

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**ASSESSMENT LITERACY AMONG
TEACHERS OF TECHNICAL AND
VOCATIONAL EDUCATION TRAINING (TVET)
CENTERS IN REGION-6**

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**ASSESSMENT LITERACY AMONG TEACHERS OF TECHNICAL
AND VOCATIONAL EDUCATION TRAINING (TVET) CENTERS IN
REGION-6**

ABERA KELEMU

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Table of Contents

	Pages
Acknowledgment.....	i
List of Tables.....	iv
Abstract.....	vi
Chapter One	
Introduction	1
1.1 Background of the Problem	1
1.1.1 Theoretical Background.....	1
1.1.1 a. i Concepts of assessment.....	1
1.1.1a.ii. Concept of classroom assessment	3
1.1.1.a. iii. Current view on classroom Assessment.....	5
1.1.1.a. iv. Teachers' Assessment Literacy	7
1.1.1.a. v. Teachers' professional Role and Responsibilities for student assessment	8
1.1.1.a. vi. Standards for teacher competence in Education Assessment.....	10
1.1.1. b. Related Research evidences to the problem	19
1.1.1.b. i. Teachers' Assessment competency	19
1.1.1.b. ii. Assessment Training for Teachers.....	20
1.1.1.b.iii. Teacher Beliefs about Training in classroom Assessment.....	23
1.1.1.b. iv. Assessment Literacy in Ethiopia.....	24
1.1.2 Practical Consideration of the present research problem	26
1.1.3 Statement of the problem	27
1.2 Purpose of the Study	28
1.3 Operational definition of key terms	29
1.4 Significance of the study.....	29
1.5 Delimitation of the study	30
Chapter Two	
Methodology	31
2.1 Method of Research	31
2.2 Participant of the study.....	31
2.3 Tools for data collection.....	31
2.4 Procedure of data Collection	34
2.5 Methods of Data Analysis	34

Chapter Three
Results.....36

Chapter Four
Discussion51

Chapter Five
Summary, Conclusion and Suggestion60

 5.1 Summary and Conclusion60

 5.2 Suggestion62

References63

Appendixes

Lists of Tables

Table 3.1: Percentage showing educational level and teaching experience	36
Table 3.2: Percentage of teachers who have taken a course on tests and measurement at different training period.....	37
Table 3.3 Number of courses that teachers have taken during their college training	38
Table 3.4: Percentage showing belief about knowledge in testing and measurement of teachers those who have taken course and those who haven't taken course.....	38
Table 3.5: Percentage showing perception of the teachers about possessing adequate skill in tests and measurement...39	
Table 3.6: Teachers' perception about factors that contribute a lot on their knowledge and skills in tests and measurement.	40
Table 3.7: Knowledge about standardized tests and use of standardized tests.....	41
Table 3.8: Existence of mechanism to evaluate the assessment techniques of the teachers, availability of feed back based on the evaluation and perceptions of teachers about the evaluation of their students	42
Table 3.9: Means and SDs of teachers' perception of their abilities in the seven competency standards.....	43
Table 3.10: Means and SDs of the perception of teachers (those who have taken course and those who haven't taken course on their abilities in the seven competency areas	44
Table 3.11: Mean and SDs of teachers actual level of knowledge in the seven competency standards	45
Table 3.12: Means SDs and t-test for the performance of teachers those who have taken course and those who haven't taken course in the seven competency areas	47

Table 3.13: Summary of ANOVA about the perception of teachers of their college training in tests and measurement and their performance in the seven competency areas	48
Table 3.14: Summary of ANOVA on teaching experience and their performance in the seven competency areas	49
Table 3.15: Correlations between teachers' perception about their abilities and their performance on the test.	50

Abstract

The main purpose of the study was to examine teachers' training background, their perception on their training back ground they had in assessment of students' learning, the competence level of teachers in the seven standards of assessment, and teachers' perceptions about their abilities in the seven competence standards of assessment. Beside, the relationship among their background, perception and level of knowledge were investigated. To serve the purpose of the study 41 teachers available in the TVET centers of Region-6 form the sample of the study. To gather data from the selected sample teachers' assessment literacy questionnaire was administered. To analyze the collected data, percentage, t-test, ANOVA and Pearson product moment correlation were used. The results indicated that most teachers have taken less than one course on measurement and evaluation during their college training and they believe their training was inadequate. Most of them have no in-service training and they showed low level of performance in the assessment competency test and a large majority rated their abilities as "very good" in some assessment skills. It was also found that experienced teachers and teachers who have taken measurement and evaluation course during their college showed better overall performance than teachers who lack experience and who haven't measurement and evaluation course during their college education. However, a significant difference is not observed between teachers who believed their college training is adequate and those teachers who believed their college training to be inadequate. Based on these findings conclusion and suggestion have been drawn

CHAPTER ONE

INTRODUCTION

Assessment plays an important role in the instructional program of schools. They provide information that can be used in a variety of educational decisions. Regarding this Elliot et al. (2000) pointed out that the processes of assessing student's learning are central to instruction.

As Majasan (1995) explained school education is so important to the welfare and development of society that the teacher has to do all he/she can to achieve the end goal of schooling, i.e. the overall development of a well-integrated person capable of playing a responsible and important role in the development of society. To produce the well-integrated thinker, critic, organizer, creator and appreciator that society needs to have, the teacher has to make sure at each step that all things are working in good order and that his/her pupils are assimilating what he/she imparts on them. The above idea leads us to meaningful continuous assessment of what is being learned.

1.1 Background of the problem

1.1.1 Theoretical Background

1.1.1.a.(i) Concept of Assessment

Fehring (2002), defines assessment as, "the process of collecting a range of information about learners and their diverse achievements, and about performance and making judgments about the significance of this information". Besides this Elliott et. al (2000) define assessment as, " By assessment we mean the process of gathering information about a student's abilities or behavior for

the purpose of making decisions about the student". Cooper (1997) noted that assessment is an integral part of instruction and good instruction asks assessment literacy of teacher. Shoemaker and Lewin (1993) also considered curriculum and assessment as two sides of the same coin because curriculum involves learning core conceptual knowledge and strategic processes, and assessment determines whether these things have been learned. In addition, assessment of students learning has a great contribution to monitor students learning (Cotton, 2001). Further, American Federation of Teachers (AFT), National Council on Measurement in Education (NCME) and National Education Association (NEA) (1990) explained, "assessment is the process of obtaining information that is used to make educational decisions about students to give feedback to the students about their progress, strengths, and weaknesses, to judge instructional effectiveness and curricular adequacies and to inform policy".

According to Nitko (1996), assessment is a process of obtaining information for making a particular educational decision. And a large number of assessment techniques may be used to collect this information. Here assessment techniques include formal and informal observations of a student, paper and pencil tests, a student's performance on home work, laboratory work, research papers, projects, and during oral questioning, and analysis of students' records. To Elliott et. al (2000) assessment tools include rating scales or checklists, interviews, observations and published tests.

Thus, assessment is more than testing. It is important that teachers should have the knowledge and understanding of a variety



of assessment tools. They should be capable of using different techniques to describe students' learning and to communicate with students, parents and others about such learning (Elliott et. al. 2000).

Generally teachers need to have profound knowledge of the application as well as the theoretical concepts in selecting, developing, applying, using, communicating and evaluating students' assessment methods and students' assessment practices.

1.1.1.a.(ii) Concept of Classroom Assessment

When we talk about classroom assessment, teacher assessment literacy is an important issue to consider because with the introduction of "authentic" assessment strategies, teachers need to be more skilled in assessment as they often are involved directly in the administration and scoring of these assessments (Plake and Impara, 1997). Moreover, evidences showed that the quality of assessment of students learning employed in schools determines largely the quality of their learning (Gage and Berliner, 1998)

As it has already been indicated that classroom assessment is a process of obtaining information for making a particular educational decision. According to Diez (1997) information from classroom assessment of students' performance can be used for different purposes such as: to give helpful information to the teacher and student about the improvement of student learning; to help in taking appropriate educational decisions; and to provide accountability at a number of levels. Indeed, the most important

use of assessment is to help the teacher to improve the teaching-learning process.

