of Schools, With Population and Sample Size

| N | Name of the schools | Population size |  |  |  | Sample size |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M | F | T | M | \% | F | \% | T | \% |
| 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 | Geresu Duki 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 <br> High school | 47 | 10 | 57 | 18 | 9.1 | 10 | 5 | 28 | 14.2 |
|  |  | 353 | 52 | 405 | 73.6 | 52 | 26.4 | 197 | 100 |  |

## Research Instruments

A questionnaire known as an Assessment Practice Inventory (API) designed by Zhang and Burry-Stock (2003) was adapted to measure teachers' practices in classroom assessment. Teachers were asked to respond to items on using the scale which was designed to measure teachers' assessment practices with the scale ranging from 1 (not at all used), 2 (rarely used), 3 (used sometimes), 4 (used repeatedly) and 5 (used very repeatedly). To investigate challenges affecting teachers' classroom assessment practices additional items were developed by the researchers based on literature in the area. The researchers used qualitative open-ended items since it permits the respondents to answer the questions in their own words (Smith, 1983).

## Pilot Study (instrument tryout)

The validity and reliability of the research tool were checked by reviewers and pilot study conducted before collecting data for the study. After developing the questionnaire from Zhang and Burry-Stock (2003) assessment practice inventory, to establish its content and face validity, it was first submitted to instructors of measurement and evaluation to judge the clarity of wording and the appropriateness of each item and its relevance to the construct being measured. The items were thoroughly inspected for relevance and clarity; the content validity of the instruments, omissions, vague items and terminology were improved and made to measure what they were supposed to measure by incorporating their corrections, suggestions, and comments. Following designing the instrument for data collection, pilot testing was done on 50 subjects similar to those to be included in the main study in Arbuchulule high school (Seden Sodo Wereda) which is one of the high schools in South West Shoa zone. The questionnaires were filled out properly and collected. The calculated Cronbach alpha reliability coefficients were 0.82 . Based on the pilot testing results, the wording and overall organizations of the items were revised.

## Data Collection

The data were collected from seven sampled high schools. Those adjusted items through pilot study were administered to 197 study participants of the selected high schools. The researchers personally administered the questionnaire to the research participants. Out of 197 questionnaires distributed to teachers, only 175 (88.8\%) returned.

## Methods of Data Analysis

Before analyzing the collected data, effective data entry tasks done and the analysis tasks were performed with the help of SPSS Windows 20. Accordingly, the data were processed using descriptive and inferential statistics based on their appropriateness for answering the research questions. One-way ANOVA employed to see whether there were statistically significant mean differences on assessment practices across departments or subject areas. Descriptive statistics or frequency, percentages, mean values and standard deviation were used to describe and summarize respondents' demographic characteristics and to summarize data on teachers' classroom assessment practices. Moreover, the obtained data regarding challenges in classroom assessment practices through open-ended questions were analyzed and presented using words and sentences accordingly. The alpha value for test of significance was set at 0.05 levels.

## Results

## Quantitative Results

A total of 197 questionnaires were distributed to respondents of the seven high schools and 175 were properly filled out and returned. Therefore, the response rate is $88.8 \%$.

## Demographic Characteristics of Respondents

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

Table 2: Demographic Characteristics of the Respondents across the Study Variables ( $\mathrm{N}=175$ ).

|  | Variable | N | \% |
| :--- | :--- | :--- | :--- |
| Sex | Male | 127 | $73 \%$ |
|  | Female | 48 | $27 \%$ |
| Department | Natural sciences $\&$ | 105 | $60 \%$ |
|  | mathematics |  |  |
|  | Social sciences | 33 | $19 \%$ |
|  | Languages | 37 | $21 \%$ |

Gender disparity is significantly higher among the respondents. Data revealed wider gender imbalance among teachers, that is, the percentage of respondents, when disaggregated by sex, is $27 \%$ female and $73 \%$ male. The ratio of female teachers did show a significant difference from their male counterparts. Moreover, with regard to departments of respondents, $60 \%$ is natural sciences and mathematics, $19 \%$ social sciences whereas $21 \%$ is language teachers.

## Teachers Use of Different Assessment Methods in their Classroom Assessment Practices

In order to answer the research question formulated earlier, descriptive statistics (mean values and standard deviations) were used to summarize data on teachers' classroom assessment practices on the five categories as shown in Table 3 below.