The purpose of classroom assessment varies depending on the purpose of a test. In this regard McCormick and Pressley (1997: 390) state that if the test is meant to provide feedback to the student and the teacher on the progress of instruction, then it serves the purpose of formative evaluation. If the test is meant to assess what the students have learned and use in grade assignments, then it serves the purpose of summative evaluation. If an individual's score is compared to that of other students, then it serves the purpose of norm-referenced evaluation. If an individual's score is compared to a standard or criterion, then it serves the purpose of criterion-referenced evaluation.

In the assessment of students' performance, current instructional practices emphasize the integration of assessment and instruction with the goal of "seamless" educational practices that combine teaching with on going analysis of student progress towards instructional goals (Airasin, 1991). Assessment usually starts with learning and ends along with it. So teachers are expected to know and use assessment methods of sufficient variety to check whether their pupils have acquired the basic knowledge, skills, and attitudes set for them (Ground and Linn, 1990).

Teachers should select their classroom assessment methods depending on the type of information they need to make a particular educational decision, they need to become competent in selecting and using the appropriate assessment methods (Child, 1993). The type of classroom assessment that teachers use limits the process of writing, administering, scoring, and reporting

examination results. The type of assessment used also can narrow down the teaching focus in the curriculum and encourage a passive concept of learning.

Using a variety of assessment techniques frequently is advantageous. The more frequently assessment takes place, the more students generally achieve. Frequent, brief quizzes are better than infrequent, long tests as the former requires students to pay attention for the time rather than for the occasional exam. In addition, frequent assessment techniques give students more timely feedback and they also provide reinforcement for hard work (Slavin, 1994).

1.1.1.a.(iii) Current View on Classroom Assessment

With the development of science and technology, the educational process is changing from time to time. And as the classroom assessment is a part and parcel of educational process, it can not be an exception. Owing to the change in classroom assessment methods, more sophisticated assessment demands are being placed on the classroom teacher, which asks knowledge and skills in the field.

Majasan (1995) pointed out that, recently a number of alternative methods of assessment have emerged because of the limitation of the two or three hours examination that was used to test a whole year's work. These methods include the analysis of work produced during the course, continuous assessment by the teacher, essay type examinations, creative tasks and objective tests.

Among the different assessment methods used in education, the one which is recently implemented is authentic assessment which is geared towards the assessment of any kind of performance that corresponds as closely as possible to real world experience (Borich and Tombari, 1995). This assessment method is important in the TVET center, because the teaching-learning process in the TVET center is practical and technical. Therefore, the assessment process should be based on the performance of the students. Moreover, the strategy of authentic assessment requires more knowledge about assessment.

Traditionally, tests designed to measure academic competencies used to focus on whether or not students get the right answers instead of how they arrive at the answers. In contrast to conventional (Content-based) assessments, performance assessments require students to demonstrate knowledge or skills, focusing on processing abilities that are valuable in and of themselves.

According to Wise, Lukin, and Roos (1991) criterion-referenced testing is becoming more common; its proper use requires knowledge about assessment and skills that differ from those needed for norm-referenced testing. Further they explained that curriculum based assessment is being used in an increasing number of classrooms, and computerized adaptive testing has introduced technical advances in assessment such as item response theory.

One of the modern methods of classroom assessment of students learning and which requires the literacy of teacher in assessment is continuous assessment. On this Njabili (1999)

argues that continuous assessment can be an alternative to the traditional forms of assessment. It is gaining a wide recognition at almost all levels of education. The main purpose of having a continuous assessment is to eliminate or minimize risk associated with a single examination. Further, Njabili (1999:114) gives the following explanation:

A continuous assessment is one, which involves a systematic collection of marks, or grades by the teacher over a period of time and the consideration of the marks or grades into a final score taken into account in deciding the candidate's final grades. The most distinctive feature of continuous assessment, in general, is that it is a cumulative process; developing as the pupil develops and reflecting his/her change in response to the course.

Concerning continuous assessment Majasan (1995) also has given similar explanation as Njabili. He viewed that continuous assessment is the process by which the progress of a student's work or performance is continuously built up over a prolonged period or representative period. It provides more reliable information about the student's performance than the result of a single examination.

1.1.1.a(iv) Teacher Assessment Literacy

Teachers need to have profound knowledge of the application as well as the theoretical concepts in selecting, developing, applying, using, communicating and evaluating student assessment methods and student assessment practices. Njabili (1999) suggested that as doing a good job in assessment demands skills that many teachers and educators lack. He further explains,



constructing tests, and evaluating assignments, projects, examinations, etc is an art. Some find it difficult to start with but as they get used to prepare and evaluate more and more tests and projects, they gain experience (Plake and Impara, 1997).

Teachers must understand the assessment process, feel secured about it, and accept it as their own for its effective implementation. However, insufficient training, lack of adequate materials, lack of moral support, and lack of orientation and assistance from concerned body make it difficult for teachers to appreciate and apply continuous assessment (Teshome, 2001).

Teachers can improve their assessment literacy in many ways. Concerning this Nitko (1996) suggested that by taking course in educational assessment, studying the lessons and practical suggestions taught by instructors, studying the material in books, and learning from experience in the classroom; teachers can acquire the professional attitude and competencies in students' assessment.

1.1.1.a (v) Teachers' Professional Role and Responsibilities for Student Assessment

Teachers have a great responsibility to develop well-prepared assessment procedures and well-planned grading procedures to make decision on the students' learning. Teachers are also expected to understand a variety of assessment tools. They should be capable of using different techniques to describe students' learning and to communicate with students, parents and others about such learning. Developing adequate assessment procedures and well-planned grading procedures give a sense of confidence that the teachers make best effort to evaluate the efforts of

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students. In addition it also improves the teaching-learning process.

According to AFT, NCME and MEA (1990) teachers' professional roles and responsibilities for student assessment can be described in terms of activities: a) occurring prior to instruction; b) occurring during instruction; c) occurring after the appropriate instructional segment; d) associated with a teacher's involvement in school building and school district decision making; and e) associated with a teacher's involvement in a wider community of education.

According to Elliott et al. (2000) standards of assessment competency requires a range of activities by teachers prior to instruction, during instruction and after instruction.

Further, Elliott et al. (2000: 467) explains:

... assessment activities prior to instruction involve teachers in (a) clarifying and articulating the performance outcomes expected of students (b) understanding students' motivations and creating connections between what is taught and tested and the student's world outside of school and (c) planning instruction for individual and group of students that is aligned with what will be tested. Assessment related activities occurring during instruction involve (a) monitoring student progress toward instructional goals; (b) identifying gains and difficulties students are experiencing in learning and performing; (c) adjusting instruction to better meet the learning needs of students (d) giving the extent that students have attained instructional outcomes. Finally, the assessment related activities occurring after instruction that involve teachers include (a) communicating strengths and weaknesses based on assessment results to

students and parents (b) recording and reporting assessment results for school level analysis, evaluation, and decision making (c) analyzing assessment information before and during instruction to understand each student's progress and to inform future instructional planning and (d) evaluating the effectiveness of instruction and related curriculum materials.

These activities imply that teachers need competence in student assessment and they need also to have sufficient time and resources to complete them in a professional manner.

According to Ory and Ryan (1998) teachers can develop excellent classroom assessment procedures by adopting the following 12 activities (1) identify test content areas and develop course objectives (2) develop a testing plan (3) develop test specification by selecting critical objectives and content; (4) write or select test items to meet test specifications (5) conduct a preliminary review of test items (6) assemble test forms (7) administer tests (8) evaluate test and item performance (9) identify and handle problem items (10) plan to review or retouch troublesome content areas (11) make item revisions and enter good and revised items into an item file (12) score tests and assign grades.

1.1.1.a (vi) Standards for teacher Competence in Educational Assessment

Assessing students' performance is a very important part of teaching. Naturally, teachers want to make good teaching decisions. Good decisions, however, require more than experience and good judgment. They need to obtain and use high quality information. High quality information is necessary if decisions are

to be accurate, valid, and fair to students. It is only through high quality assessments that high quality information is obtained.

To Brown (1983), to teach, teachers need competence in not only using and interpreting assessment results but also they need to select, change and craft assessment procedures to suit teaching style and the school environment in which the teacher works. The teacher also needs to be able to explain the results of assessment correctly to students, parents, other teachers and school administrators. Further, Biehler and Snowman (1993) pointed out that as the teacher develops professionally, he/she may have the opportunity to participate in local and state committees concerned with assessment issues.

Teachers' competence in assessing students' skill levels is essential for effective instruction to take place (Cotton, 2001). In addition, the task of making an appropriate and effective assessment of students' learning requires knowledge of the subject matter, knowledge and skill in the techniques of assessment construction, and knack of putting ideas accurately, concisely, and unambiguously into words (Noll, Scannell and Ckaig, 1997).

The teacher's competence in the assessment of students' learning can be improved through pre-service and in service training. But a question arises as to what standards are the bases for the training? Moreover, as it has all ready been indicated that the total amount of time devoted for measurement and evaluation is limited in colleges and it is impossible to cover all the important topics. As a result, instructors choose topics depending upon their knowledge of assessment (Gullickson, 1985).

Moreover, the believes of the American Federation of Teachers (in Elliot et. al., 2000) is that "assessment competencies are an essential part of teaching and that good teaching can not exist without good student assessment." As a result of these belief and to solve the problem and to answer the question raised above, educators representing AFT, NCME and NEA wrote the following set of seven standards for teachers competence.

Teachers should be skilled in:

1. Choosing assessment methods
2. Developing assessment methods.
3. Administering, scoring and interpreting assessment results.
4. Using assessment results.
5. Developing valid pupil grading procedures.
6. Communicating assessment results.
7. Recognizing unethical and illegal uses of assessment methods and information (AFT, NCME and MEA, 1990)

All these seven standards have been discussed in details in the following pages.

1. Choosing Assessment Methods

About teacher's skills in choosing assessment method appropriate for instructional decisions AFT, NCME and NEA (1990) explain:

Skills in choosing appropriate, useful, administratively convenient, technically adequate, and fair assessment methods are prerequisite to good use of information to support instructional decisions. Teachers need to be well acquainted with the kinds of information provided by a broad range of assessment alternatives and their strengths and weaknesses. In particular, they should be familiar with criteria for evaluating and

selecting assessment methods in the light of instructional plans.

According to AFT, NCME and NEA (1990) teachers who meet this standard will have the following conceptual and application skills (a) they will be able to use the concepts of assessment error and validity when developing and selecting assessment methods (b) they will understand how valid assessment data can support instructional activities. (c) They will understand how invalid information can affect instructional decisions about student. (d) They will be able to use and evaluate assessment options available to students. (e) They will be aware that different assessment approaches can be incompatible with certain instructional goals. (f) Teachers will know the appropriateness of each assessment approach they use. (g) Teachers will know of where to find information about and/or reviews of various assessment methods.

There are many different factors to consider when selecting a test. These include purpose, administration, scoring, cost, format, interpretation, reliability and validity (Mehrens and Lehmann, 1969).

Teachers assess their students' learning by developing their own assessment techniques and/or by using assessment procedures developed by other persons. Regarding this, Nitko (1996) explained that many times procedures developed by other persons are assessments that accompany in published learning materials.

Teachers should consider that assessment procedures developed by other persons often do not match the content, emphasis, vocabulary, or approach teachers' use in teaching. To

the degree to which these differences are serious, using assessment procedures developed by others will be unfair to our students as it can yield invalid results. Therefore, carefully checking and improving the quality of assessment methods is necessary. In some cases, fulfilling our professional responsibilities when using assessment tools made by others is more difficult than crafting our own (Nitco, 1996).

2. Developing Assessment Methods

The assessment information teachers' use for decision making comes from approaches they create and implement (AFT, NCME and MEA, 1990). Indeed, the assessment demands of the classroom go well beyond readily available instruments.

Teachers who meet this standard will be skilled in (a) planning the collection of information that facilitates the decisions they will make, (b) knowing and following appropriate principles for developing and using assessment methods in their teaching (c) avoiding common pitfalls in students assessment (d) selecting the techniques which are appropriate to the intent of the teacher's instruction and (e) using student data to analyze the quality of each assessment technique they use (AFT, NCME and MEA, 1990).

3 Administering, Scoring and Interpreting Assessment Results

It is not enough that teachers are able to select and develop good assessment methods; they must also be able to apply them properly. As AFT, MCME and NEA teachers who meet this standard will be skilled in interpreting informal and formal teacher-produced assessment results, able to use guides for scoring and able to use

them in the way that produce consistent results; able to administer standardized achievement tests and interpret the commonly reported scores; have a conceptual understanding of the summary indices; able to analyze assessment results to identify pupils' strengths and errors; able to use assessment methods in ways that encourage students' educational development.

It is suggested that the test administrator should thoroughly familiarize himself with the instructions for administration at least two or three weeks before the tests is given (Mehrens and Lehmann, 1996). The teacher should also be familiar with the assessment procedures and materials. He should prepare the assessment environment so that a valid assessment can be done. The teacher needs to understand how to administer the assessment including what the teachers are permitted to say to the students and how to prepare the students for the assessment (Nitko, 1996). Teachers must remember that all subjects should operate under optimal physical and psychological conditions.

4. Using Assessment Results

According to AFT, NCME and NEA (1990) teachers who meet this standard will be able to use accumulated assessment information to organize plan and /or evaluate instruction and curriculum, teachers will interpret the results correctly and avoid common misinterpretations, such as taking decisions on scores that lack curriculum validity.

5. Developing Valid Pupil Grading Procedures

Grading indicates both a student's level of performance and teacher's valuing of that performance (AFT, NCME and NEA, 1990).

According to AFT, NCME and NEA, teachers who meet this standard will be able to devise, implement and explain a procedure for developing grades composed of marks from various assessment methods they may use, understand and be able to articulate why the grades they assign are rational, justified and fair, be able to recognize and to avoid faulty grading, be able to evaluate and to modify their grading procedures in order to improve the validity of the interpretations made from them about students' attainments.

For Nitko (1996) grading strategies are highly individualized. Grading strategies should be characterized by what we call the golden rules of grading: fairness, accuracy; consistency, and defensibility. Further McCormick and Pressley (1997: 395) stated the following:

Grading requires teachers to make judgments about, students' performances which many teachers find it difficult and uncomfortable to do. Most classroom teachers grade their students because they are expected to and because they realize that grades provide information used to determine such things as suitability for promotion to the next level and to inform the community, including parents and students, of each student's progress.

Regarding grading, Ory and Ryan (1998:114) give the following basic grading guide lines: (1) grades should conform to the practice in the department and the institution in which the grade occurs (2) grading components should veiled accurate information (3) grading plans should be communicated to the class

at the beginning of each semester (4) grading plans stated at the beginning of the course should not be changed without thoughtful consideration and a complete explanation to the students (5) the number of components or elements used to assign course grades should be large enough to enhance high accuracy in grading.

As Stiggins and Conklin cited in McCormick and Pressely (1997) stated, teachers often follow some recommendations and ignore others because of the differences in the values held by them and testing experts. Further McCormick and Pressely (1996: 396) explain:

although experts discourage grading on effort, teachers feel that effort is an important student characteristics and that grading is an important feedback mechanism. Also the realities of classroom life make it unlikely that teachers have the time or expertise to use more complicated methods of figuring grades. Some teachers were also unaware of recommended grading practices since they were not stressed in teacher education programs.

The study by Stiggins and Conklin (as cited in McCormick and Pressely, 1997) indicated that some teachers followed some of the identified and recommended practices including (a) communicating grading methods to students (b) not considering students' characteristics like attitude and personality in grading (c) using methods of obtaining grading data such as written tests or performance assessment and not using oral questioning (d) not using the normal distribution to determine cut off scores. They also indicated that teachers did not follow others including (a) incorporating student characteristics such as efforts, motivation, and learning ability into grades (b) using formative daily

assignments in summative grading (c) not determining quality (reliability and validity) of grading data (d) using arbitrary methods of setting cutoff scores that were not consistent through out the high school for some courses (f) deciding border line cases in a subjective manner.