Table 3: Descriptive Statistics of Teachers' Classroom Assessment Practices.

| Variable | Mean | Std. Deviation |
| :--- | :--- | :--- |
| Constructing test Items. | 3.60 | 0.66 |
| Analyzing test results \& test revision | 2.37 | 0.42 |
| Communicating assessment results. | 3.04 | 0.63 |
| Performance assessment. | 2.12 | 0.44 |
| Grading. | 3.36 | 0.78 |

Table 3 above showed that among the five categories of classroom assessment practices, constructing test items (traditional assessment or the use of paper and pencil test) shared the highest mean score among the participants of the study ( $\mathrm{M}=3.60, \mathrm{SD}=0.66$ ), followed by the mean score of grading practice $(\mathrm{M}=3.36, \mathrm{SD}=0.78)$. The same Table showed that communicating assessment results shared mean score ( $M=3.04, S D=0.63$ ).

Furthermore, the least mean score was mean score of using performance assessment or alternative assessment ( $\mathrm{M}=2.12, \mathrm{SD}=0.44$ ). The most practiced dimension by secondary school teachers was constructing test items or traditional assessment techniques with the highest mean score followed by grading practices than the other categories of classroom assessment practices. Especially, the practices of performance assessment techniques by teachers are the least reported practices as shown in the table.

## Teachers' Classroom Assessment Practices across Department or Field of Study

The summary of the statistical analysis, indicated in Table 4 below, contains the summary of descriptive statistics for the five categories of assessment practices across teachers' field of study.

Table 4: General Summary of Descriptive Statistics for Teachers' Assessment Practices by Department.

| Variable | Group | N | Mean | SD |
| :--- | :--- | :--- | :--- | :--- |
| Constructing test items | 1 | 105 | 3.30 | .25161 |
|  | 2 | 33 | 4.03 | .27781 |
| Analyzing test results \& test revisions | 3 | 37 | 4.04 | .17935 |
|  | 2 | 105 | 2.40 | .18006 |
|  | 33 | 2.32 | .13414 |  |
| Communicating assessment results | 1 | 37 | 2.35 | .17909 |
|  | 2 | 33 | 2.05 | .34056 |
|  | 3 | 37 | 3.28 | .25112 |


| Variable | Group | N | Mean | SD |
| :--- | :--- | :--- | :--- | :--- |
| Using performance assessment | 1 | 105 | 2.12 | .16857 |
|  | 2 | 33 | 2.11 | .18126 |
|  | 3 | 37 | 2.12 | .16890 |
|  | 1 | 105 | 3.56 | .50984 |
|  | 2 | 33 | 2.53 | .35221 |
|  | 3 | 37 | 3.53 | .44011 |

(The numbers used under column two refers to 1 - teachers in natural sciences $\&$ mathematics department, 2- teachers in the social science department and 3- teachers in language department).

As presented in Table 4 above, the mean value of natural sciences and mathematics department teachers' $(M=3.30, S D=.25161)$ were lower than social sciences $(M=4.03$, SD $=.27781)$ and language department teachers' $(\mathrm{M}=4.04, \mathrm{SD}=.17935)$ in their classroom assessment practices in constructing test items but that of social sciences and language department teachers were closer to each other.

Besides, the result in Table 4 indicated that the mean value of natural sciences and mathematics department teachers' $(M=2.40, S D=.18006)$, social sciences $(M=2.32, S D=$ $.13414)$ and language department teachers' $(M=2.35, S D=.17909)$ in their classroom assessment practices in analyzing test results and test revisions were closer to each other. On the other hand, the mean value of social sciences department teachers' $(M=2.08$, SD $=.18205$ ) were lower than natural sciences and mathematics department $(\mathrm{M}=3.25$, SD $=.34056)$ and language department teachers' $(\mathrm{M}=3.28$, $\mathrm{SD}=.25112)$ in their classroom assessment practices in communicating assessment results but the mean values of natural sciences and mathematics department and language department teachers' were closer to each other.

Moreover, the result in Table 4 above indicated that the mean values of natural sciences and mathematics department teachers' ( $\mathrm{M}=2.12$, $\mathrm{SD}=.16857$ ), of social sciences $(\mathrm{M}=2.11, \mathrm{SD}=.18126)$ and language department teachers' $(\mathrm{M}=2.12, \mathrm{SD}=.16890)$ in their classroom assessment practices in using performance assessment were relatively the same.