6 Communicating Assessment Results

Teachers, who meet this standard, according to AFT, NCME and NEA (1990), will understand and be able to give appropriate explanations of how the interpretation of students assessments must be moderated by their socio-economic, cultural, language and other background factors, able to communicate to students and to their parents or guardians, how they may assess the students' educational progress; understand and be able to explain the importance of taking measurement errors into account; able to explain the limitations of different informal and formal assessment methods; able to explain printed reports of the results of pupils' assessments.

7. Recognizing Unethical and Illegal Uses of Assessment Methods

Teachers who meet this standard will know those laws and case decisions which affect their classroom, school district, and state assessment practices; being aware that various assessment procedures can be misused or overused resulting in harmful consequences such as embarrassing students, violating a student's right to confidentiality; and inappropriately using students'

standardized achievement test scores to measure teaching effectiveness (AFT, NCME and NEA, 1990).

Teachers' assessment competence will continue to grow throughout the professional career; some of the competency standards listed above may be more appropriate for experienced teachers than for beginning teachers (Nitko, 1996).

Generally the standards are intended for use as:

- A guide for teacher educators as they assign and approve programs for teacher preparation
- A self assessment guide for teachers in identifying their needs for professional development in student assessment.
- A guide for workshop instructors as they design professional development experiences for in service teachers.
- An impetus for educational measurement specialists and teacher educators to conceptualize student assessment and teacher training in student assessment more broadly than has been case in the past (AFT, NCME and MEA, 1990).

1.1.1.b. Related Research Evidences to the Problem

In the following sections we will review research findings relating to teachers assessment competency, assessment training for teachers, teacher beliefs about training in classroom assessment and assessment literacy among teachers in Ethiopia.

1.1.1.b(i) Teachers Assessment Competency

Research suggests that teachers should spend as much as one third of their time involved in some type of assessment (Elliott et. al, 2000). A study conducted by Stiggins (1991) revealed that

teachers spend up to 50% of their professional time in assessment related activities in the classroom. However, many of these activities require assessment competency of the teacher in students' learning (Wise, Lukin and Roos, 1991). But Gosin, Mayo and Newman (all cited in Wise, Lukin and Roos, 1991) and Gullickson (1985) reported that teachers generally do not exhibit good measurement and assessment skills. These studies have addressed the issue of teachers' assessment competency through teacher self-report of competency or confidence levels in assessment. Although these studies provide useful information that permits inferences about levels of teacher assessment literacy, they do not focus directly on the actual knowledge levels of practicing teachers in the area of educational assessment of their students (Plake and Impara, 1997)

To identify the actual knowledge levels of teachers in the area of educational assessment Plake and Impara (1997) using the seven competency standards discussed in the previous section, conducted the national survey in United States on the teacher assessment literacy, and gives empirical evidence on the anticipated woefully low levels of teachers knowledge in the seven standards of assessment competency

1.1.1b(ii). Assessment Training for Teachers

The development of good assessment tools for student learning takes a great deal of time, effort, expense, skills and knowledge (McCormick and Pressley, 1997). In addition Fehiring (2001) reported that the strength of the best assessment of students' learning comes from professionally informed teachers.

Cotton (2001) also indicated that the effectiveness of teachers on monitoring and assessing student learning depends on their training.

In their role in the classroom, it is estimated that teachers spend up to 50% of their instructional time in assessment-related activities (Stiggins, 1991). However, for an activity that takes such a high proportion of their professional practice, teachers receive little or no formal assessment training in the preparatory programs (Wise, Lukin, and Roos, 1991). Further, teachers frequently report feeling ill-prepared to undertake assessment-related activities (Ward, 1980). In line with this Gullickson (1985: 96) states

...confident, effective use of these techniques require substantial knowledge on the part of teachers. Typically, colleges provide instruction in measurement and evaluation to help teachers gain requisite knowledge, but the total amount of time devoted to such topics is quite limited. As a result it is impossible to do justice to all the important measurement and evaluation topics.

Current studies also show that assessment has not been given emphasis in teacher training program as its role in teaching demands. A study by Schafer and Lissitz (cited in Wise, Lukin and Roos, 1991) indicated that the measurement training practices of the institutions, which participate in the preparation of teachers, is below its demand. This study revealed that fewer than half of the teacher education programs had a formal measurement course as a graduation requirement. Concerning this Noll, cited in Wise, Lukin and Roos (1991) found that only 21% of a sample of teacher education programs has a formal measurement course. Based on his investigation Noll concluded that the measurement training of

prospective teachers is almost certainly inadequate to prepare them to function effectively in an area so essential component to their success as teachers. The situation therefore, should be a matter of real concern to all engaged in the work of educating teachers (Noll in Wise, Lukin and Roos, 1991). Similarly Roeder (1972) surveyed 860 teacher education institutions and reported that only 270 (31%) required prospective elementary teachers to complete a measurement course. Thus, although the percentage of programs requiring a measurement course appears to have risen over the past three decades, the majorities still do not require a formal course (Wise, Lukin and Roos, 1991).

On the other hand, experience as a teacher and taking course in college class or in -service training with a major emphasizes on test and measurement have a relationship with teachers levels of knowledge. On this Plake and Imparas' study indicated that more experienced tended to show better performance than less experienced teachers counter parts on administering, scoring and interpreting assessment results and those teachers who have had measurement course showed higher overall knowledge than teachers who did lack this background.

In general, most of the teacher certification programs require no measurement course and those programs that do require educational measurement course work often also do not include adequate course content of the assessment strategies most useful to teachers. Therefore teachers, who have not been trained well in classroom assessment, may not be doing an adequate job in choosing, developing, administering, scoring, interpreting, and communicating assessment and assessment results.

1.1.1.b(iii) Teachers' Beliefs About Training in Classroom Assessment

Scanty researches have been conducted on the attitudes and beliefs of teachers about their measurement training. Gullickson (1984) surveyed the measurement-related attitudes of 391 teachers and concluded that most of these teachers believed that they had inadequate knowledge of testing and they believed they had learned how to test students through their experiences in the classroom.

Regarding teachers' beliefs about training in classroom assessment, a study conducted by Wise, Lukin and Roos (1991) also indicated that most teachers believed that strong measurement skills are important to their being perceived as professionals. In this study, from a sample of 397 teachers, 47% reported that their measurement training was somewhat or very inadequate and they learned about testing and measurement by trial and error in their classes. The study also showed that teachers who had taken less than one course in tests and measurement during their undergraduate course work were less likely to acquire measurement skills through graduate or in service work than teachers who took one or more courses. Moreover, Wise, Lukin and Roos's investigation indicated that regardless of the amount of their measurement training, teachers reported that measurement skills were very important and that they considered their own abilities in measurement to be high.

1.1.1.b.(iv) Assessment Literacy in Ethiopia

As Capper (1996), Airasian (1997) and Yoloye (1984) explained continuous assessment is an assessment approach that involves the use of a variety of assessment methods, assessing various components of learning including the thinking process, behavior, personality traits and skills. Similarly, Heaton (1990) pointed out that continuous assessment is a useful method of measuring students' learning and progress, which includes marks from homework and classroom tests. Regarding of its relevance, Heaton further explains that continuous assessment is used to assess students' certain qualities (such as effort, persistence and attitude) that cannot be assessed in other way.

According to Birhanu (2004) in Ethiopian schools the most commonly used methods of assessment are periodic and/or terminal. This is to mean that teachers assess their students' learning with tests mainly on monthly and semester basis of course. Birhanu also reported that Ethiopia teachers sometimes use class work and home assignments, where as continuous assessment methods such as field work, laboratory work, observation and project work are given little or no attention.

Further Birhanu explained that:

... teachers assess their pupils mainly to identify high and low achieving pupils rather than using the assessment results to identify pupils with learning problems and assist them on timely basis by adjusting their instruction according to the needs of such students. Besides, teachers do not use various assessment methods; rather they rely on certain types only. Moreover, even though teachers are expected to record every aspect of the assessment results of pupils' progress; they instead

record mostly the results of the more formal assessment methods. Particularly written tests, home work, and class work (Birhanu, 2004).

The recently implemented educational policy of Ethiopia suggests the practice of implementing the new curriculum at school level requires continuous assessment as a part of the instructional process (MOE, 1994). But studies by Anbesu and Getachew (1997), Birhanu (2004) indicated that most teachers do not use continuous assessment methods with sufficient variety to check whether their students have acquired the basic knowledge, skills and attitudes required, and hence, there is a problem among teachers with regard to usage of continuous assessment as a measurement strategy.