Finally, the mean value of social sciences department teachers' $(M=2.53, S D=.53221)$ were lower than natural sciences and mathematics department ( $\mathrm{M}=3.56, \mathrm{SD}=.50984$ ) and language department teachers' $(M=3.53, S D=.44011)$ in their classroom assessment practices in grading but the mean values of natural sciences and mathematics department and language department teachers were almost similar.

In order to examine the difference in teachers' classroom assessment practices across department statistical analysis by one-way ANOVA was carried out and the result of the analysis is here indicated below in Table 5.

Table 5: General Summary of One-Way ANOVA for Teachers' Assessment Practices across Department.

| Variable | Group | N | Sum of <br> squares | df | Mean <br> square | F | Sig |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Constructing test | 1 | 105 | 22.662 | 2 | 11.33 | 190.849 | .000 |
| items | 2 | 33 | 10.212 | 172 | .059 |  |  |
| Analyzing test results | 1 | 37 | 32.874 | 174 |  |  |  |
| \& test revisions | 2 | 105 | .201 | 2 | .101 | 3.395 | .067 |
| Communicating as- | 1 | 33 | 5.102 | 172 | .030 |  |  |
| sessment results | 2 | 37 | 5.304 | 174 |  |  |  |
|  | 3 | 33 | 15.393 | 172 | .089 |  |  |
| Using performance | 1 | 37 | 52.794 | 174 |  |  |  |
| assessment | 2 | 105 | .003 | 2 | .001 | .048 | .953 |
| Grading | 33 | 5.033 | 172 | .029 |  |  |  |
|  | 3 | 37 | 5.036 | 174 |  |  |  |
|  | 1 | 105 | 28.233 | 2 | 14.12 | 63.935 | .000 |

(The numbers used under column two refers to 1- teachers in the department of natural sciences \& mathematics, 2- teachers in the department of social science, 3- teachers in department of language, and represents the three conditions used in the analysis significant at $\mathrm{p}<0.05$ ).

A one-way between-subjects ANOVA result shown in Table 5 above indicated that there was a significant difference in teachers' classroom assessment practices across departments in constructing test items at $\mathrm{p}<.05$ level for the three conditions $[\mathrm{F}(2,172)=$ 190.849, p < 0.05]. Post hoc comparisons using Scheffe's HSD test were done to identify which groups mean differences appeared in constructing test items and indicated in Table 6 below.

Table 6: Results of Post Hoc Comparison for Teachers' Classroom Assessment Practices in Constructing Test Items across Department.

| Department <br> (I) | Department <br> (J) | Mean Dif- <br> ference <br> (I-J) | Std. <br> Error | Sig. | 95\% Confidence <br> Interval |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | Lower <br> Bound | Upper <br> Bound |
| Natural sciences | Socials Sciences | $-.72911^{*}$ | .04863 | .000 | -.8492 | -.6090 |
| and mathematics | Language | $-.73935^{*}$ | .04658 | .000 | -.8544 | -.6243 |
| Socials Sciences | Natural sciences <br> and mathematics | $.72911^{*}$ | .04863 | .000 | .6090 | .8492 |
|  | Language | -.01024 | .05834 | .985 | -.1543 | .1338 |


| Department <br> (I) | Department <br> (J) | Mean Difference (I-J) | Std. <br> Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Lower Bound | Upper Bound |
| Language | Natural sciences and mathematics | .73935* | . 04658 | . 000 | . 6243 | . 8544 |
|  | Socials Sciences | . 01024 | . 05834 | . 985 | -. 1338 | . 1543 |

(* The mean difference is significant at the 0.05 level).
Table 6 indicated that Post hoc comparisons using Scheffe's HSD test in which the difference appeared between teachers in the department of natural sciences and mathematics and in the department of social sciences; also between teachers in the departments of natural sciences and mathematics and teachers in departments of language in constructing test items.

Finally, post hoc comparison indicates no significant difference between teachers in Social sciences departments and language departments in constructing test items. Taken together, this result suggests that teachers' classroom assessment practices in constructing test items differ across disciplines. Specifically, it was indicated that teachers in social sciences and language departments reported higher than teachers in natural sciences and mathematics department in their classroom assessment practices in constructing test items. However, teachers' in social sciences and language departments did not appear to differ significantly in their classroom assessment practices in constructing test items.

Besides, analysis result shown in Table 5 indicated that there was a significant difference across departments at $\mathrm{p}<.05$ level for the three conditions in teachers' classroom assessment practices in communicating assessment results; [ $F(2,172)=208.963, \mathrm{p}<0.05]$. Post hoc comparison result for teachers' classroom assessment practices in communicating assessment result is here treated below in Table 7.

Table 7: Results of Post Hoc Comparison for Teachers' Classroom Assessment Practices in Communicating Assessment Results across Department.

| Department <br> (I) | Department <br> (J) | Mean <br> Difference <br> (I-J) | Std. <br> Error | Sig. | 95\% Confidence <br> Interval |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | Lower <br> Bound | Upper <br> Bound |
| Natural sciences <br> and mathematics | Socials Sciences | $1.17186^{*}$ | .05970 | .000 | 1.0244 | 1.3193 |
| Socials Sciences | Language | -.03616 | .05719 | .819 | -.1774 | .1051 |
|  | Natural sciences <br> and mathematics | $-1.17186^{*}$ | .05970 | .000 | -1.3193 | -1.0244 |
|  | Language | $-1.20803^{*}$ | .07163 | .000 | -1.3849 | -1.0312 |
| Language | Natural sciences <br> and mathematics | .03616 | .05719 | .819 | -.1051 | .1774 |
|  | Socials Sciences | $1.20803^{*}$ | .07163 | .000 | 1.0312 | 1.3849 |

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

Table 7 revealed the result of Scheffe's HSD post hoc comparisons that significant difference appeared between teachers in the department of natural sciences and mathematics and teachers in the department of social sciences; likewise, between teachers in the department of language and teachers in the department of social science in communicating assessment results.

Results of post hoc comparison also indicated no significant difference between teachers in natural sciences and mathematics and language departments in communicating assessment results. As a whole, this result suggests that teachers' classroom assessment practices in communicating assessment results differ across disciplines. Specifically, results indicated that teachers' in natural sciences and mathematics and language departments reported higher than teachers' in the social science department in their classroom assessment practices in communicating assessment results. However, teachers' in natural sciences and mathematics and language departments did not appear to differ significantly in their classroom assessment practices in communicating assessment results.

The analysis of data by one-way ANOVA also depicted that there was a significant difference across departments at $\mathrm{p}<.05$ level for the three conditions in teachers' classroom assessment practices in grading; [F $(2,172)=63.935, \mathrm{p}<0.05]$. Post hoc analysis is indicated in Table 8 below.

Table 8: Results of Post Hoc Comparison for Teachers' Classroom Assessment Practices in Grading across Department.

| Department <br> (I) | Department <br> (J) | Mean <br> Difference (I-J) | Std. <br> Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Lower <br> Bound | Upper <br> Bound |
| Natural sciences and mathematics | Socials Sciences | 1.03636* | . 09377 | . 000 | . 8048 | 1.2679 |
|  | Language | . 03964 | . 08983 | . 907 | -. 1822 | . 2615 |
| Socials Sciences | Natural sciences and mathematics | -1.03636* | . 09377 | . 000 | -1.2679 | -. 8048 |
|  | Language | -.99672* | . 11251 | . 000 | -1.2745 | -. 7189 |
| Language | Natural sciences and mathematics | -. 03964 | . 08983 | . 907 | -. 2615 | . 1822 |
|  | Socials Sciences | .99672* | . 11251 | . 000 | . 7189 | 1.2745 |

(* The mean difference is significant at the 0.05 level).
Table 8 also indicated Post hoc comparisons using Scheffe's HSD test that significant difference was observed between teachers in natural sciences and mathematics and social science departments; correspondingly between teachers' in language and social sciences departments in grading. However, there was no significant difference between teachers in natural sciences and mathematics and language departments in grading.