One of the serious problems encountered by teachers in implementing continuous assessment is lack of training in the field. Regarding this Airasian (1997) underlined that teachers who have not been trained well in classroom assessment may not be doing an adequate job in using continuous assessment in the classroom. Similarly, local studies conducted by Anbesu and Getachew (1997) and Birhanu (2004) showed that teachers lack requisite knowledge and skills about continuous assessment and this hinders to implement the strategy properly and effectively in the school. In addition to insufficient training, lack of adequate materials, lack of moral support, lack of orientation and assistance from those concerned bodies, and low interest and attitude towards the prescription of continuous assessment make it difficult for teachers to appreciate and apply continuous assessment in Ethiopian Schools (Birhanu, 2004).

Birhanu also reported that the habit of applying scientific item analysis procedure is almost absent among the school teachers. He indicated in his study that this may be attributed to the lack of skills in the procedures of item analysis, lack of knowledge of statistical concepts, and/or the fear that the analysis process consumes much of their time.

Generally, previous studies indicated that though teachers believed continuous assessment to be important for the proper handling of student assessment is poor and not up to the standard. Teachers do not have sufficient knowledge about the purpose of continuous assessment and they are not trained adequately in continuous assessment. This holds true in the TVET centers of Ethiopia.

1.1.2 Practical Consideration of the Present Research Problem

As the overseas studies indicated, with the introduction of "authentic" assessment strategies, teachers need to be more skilled in assessment of students learning. However, teachers receive little or no formal assessment training in the preparatory programs. This also seems to be true in Ethiopia because universities and colleges that prepare teachers give inadequate course in measurement and evaluation.

Assessment is more than testing. It should be very evident that teachers should understand a variety of assessments tools. They should be capable of using different techniques to describe students' learning and to communicate with students, parents, and others about such learning. To perform these, teachers should be

trained adequately and they should be competent in educational assessment.

It seems that some teachers in the TVET centers misuse assessment results because teachers not try to use the information they get from assessment results to plan and improve the teaching/learning process. It also seems that teachers take assessment results for their own sake or as an end by themselves.

Moreover the educational policy of Ethiopia for the TVET indicates that 70% of the teaching-learning processes have to be practical. Therefore the assessment strategies in these centers should mostly use authentic portfolio and performance assessment. But the experience of the investigator, having worked in a TVET center, indicates that most teachers use paper and pencil tests in the assessment process.

In addition to the above highlighted issues Ethiopia in general and Region-6 in particular suffers from lack of trained and skilled manpower. It seems teachers in the TVET centers do not have profound knowledge of the application as well as the theoretical concepts relating to types and purposes of assessment. It also seems teachers haven't use progressive pedagogical and psychological practices in order to assess the educational progress of their students. Moreover, there are scanty researches on this very issue in Ethiopian context. With this background the present study has been selected for research investigation.

1.1.3 Statement of the problem

Oriented by the existing literature and research findings on the importance of teachers assessment literacy on the teaching-

learning processes and to investigate the problem already identified above the investigator raised the following leading questions.

- What training background do the teachers of TVET centers in Region-6 have in educational assessment of students learning?
- What is the perception of the teachers regarding their educational assessment training?
- Is there a substantial difference on the perception of the teachers based on their background?
- What is the teachers' level of knowledge in the seven competency areas of assessment?
- Is there a significant difference on the teachers' level of knowledge based on their background?
- Is there a significant difference on the teachers' level of knowledge based on their perception?
- What is the perception of teachers about their abilities in the seven competency areas of assessment?
- Is there any relationship between teacher's level of knowledge and perception of the teachers about their abilities in the seven competency areas of assessment?

1.2 Purposes of the Study

The main purposes of the study are to examine:

- The training background of the teachers and their perception about the same.
- The perception of teachers' about their abilities in the seven competency areas of assessment
- Teachers' level of knowledge in the seven competency areas of educational assessment of students learning.

- The difference between the teachers' level of knowledge based on their background and perception
- The relationship between teacher's level of knowledge and perception about their abilities in the seven competency area of assessment.

1.3 Operational definition of key Terms

- **Assessment literacy:-** the skills and knowledge of teachers' in assessing their students learning.
- **Background factors:-** here it includes teachers experiences, measurement course during college and in-service training on assessment.
- **Perception:-** here it reference to the belief of teachers regarding their training in assessment and belief about their ability in the seven competency standard of educational assessment of student learning.
- **Seven competency standards:-** This includes choosing assessment methods, developing assessment methods, administering, scoring and interpreting assessment results, using assessment results, developing valid pupil grading procedures, communicating assessment results and recognizing unethical and illegal uses of assessment methods and information's.
- **Region-6:-** Benishangul Gumuz National Regional State

1.4 Significance of the study

As stated earlier, the purpose of this study is to investigate the competence level, background and perception of teachers about educational assessment of students learning and the relationship

between teachers' competency level with their background and perception in TVET centers of Region-6.

An awareness of teachers' competency level, in educational assessment of students' learning plays a significant role in the assessment of students' learning and for the attainment of the objective of the schools. Teachers and those who are responsible for the attainment of the objective of the school will be benefited with such knowledge so that they can apply sensible intervention strategies to improve the competency level of teachers in assessment literacy.

This study is also expected to be helpful to arouse the interest of other researchers to make further investigation on the area.

1.5 Delimitation of the Study

Although there are a great deal of factors that relate to the assessment of students learning, purposefully

- The study addresses teachers' training background, teachers' perception about their training and abilities in seven standards of assessment, and the competency level in the seven standards of assessment
- The study was limited to Region-6 TVET centers
- The study was confined the two TVET centers(i.e. Assosa and Manbuk TVET centers)
- The subjects were restricted to 42 teachers in the two TVET centers
- To realize the objectives, the study was limited to descriptive survey research method.

CHAPTER TWO

METHODOLOGY

2.1 Method of Research

To realize the objectives of the study descriptive survey research method was used.

2.2 Participant of the Study

In Region-6 there are two TVET centers. These TVET centers are Manbuk TVET center which has a total of 20 (7 female and 13 male) teachers and Assosa TVET center which has a total of 22 (4 female and 18 male) teachers. All 42 teachers of both TVET centers were taken as subjects on the basis of convenient sampling. However, one teacher didn't complete the questionnaire correctly which reduced the sample size to 41.

2.3 Tools for Data Collection

To collect the data from the teachers' assessment literacy questionnaire was developed. This questionnaire has two parts. The first part consists items related to teachers' background and perception in educational assessment of students learning. The second part consists items used to measure teachers' competence level in educational assessment of students' learning on the seven competency standards.

2.3.1 Items Relating to Teachers' background and Perception in Educational assessment of students learning.

The investigator developed items to get information about teachers' background in assessment training and some of their

perceptions about their skills and knowledge about students' assessment. In particular, teachers were asked about their perceptions, the adequacy and importance of their college training in tests and measurement, factors affecting their knowledge of tests and measurement, and their abilities in some measurement areas.

The questionnaires were closed ended. These questionnaires given to 4 MA (measurement and evaluation) students at the University for Comments. Based on their comments the items were revised. On this revised questionnaires, which consists of 30 items a pilot study was carried out on 20 randomly selected teachers in Mesrak Technical and Vocational Educational Training Center in Addis Ababa. Then possible amendments were made to overcome ambiguity and vagueness of the items in the instrument and then refinement was done accordingly.

2.3.2 Items Used to Measure Teacher's competence level in Educational Assessment of students' Learning on the seven Competency Standards

As stated earlier, educators representing AFT, NCME, and NEA developed a set of seven standards for teachers' competence in student assessment. On the basis of these seven standards Plake and Impara (1997) conducted a study on teacher assessment literacy by developing a test which measures teachers' competence level in these standards. So the present investigator measured teachers' level of knowledge in the TVET centers of Region-6 in the mentioned seven competency areas by a test which was adapted from teacher assessment literacy questionnaire by Barabra S. Plake and James C. Impara (1997).