Finally, post hoc comparison indicated no significant difference between teachers in natural sciences and mathematics and language departments in their classroom assessment practices in grading. In this regard, these results suggest that teachers' classroom assessment practices in grading differ across departments. Specifically, the results in the table indicated that teachers' in natural sciences and mathematics and language departments reported higher than teachers' in the social science department in their classroom assessment practices in grading. However, teachers' in natural sciences and mathematics and language departments did not appear to differ significantly in their classroom assess-
ment practices in grading.
Lastly, one way ANOVA output indicated in Table 5 revealed that there were no statistically significant differences in teachers' classroom assessment practices across departments in analyzing test results and test revisions; $[F(2,172)=3.395, p>0.05]$ and using performance assessment; $[F(2,172)=0.48, \mathrm{p}>0.05]$.

## Major Results Obtained from Qualitative data

Table 9: Frequency Distribution of Participants Response to the Items Intended to Investigate Challenges of Classroom Assessment Practices.

| Thematized Items | Response | Frequency | Percentage |
| :--- | :--- | :--- | :--- |
| How do you explain your attitude towards <br> using different types of assessment tech- <br> niques in assessing your students' perfor- <br> mance? | Positive | Neutral | 18 |
| In your view do you believe that using vari- | Yes | 88 | $50 \%$ |
| ous assessment techniques is important in <br> assessing students learning performance? | No | 69 | $40 \%$ |
| Do you have problem of resources such as <br> pen, exercise books, papers, computer ac- <br> cess and separate room for your department <br> that you need for effective teaching learning <br> process? | Yes | Po | 110 |
| Do you have adequate time to plan and fulfilled <br> assess your students' performance using <br> various types of assessment techniques? | No | 65 | $63 \%$ |
| Are you well trained about students' educa- <br> tional measurement and evaluation in your <br> per-service/ in-services University training <br> program? | Yes | No | - |
| Is class size or the number of students per <br> section in your class conducive to apply <br> various techniques of assessment? | Yes | Nes | 117 |

Table 9 above includes six items posed to respondents. For the first question, 10\% of respondents responded positive attitude, $50 \%$ neutral, $40 \%$ negative attitude towards using different types of assessment techniques in assessing their students' performance. In labeling their belief about the importance of using different types of assessment techniques $63 \%$ of the participants accepted the importance of using various assessment techniques while $37 \%$ of the respondents are not accepted its importance.

With regard to the role of resources such as pens, exercise books, papers, computer access and a separate room to be used by department members that can enhance effective teaching and learning process, $67 \%$ of the respondents assumed that these resources are partly fulfilled and $33 \%$ indicated that these resources are scarce.

In relation to the adequacy of time to plan and assess students' performance using various assessment techniques, $12 \%$ of respondents responded that they have adequate time to carry out those activities while $88 \%$ indicates that lack of enough time to properly plan
ahead and implement different assessment techniques to engross students in learning tracks.

Similarly, among the respondents, the response about whether they were well trained in students' educational assessment and evaluation in their in-services university training program showed that $75 \%$ had training in the area whereas $25 \%$ were not trained so far. Besides, in relation to the number of students per class all of the respondents (100\%) have indicated that it is really a problem and not conducive to apply different classroom assessment techniques.

In this research, following the above first step analysis, data collected through open-ended questions were organized and ideas raised by respondents are listed in order to categorize the responses under major themes. In doing so, major themes and major ideas under each theme were obtained for each item as indicated in Table 10 and 11 below.

Table 10: Summary of Theme Formed from Subjects Response to Open Ended Items (1-2).

| Major Themes | Lists of major ideas stated by respondents | Frequency | Percentage |
| :---: | :---: | :---: | :---: |
| Teachers' attitude towards using various assessment techniques | Discouraging living conditions as related to unsatisfactory monthly income (wage) and as a result of this dissatisfaction looking for extra work to generate additional income. | 50 | 29\% |
|  | Absence of private home to live in and some community impact related to renting houses. | 18 | 10\% |
|  | Student's dependency on each other and their low interest to do independently. | 40 | 23\% |
|  | Lack of trust in students' educational background, Poor ability of students in instructional language and their poor background in relation to knowledge and skills. | 36 | 21\% |
|  | Working environment not conducive like unavailability of facilities (recreational, separate library room \& reference books), lack of access to computer \& internet service and working double shift. | 25 | 15\% |
| Teachers' belief about using various assessment techniques | Using various assessment techniques make teachers' very busy and create additional load on the teachers' instructional time. | 30 | 31\% |
|  | Using various assessment techniques make students involved in routine activity. | 17 | 9\% |

Table 11: Summary of Theme Formed from Participants Response to Open Ended Items (3-6).

| Major Themes | Lists of major ideas stated by respondents | Frequency | Percentage |
| :---: | :---: | :---: | :---: |
| Lack of resources | These resources are scarce even though they are necessary input in the teaching and learning processes, no attention has been given to make them accessible. | 117 | 70\% |
| Lack of adequate time | Because of high teaching load per week, as a result many of the teachers are teaching double shifts, and there was a period allotment problem for some subjects and interference of non-academic tasks. | 154 | 88\% |
| Training gap | Because of teachers joining the teaching profession from the applied sciences stream and hence not trained in the fields of educational Assessment and evaluation. | 34 | 19\% |
|  | Teachers insufficiently trained in their profession because of less emphasis given during the in-service trainings | 10 | 6\% |
| Student class ratio | Large unmanageable class size (Large student's population per class), problem in organization of seat (not movable) and in sufficient space to move freely to help students in the class. | 175 | 100\% |

Among teachers responded to open-ended questions, as indicated in Table 10 and 11 above $40 \%$ of respondents indicated their attitude towards applying or using different types of assessment techniques as negative. They attributed different conditions for the prevailing attitude which are categorized into major themes and list of ideas under each theme and briefly discussed in the proceeding paragraphs.

The details were given by respondents with a negative attitude towards using a number of assessment techniques during their classroom assessment practices. From respondents whose response fall under negative attitude, the major ideas obtained from their answers were the discouraging living conditions or inflated life situation in relation to the monthly income they earn being in teaching line of work.

In this regard, their responses indicated that they are struggling to survive inflated living conditions than getting chance to consider the effectiveness of the teaching-learning process and applying different types of assessment techniques to help their students understand the contents of the curriculum designed for the particular grade level. Moreover, in strengthening the above idea subjects of the study responded that they are looking for extra work to generate additional income which enables them to lead their family properly because they are leading families and to afford money for their needs it is mandatory to look at a private way of obtaining an additional source of income.

In addition, the major idea obtained by analysis of responses to open-ended questions showed that some respondents are suffering by the absence of house to live in because some of the community members having to rent a house by asking their occupation before
permitting their houses as they addressed. Having these obstacles as they said affected their attitudes toward using different assessment techniques and towards thinking for others beyond the existing situations and therefore they said they are looking for or finding opportunities to be out of this occupation or profession.

Moreover, the third major idea obtained from respondents indicated that student's dependency on each other rather than independently striving to know and to achieve assessment results as contributory to their existing negative attitude towards using different types of assessment techniques in the path of their classroom assessment practices. They mentioned that Students are not interested to be assessed in different ways because they want the only test or written exam to copy from one another and easily earn pass marks. According to their explanation, most of the students have no interest in the subjective type of assessment such as work out, essay, projects, and reports etc. On the other hand, another major idea emerged from analysis of responses to this item resulted in lack of trust in students' background. Hence, as one dimension leading to a negative attitude towards using various types of assessment techniques; students' poor ability of instructional language, knowledge, skills, and experiences were major problems among stated. This condition imposed most students to become careless and reluctant to be committed or devoted to the assessment given to them. According to their point of view, it is painstaking and tedious to assess students who have a very wide range of prior knowledge, skills, and experiences.

Finally, the major idea emerged from the analysis of respondents to this item was found to be the absence of encouraging working environment or the condition in the school. The ideas raised by respondents and resulted in the formation of this theme includes; unavailability of recreational facilities, absence of separate library room and reference books for teachers' to read for further knowledge, lack of access to computer and internet service center, working double shifts and the attention of local government and school principals towards creating conducive environment. Accordingly, the absence of encouraging environment as pointed out by respondents contributed to their negative attitude towards using or applying various types of assessment techniques in assessing their students' day to day academic progress that can broaden the learners understanding of the subject matter.

With regard to the second item, those respondents described themselves as they do not accept or believe in the importance of using various types of assessment techniques said these activities make students busy in routine works rather than focusing on curriculum content because, using different types of assessment techniques as raised by respondents consumes students' time, makes them busy and occupied above necessary. Besides, they also mentioned that the use of various types of classroom assessment techniques is to add additional load or burden on teachers which is tedious and boring.