According to Plake and Impara (1997) these instruments are valid indicators of the competency standard it is designed for, because the instrument were validated by two groups of measurement specialists that contain 10 members in each group. The first group was given information about the competency standard and was asked to rate in a low-high scale the degree to which they felt the item to competency standard alignment was appropriate. The second group was given the items and the competency standards and asked to make an independent judgment of the competency standard (s) best measured by each item.

Based on these two groups of measurement specialist rating the items were reviewed. In addition, AFT, NCME, and NEA members of the advisory committee gave their comments on the items and reviewed for clarity, validity, and appropriateness. Therefore the investigator adapted this instrument for the investigation of teachers' level of competence in the educational assessment.

While adapting the instrument some changes were made in the instrument. The first change was in the names of persons in the questions of the instrument. All names in the questions were changed in to Ethiopian names. The other changes were taken on the subjects name in the questions. Subject names were changed into course names which are given in the two TVET centers. This was done to make the questionnaire more relevant to the present study.

Finally, the pilot study was carried out on 20 randomly selected teachers in Mesrak Technical and Vocational Educational

Training Centers in Addis Ababa. Then possible amendments were made to overcome ambiguity and vagueness of the items in the instrument and then refinement was made accordingly.

The test consists of 35 items, 5 multiple choice questions for each of the seven competency area. For the total test 35 is the maximum possible marks and for each standards the maximum possible mark is 5. Each item has 1 mark for correct response and 0 mark for incorrect one.

2.4 Procedure of Data Collection

Teachers' assessment literacy questionnaire was administered in group by the researcher together with one of his colleagues. Teachers were told how to work on the questionnaire. Illustrations were also given to them to avoid confusion. The time allotted for the questionnaire was 1½ hours.

2.5 Methods of Data Analysis

The main purpose of this study was to examine teachers' background perception and the competence level of teachers' in the seven standards of assessment. Besides, the difference on the teachers' level of knowledge based on their background and perception was investigated. Moreover, the relationship between teacher level of knowledge and their perception about their abilities also investigated. To examine teachers background and perception percentages was used. To see teachers level of knowledge and their perception about their abilities in assessment mean and standard deviation were computed. To investigate the difference on the teachers' level of knowledge based on their background and perception t-test and ANOVA was used. To describe the

relationship between teachers' level of knowledge and their perception about their abilities in the seven competency area of assessment Pearson product moment correlation was calculated. After processing the raw data, the results were interpreted at $\alpha = 0.05$ level.

CHAPTER THREE
RESULTS

This chapter deals with the analyses and interpretation of the collected data. The collected data have been analyzed and presented in this chapter in three sections. Section one deals with the training background of the teachers and perception about the same, section two deals with the perception of the teachers about their abilities in the seven competency areas of assessment and section three deals with the teachers level of knowledge in the seven competency areas of educational assessment of students learning.

Section I.

Training Background of Teachers and Their Perception About the same

Table 3:1
Percentage showing educational level and teaching experiences

responde nts in	Educational level		Teaching experience			
	Degree	Diploma	Less than 2 years	2-4 years	5-8 years	9 or above
No	12	29	12	11	13	5
Percent	29	71	29	27	32	12

As shown in Table 3.1, the majority of the teachers (71%) are college diploma holders and the remaining 29% of the respondents are bachelor degree holders. In addition to the above background information, Table 3.1 also shows that from the total respondents,

the majority (32%) of the teachers reported that their teaching experience is between 5-8 years, 29% of the teachers reported their teaching experience to be less than 2 years, 27% to have experience between 2-4 years and only 5% of the respondents reported that they have 9 or more years of teaching experience.

Table 3.2
Percentage of teachers who have taken a course on tests and measurement at different training period

Respondents	pre-service	in-service	Not at all
No	21	10	20
Percent	51	24	49

One of the items in the self assessment literacy questionnaire asked respondents to identify their training background in the educational assessment of students' learning. As presented in Table 3.2, the respondents' college training in tests and measurement varied. Fifty one percent of the teachers in Region-6 TVET centers reported that they have taken course work in testing and measurement where as 49% of the respondents reported that they haven't taken course work in tests and measurement at all. As it can also be seen from Table 3.2, 24% of the respondents reported that they have got in service education about tests and measurement. This 24% of teachers are part of the 51% of teachers who have already taken the course during pre-service training.

Table 3.3

Number of courses that teachers have taken during their college training

Respondents who took	Respondents in	
	No	Present
Part of one course	6	29
One entire course	7	33
Two or more courses	8	38
Total	21	100

As illustrated in Table 3.3, from a total of 21 teachers who have taken courses work in their college training 29% (6 teachers) reported that part of one course was devoted to tests and measurement, on the other hand 33% (7 teachers) reported that they have taken one entire course and 38% (8 teachers) reported that they have taken two or more tests and measurement course work..

Table 3.4

Percentage showing belief about college training in testing and measurement of teachers those who have taken course and those who haven't taken course

Respondents	very inadequate	some what inadequate	some what adequate	very adequate
those who have taken course	14%(3)	19%(4)	48%(10)	19%(4)
those who haven't taken course	55%(11)	40%(8)	5%(1)	-

Among the teachers those who have taken course at pre-service or/and in-service training 14%(3 teachers) perceive the training is very inadequate, others 19% (4), 48%(10), 19%(4) perceive the training is some what inadequate, some what adequate and very adequate respectively. Among the teachers those who haven't taken course at pre-service or/and in-service training 55%(11) perceive the training is very inadequate, others 40%(8), 5%(1), perceive the training is some what inadequate and some what adequate respectively.

Table 3.5
Percentage showing perception of the teachers about possessing adequate skill in testing and measurement

Respondents	Responses	
	Yes	No
All respondents	76%(31)	24%(10)
Teachers who have taken course	71%(15)	29%(6)
Teachers who haven't taken courses	80%(16)	20%(4)

Table 3.5, displays the distribution of teachers' responses to a statement about the importance of measurement skills for teachers to be perceived as professionals. From the total respondents, 76% agreed on the statement and 24% disagreed on the statement. Table 3.5 also shows that the perception of the college course subgroups responses on the statement. 71% of the teachers who have taken course work and 80% of the teachers who haven't taken course work agreed to the statement. On the other hand 29% of the

teachers who have taken course work and 20% of the teachers who haven't taken course work disagreed to the statement.

Further, the self report questionnaire asked teachers whether or not they have interest to improve their skills and knowledge in assessment of students' learning. For this specific item, all the respondents reported that they have great interest in improving their skills and knowledge without a difference between teachers who have taken course work and teachers who haven't taken course work during their college training.

Table 3.6
Teachers' perception about factors that contribute a lot on their knowledge and skills in tests and measurement

Respondents	Factors that have greatest effect on the tests and measurement knowledge and skills of teachers			
	A college course	In-service training	Your own reading	Learning by trial and error
All respondents	32%(13)	19%(8)	34%(14)	15%(6)
Teachers who have taken course	33%(7)	33%(7)	24%(5)	10%(2)
Teachers who haven't taken course	30%(6)	5%(1)	45%(9)	20%(4)

One of the survey items in the questionnaire asked the perception of the respondents about the factor that had the greatest effect on their skill and knowledge of tests and measurement. Teachers' response for this item is presented in Table 3.6. From the total respondents 34% of the teachers perceived that one's own reading has greatest effect on their skill

and knowledge, on the other hand 32% perceived that a college course work has greatest effect, 19% perceived that in-service training has greatest effect and 15% perceived that learning by trial and error has greatest effect on their knowledge and skill in test and measurement. This result shows that the factor chosen most often was one's own reading. A college course work in tests and measurement ranked a distant second, in-service training falling the third rank followed by learning by trial and error in the classroom. As might be expected, the college course work subgroups differed substantially in their responses to this item. Table 3.6 also shows that 66% of the respondents who have taken course work in their college training reported that college course work or in-service training had a much stronger effect on their knowledge and skill in tests and measurement. Of the respondents who haven't taken measurement course, 45% chose one's own reading to have a stronger effect on their knowledge and skill in tests and measurement.

Table 3.7
Knowledge about standardized tests and use of standardized tests

Respondents in	knowledge		use of standardized tests	
	yes	No	Yes	No
No	14	27	-	41
Percent	34	66	-	100

Table 3.7 shows, 66% of the respondents replied that they do not have any knowledge about standardized tests and 34%

reported that they have some knowledge about standardized tests. However most teachers replied that they do not have any experience in using a standardized test in their classroom assessment of students learning

Table 3.8
Existence of mechanism to evaluate the assessment techniques of the teachers', availability of feedback based on the evaluation and perceptions of teachers about the evaluation of their students.

Respondents in	existence of mechanism to evaluate		get feed back	
	Yes	No	Yes	No
No	17	24	12	5
Percent	41	59	71	29

As presented in Table 3.8 most of the respondents (59%) replied that in their schools, there is no mechanism to evaluate their assessment techniques and 41% respondents replied the presence of some mechanisms. Even teachers who reported the presence of some mechanism to evaluate their assessment techniques (29% respondents) did not get any feedbacks based on the evaluation.

Section II

Perception of Teachers About their Abilities in the seven Competency Areas of Assessment

Besides collecting information about their beliefs on assessment training and the necessity of tests and measurement skills, teachers were also made to rate their abilities on a number of assessment skills in the seven standards for teacher competency in the educational assessment of students learning. The distribution of teachers' ratings for each standard is summarized in Table 3.9

Table 3.9

Means and SDs of teachers' perception of their abilities in the seven competency standards

No	Competency standards	Mean	SD	Total possible
1	Choosing an appropriate assessment device	3.63	0.60	5
2	Developing appropriate assessment device	3.80	0.66	5
3	Administering the appropriate assessment device	3.24	0.73	5
4	Using assessment results for decisions	3.37	0.80	5
5	Using assessment results for grading	3.70	0.88	5
6	Communicating results	3.21	0.88	5
7	Recognizing ethical issues	3.52	0.79	5

As shown in Table 3.9, the result of this study revealed that in each competency standards such as Choosing appropriate assessment device, Developing appropriate assessment device, Administering the appropriate assessment device, Using assessment results for decisions, Using assessment results for

grading, Communicating results, Recognizing ethical issues, teachers' mean perception has values between 3 and 4. This shows that, teachers perceive their skills in the seven competency standards as "very good".

Table 3:10
Means and SDs of the perception of teachers (those who have taken course and those who haven't taken course) on their abilities in the seven competency areas

No	Competency standards	Teachers who have taken courses		Teachers who haven't taken courses	
		Mean	SD	Mean	SD
1	Choosing an appropriate assessment device	3.57	0.64	3.65	0.54
2	Developing appropriate assessment	3.65	0.75	3.97	0.50
3	Administering the appropriate assessment	3.07	0.76	3.41	0.65
4	Using assessment results for decisions	3.31	0.75	3.43	0.84
5	using assessment results for grading	3.57	0.94	3.83	0.79
6	Communicating results	3.24	0.91	3.18	0.85
7	Recognizing Ethical Issues	3.52	0.89	3.53	0.66

Table 3: 10 shows teachers' ratings of the college course work subgroups (teachers who have taken courses and who haven't taken course) on their abilities in the seven competency standards. As illustrated in Table 3:10, the mean of the two subgroups ratings is a value between 3 and 4. This shows that teachers who haven't taken courses work in their college training perceive their skills in the same manner as teachers who have taken course work in their college training. Both of the two subgroups perceive their skills as

"very good". The ratings of the college course work subgroups for these assessment skills are also consistent.

Section III

Teachers level of knowledge in the seven competency areas of educational assessment.

Table 3.11
Means and SDs of teachers actual level of knowledge in the seven competency standards.

No	Competency standards	Means	SDs	Total possible
1	Choosing an appropriate assessment device	2.02	1.02	5
2	Developing appropriate assessment device	2.12	1.02	5
3	Administering the appropriate assessment device	1.90	0.85	5
4	Using assessment results for decisions	1.93	1.01	5
5	Using assessment results for grading	1.68	1.07	5
6	Communicating results	1.20	0.97	5
7	Recognizing Ethical Issues	1.76	1.08	5
8	Total	12.61	2.53	35

The assessment literacy questionnaire has also a test that was based on the seven competency standards. As indicated in Table 3:11, the mean performance of teachers on the total 35 items of the test is 12.61 with standard deviation 2.53 or nearly 36% correct. Teachers believe that 50% (refer to Table 3.8) to be the passing score for whatever mechanism is being used in their

classroom tests. So almost all the teachers who participated in this study have received a failing grade as inferred from their belief on the educational assessment of students' learning.

Table 3.11 also indicates that across the seven competency areas, teachers showed the highest level of competency in the area of developing assessment device (average performance of 2.12 and standard deviation of 1.02) and the lowest level of competency in the area of communicating results (average performance of 1.20 and standard deviation of 0.97).

An analysis was also under taken to investigate if teachers' performance on the test measuring their knowledge in the seven competency areas differed as a function of their back ground or perceptions.

Table 3:12

Means, SDs and t-test for the performance of teachers those who have taken course and those who haven't taken course in the seven competency areas.

n o	Standards	Teachers who have taken course		Teachers who haven't taken course		t-test	p-values
		mean	SDs.	Mean	SDs		
1	Choosing an appropriate assessment device	2.19	1.10	1.85	0.96	1.06	>0.05
2	Developing appropriate assessment device	2.29	1.03	1.95	0.97	1.09	>0.05
3	Administering the appropriate assessment device	2.00	0.82	1.80	0.87	0.75	>0.05
4	Using assessment results for decisions	2.10	0.75	1.75	1.18	1.09	>0.05
5	Using assessment results for grading	1.95	0.99	1.40	1.07	1.67	>0.05
6	Communicating results	1.38	1.13	1.00	0.71	1.27	>0.05
7	Recognizing ethical issues	1.9	1.06	1.60	1.07	0.91	>0.05
8	The overall standards	1.97	0.31	1.62	0.32	3.55	<0.05

Table 3:12 shows that, the mean performances of teachers' have taken measurement and evaluation course is greater than those who haven't taken the course in seven competency areas. On the other hand, all calculated t-test results showed that both groups do not differ significantly in their performance in the seven competency areas. However, the t- test calculated for the groups on the overall performance on the seven competency areas is 3.55, which is greater than table value 2.02 at 0.05 level. This shows that those teachers who have taken the course and those who haven't taken the course differ significantly in their overall performance in the seven competency areas.

Table 3.13
Summary of ANOVA about the perception of teachers of their college training in tests and measurement and their performance in the seven competency areas

Sources of variation	DF	SS	Ms	F	P
between	3 (4-1)	0.46	0.15	1.15	>0.05
with in	37 (41-4)	4.9	0.13		
Total	40 (41-1)	5.36			

As shown in Table 3.13, significant performance difference was not observed while comparing the overall test performance of teachers perception in the adequacy of their college training subgroups (teachers who reported their college training was very inadequate, some what inadequate, some what adequate and very adequate) about test and measurement ($F(3, 37)= 1.15, P> 0.05$).

Further, analysis was also undertaken to investigate if teachers' performance on the test measuring their knowledge in the overall competency differed as a function of the teachers' teaching experience. This is presented in Table 3.14

Table 3.14
Summary of ANOVA on teaching experience and their performance in the seven competency areas

Source of variation	DF	SS	MS	F	P
Between	3	1.15	0.38	3.45	<0.05
with in	37	4.15	0.11		
Total	40	5.30			

As shown in Table 3.14 a significant difference was found ($F(3,37)= 3.45, p<0.05$) while comparing the overall test performance of teachers those who have more experience and those who have less experiences in the teaching-learning process about tests and measurement.

Finally, pearson product moment correlations between teachers' ratings about their abilities and their performance in the seven competency areas are presented in Table 3.15.

Table 3.15

Correlations between teachers' perception about their abilities and their performance on the test

Teachers' perception about their abilities in the seven competency areas	Teachers performance in the seven competency areas								
		1	2	3	4	5	6	7	T
	1	0.16							
	2		-0.12						
	3			0.12					
	4				0.11				
	5					-0.10			
	6						0.21		
	7							-0.35	
	T								0.02

As illustrated in Table 3.15 the total correlation between teachers' ratings about their abilities and their performance in the seven competency standards (of the overall test score) was found to be $r = 0.02$, which was not significant. The result implies that the relationship between the perception of teachers about their abilities and their level of competence on the test was insignificant.