In line with the availability of resources, respondents said these resources are precondition or input to be fulfilled for the effectiveness of the teaching-learning process and they are decisive for education quality. They are useful in many aspects including planning for instruction and assessment; preparing tests, assignments, projects and different activities for evaluating students learning progress and therefore, for the applications of different types of assessment techniques as discussed by respondents.

As a result of the absence of these resources, subjects of this study mentioned that they are forced to use Blackboard for every activity, traditional assessment techniques at intervals based on the annual calendar of the school and cannot update themselves with in-
formation that enhances their understanding of subject knowledge, different assessment techniques and resulted in inaccessibility of different types of questions and activities which were developed during each session.

According to the responses given by respondents, lack of adequate time because of various ideas mentioned below was among the major challenges that affected planning and implementing various assessment techniques. Out of the reasons raised, the first was teaching load as a result of which they are teaching more than 20 periods per week in two shifts. This is a boring way of teaching and assessing more than 300 students using various assessment techniques is very difficult and impossible as respondents explained. Besides, they also added that the problem is not only teaching load per week but also the period assigned for some subject is not enough to cover the contents on time; especially the periods of some social science subjects like Geography and languages (Amharic and Afan Oromo) are two periods per week but the book is bulky having more than 200 pages.

Moreover, they added that additional committee works and nonacademic tasks are given by school principals, local Wereda and zonal level management to be done by teachers' hinder the effectiveness of the teaching-learning process. In line with this, they said that academic days are sometimes wasted because of different meetings or conferences and other activities like participating in group crop harvesting at the rural schools. Consequently, it is very difficult, even to cover the portion of the curriculum within the given time frame, let alone planning for various extra activities. One participant in emphasizing the work expected of them and the payment they earn per month said that "by one liter can car moves 100 kilometers per hour". In line with this, he added that the problem is not only lack of having enough time, but also much more motivational incentives are needed to use much more time to plan and assess students' performance using various assessment techniques.

Concerning the issue of training in the area of measurement and evaluation, the reasons given by those respondents belonging to the group not trained includes coming to teaching from applied sciences without taking courses of measurement and evaluation and professional courses, the professional courses given for summer program or in-service program including measurement and evaluation courses are monitored by distance and continuing education offices of Universities and offered in distance program as result it is not treated in more detail. According to the data obtained from subjects, on average there are 70-75 students per class. The difficulties as the respondents pointed out related to large class size includes; observing the behavior and the need of each student, giving different types of assessments, following up each and every student especially with the homework and class work, applying individual assessment, evaluating and giving practical activities in science subjects and in language subjects and applying student-centered teaching-learning method and various assessment techniques are problematic. Evidence from data also showed that large class size resulted in student's misbehavior which involves an attempt to copy from their friends, textbooks and exercise books during assessment and abuse the process of classroom assessment. With regard to this item, the summary of respondents' response depicted that the number of students per class and the organization of seats or easily unmovable desks does not permit the application of different types of classroom assessment techniques.

Finally, when respondents' response about challenges affecting classroom assessment practices are summarized, the major identified challenges that affect their classroom assessment practices were teachers' attitude towards and beliefs about using various assessment techniques, lack of resources and adequate time, workload or teaching periods
per week, training gap in the area of educational measurement and evaluation and large unmanageable class size or students- class ratio.

## Discussions

The assessment methods secondary school teachers mostly apply or follow in assessing their students' learning performance was traditional assessment methods than alternative assessment in their classroom assessment practices. Findings from this study regarding the more emphasis of secondary school teachers on the use of traditional assessment technique than alternative assessment strategy support those investigations (McMillan, 2000; Zhang \& Burry-Stock, 2003; \& Mertler, 2009) which indicated that secondary school teachers frequently use objective tests or traditional assessment than alternative assessment. A similar finding on the study conducted in Uganda secondary schools by Michael (2005), for instance, indicated that written tests or teacher-made tests were more commonly used assessment techniques by teachers than alternative forms of assessment. It was found out that secondary school teachers significantly differ in their classroom assessment practices across departments or their field of study. The results revealed that there were statistically significant differences across departments in constructing test items, communicating assessment results, and grading; however, there were no statistically significant differences across departments in analyzing test results and test revisions and using performance assessment. In line with the disparity among departments of social sciences, natural sciences and mathematics, and language in their assessment practices towards grading. It seems that teachers from natural sciences and mathematics and language departments reported higher than the social science department teachers' in relation to grading. This might be emanated because of teachers' in natural sciences and mathematics and language departments incorporate the use of non-achievement factors like attendance, effort, classroom behavior, attitude, ability in their grading procedures than teachers' in the social science department. This fact was also suggested by different scholars such as (Alsarimi, 2000; Zhang \& Burry-Stock, 2003; Ong, 2009 \& Hussain, 2011).

Furthermore, this study pointed out that teachers' attitude and beliefs towards using various assessment techniques, lack of resources and adequate time to plan and assess students' performance, workload or teaching periods per week, training gap in the area of educational measurement and evaluation and large unmanageable class size or students class ratio were the identified major challenges that hinder secondary school teachers' classroom assessment practices in the study area. Consequently, "The finding of the present study coincided with many other studies conducted on similar issues in other countries, like (Opolot-Okurut, 2007; Watt, 2005; Airasian, 2005; McMillan, 2000; Krueger, 2000; Wang, 2000 \& Duncanson, 2003). In general, the finding of this study depicted that teachers mostly rely on traditional assessment technique in assessing their students learning performance than using varieties of assessment techniques.

## Study Limitations and Future Directions

The major limitation of this study could be the fact that it does not incorporate students' perception and experience in their classroom learning assessment, and also other techniques like observations of the instructional process and comparative study with elementary school and/or preparatory school teachers. Thus, the researchers believed that if the study had involved the above-stated study subject and method, the study would have been provided a better image and understanding of the specified research area than the existing ones.

## Conclusions

The purpose of this study was to assess the most widely used assessment techniques, assessment practices across department and challenges that hinder high school teachers' classroom assessment practices in South West Shoa Zone. Accordingly, this study answered the basic questions formulated earlier and recommends actions to be taken for the improvement of classroom assessment. As a result, the following conclusions were drawn based on the findings.

From the finding of the present study, the researchers can conclude that in the study area secondary school teachers mostly used traditional assessment methods than alternative assessment in their classroom assessment practices. Based on this, the researchers would like to suggest that there should be transferal from the traditional teachers' made tests (that cannot ask students to produce anything, but only to recognize the right answer) to multiple techniques or alternative forms of assessment (that challenges students to perform a task, be able to access, interpret, and process information, make a decision, work cooperatively, possess higher-order thinking skills such as problem-solving, creativity, and critical thinking).

In addition, there were significant differences in teachers' classroom assessment practices across departments in constructing test items, communicating assessment results and grading but no differences were observed between teachers across departments in their classroom assessment practices in analyzing test results and test revisions and using performance assessment.

In relation to constructing test items, communicating assessment results and grading practices, it is possible to conclude that (1) In constructing test items teachers in social sciences and language departments reported higher than teachers in natural sciences and mathematics department and (2) In communicating assessment results and grading teachers in natural sciences and mathematics and language departments reported higher than teachers in social science department.

Moreover, the result of open-ended questions has indicated that teachers' attitude and belief towards using various assessment techniques, shortage of time for practicing various assessment techniques as of their assessment practices, lack of resources to plan and implement various assessment techniques, assessment training gap and large class size were major identified challenges affecting teachers' classroom assessment practices.

## Recommendations

Based on the finding of the study, the following points were suggested:

- As quality improvement has given a central priority of education, special training program about issues in classroom assessment that may orient teachers currently on the jobs with the current needs of education practices should be designed and offered by MOE and NGOs working in the area of education.
- For individuals who will be assigned as a teacher in the future, special attention should be given by the government to pre-service and particularly to in-service training program especially in relation to the subject contents and provision of assessment courses.
- Regional and the federal government should make efforts to firmly alleviate factors that affect secondary school teachers' attitudes and beliefs about applying different types of classroom assessment techniques.
- Government should customize course content or curriculum revision that is by reducing the volume of the teaching materials so as to cut the race of portion coverage or providing additional periods per week so that teachers get ample time and help their students by using or applying various assessment techniques.
- The federal government, regional government, NGOs and local community should pay special attention to schools in constructing additional quality classrooms or schools to make students class ratio up to standards.


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