The result of this study also shows that the correlations between the two variables in the seven competency standards ranged from $r = -0.22$ to $r = 0.21$.

CHAPTER FOUR

DISCUSSION

In this chapter, the results of the study will be discussed in three sections in relation to the existing literature and research findings. The first section deals with the training background of the teachers and perception about the same, the second section deals to perception of the teachers about their abilities in the seven competency area, and the third section deals with the teachers level of knowledge's in the seven competency areas of educational assessment of students' learning.

4.1 Training background of teacher and their perception about the same.

The first research question of interest in the study was concerned with the training background of the teachers. Among all the teachers included in the study, almost two third of them reported that they have taken less than one course during their college training and only one fourth reported that they have taken in service training in assessment of students learning and all the teachers who have taken in service training were those who have taken college training. In general almost two third of the teachers in Region-6 TVET centers haven't got sufficient training in the assessment of students' learning. The result of this study is consistent with Wise, Lukin and Roos's (1991) explanation. They indicated that the measurement training practices of institutions which participate in the preparation of teachers, is below its demand. This generalization leads us to Anbesu and Getachew's (1997) suggestions that lack of requisite knowledge and skills about assessment hampers teachers

from implementing the proper and effective strategy of continuous assessment.

Concerning this, scholars believed that adequate training and awareness creation in the educational assessment are well integrated with teachers' college training and without this, it is impossible to have a proper implementation of assessment in the teaching learning processes.

While discussing the deficiencies of teachers in tests and measurements training in college, the question raised by Mayo is worth mentioning here. Mayo, in Wise, Lukin and Roos (1991) asked: "shall we send a beginning teacher out with out knowledge and skills in evaluation and hope that he or she won't flounder too badly until he can come back to graduate school for proper training?" Mayo's idea implies that teachers who were not "properly trained" in measurement at the undergraduate level soon will take graduate classes to make up their deficiency. However, the finding of Wise, Lukin and Roos suggests that teachers who have no adequate undergraduate measurement training are less likely to seek such training at the graduate level. In the present study it is found that even teachers who haven't taken a course work in their college training had no chance to enroll in in-service training. This finding therefore contradicts the one asserted by Mayo, that is, in our case poorly trained teachers in measurement in their college seem not to get further training.

The second interest of this study was to investigate teachers' beliefs on the adequacy of their tests and measurement training. Most of the respondents reported that their tests and measurement training was inadequate. Moreover, the result also indicated that the

college course work subgroups showed clear differences in the distributions of their responses. Those who had course work during their college training appear to be related to teachers' beliefs that their college training in tests and measurement was sufficient.

The result of this study also showed that most teachers did not believe their college or university course work had the greatest effect on their tests and measurement knowledge. This finding is consistent with those of Gullickson (1984), Wise, Lukin and Roos (1991). In this study it was found that most teachers believed one's own reading to have greatest effect on their test and measurement knowledge. On this line Wise, Lukin and Roos indicated that teachers learn through practice without formal techniques, eg. item analysis, which could improve their tests and their personal test development skills. Further, Wise, Lukin and Roos explained that prospective teachers are trained in settings where measurement skills are not emphasized. They are usually not required to take a measurement course for either graduation or certification. Moreover, student teachers are typically trained in an environment where testing and measurement skills are not considered to be particularly relevant for day-to-day teaching activities. Because of this, many prospective and practicing teachers receive the subtle message that formal measurement training is unimportant to teaching.

Another finding of this study is that most of the teachers believed that strong tests and measurement skills are important to their being perceived as professionals. This finding implies that teachers believe that assessment is part of their job. As indicated in the result of this study, it is too difficult to say there is a difference between the two course work groups. This leads to suggest that the

positive attitude of teachers in the TVET centers of Region-6 stems from their teaching experiences as the classroom teacher and their experience based evaluations of the needs of their profession.

The other interesting finding in this study is that most of the teachers reported that in their training centers there is no mechanism to evaluate their assessment techniques and a substantial number of teachers who reported the presence of some kind of evaluation mechanism in their training centers replied that they did not get any feed backs based on the evaluation mechanism. This implies that there is no mechanism in Region-6 TVET centers to provide feedback to the teachers on the quality of their measurements and assessments.

4.2 Perception of the teachers' about their abilities in the seven competency area.

The result of this study also revealed that in each competency standards teachers' mean perception about their abilities in assessment of students learning has values between 3 and 4. This shows that, teachers perceive their skills in the seven competency standards of assessment as "very good". On the other hand, the result of this study revealed that teachers in Region-6 TVET centers have taken less than one course in tests and measurement which is inadequate. Most of the teachers reported that their college training was inadequate. Studies have also showed that teachers generally do not exhibit good measurement and assessment skills (Wise, Lukin and Roos, 1991, Gullickson, 1985).

For such inconsistency an explanation given by Wise, Lukin and Roos is that beginning teachers remediate their deficiencies in

informal ways such as personal reading, practical classroom experience, or consulting other teachers. The researcher of this study, however agree with that of Plake and Impara. The finding of Plake and Impara (1997) suggests that the low levels of assessment competency of teachers are the main reason for the inconsistency of teachers' responses.

This study also illustrated that both of the teachers those who have taken course and those who haven't taken course previously in tests and measurement perceive their abilities in the seven competency areas as "very good". For this inconsistency the explanation is the absence of feed back about the quality of teachers' assessment process. This study showed in Region-6 TVET centers there is no feed back on the quality of teachers' assessment process. The absence of feed back about the quality of their measurements plays a major role on the beliefs of teachers. Concerning this Wise, Lukin and Roos (1991:41) give the following explanation:

...Teachers may believe that their measurement abilities are strong, and they receive little feedback to the contrary. If two teachers, one strong and one weak in measurement skills, each develop and administer a test to their students, each teacher will acquire a set of test scores that does not appear to differ from the other set. As long as both teachers believe that their tests are reliable and valid, they will be equally comfortable with the resultant scores. There is no mechanism in the schools to provide feedback to teachers on the quality of their measurements and assessments. In the absence of feed back, beliefs play a major role.

4.3 Teachers level of knowledge's in the seven competency standard.

One of the research questions that guided the study was concerned with the competency level of the teachers in the seven competency areas of educational assessment.

Teachers were given a test to measure their competency level. The results of this study showed low levels of competency for teachers. On the average, teachers earned failing marks on the overall assessment, with an average correct of 36%. The first explanation for this low level may be the college training of the teacher in tests and measurement. As indicated, most of the teachers who participated in the study had taken less than one course work in their college training. The result is also consistent to the study of Birhanu (2004) which suggested inadequate preparation and lack of awareness about the techniques on assessment made high school teachers handicap in using various assessment methods to check the pupil's mastery of the desired knowledge, skills and attitudes.

Current studies showed that assessment has not been given emphasis in teachers training programs as its role in teaching demands. Moreover, Plake and Impara showed in their study that teachers who have had measurement course work (with a college class or in-service with a major emphasis in tests and measurement) showed higher overall knowledge level than did teachers who lack this background.

In this study a significant difference was found when comparing overall test performance between teachers who have taken course work and teachers who haven't taken course work during their college training. This suggests those teachers who have taken course work showed higher level of competency than teachers who haven't taken course work. According to the results of this

study, college training has a roll on the assessment literacy of the teacher. Concerning this Plake and Impara (1997:67) explain

.. it is time for the educational community to recognize that teachers are ill-equipped to successfully undertake one of the most prevalent activities of their instructional program: student assessment. This is especially salient due to the current trend in student assessment, involving an increase in assessment strategies such as performance, portfolio, and other types of "authentic" assessment.

The present study also showed that most of the teacher preparation programs do not include a measurement course in their programs; even those programs which required a measurement course work in their training do not include adequate coverage of the assessment strategies most useful to teachers. Therefore teachers, who have not been trained well in classroom assessment, may not have adequate knowledge and skills in educational assessment of students learning. Because of this Wise, Lukin and Roos indicated that there are signs that many teacher education programs will soon adopt more extensive requirement in measurement course work. More over, AFT, NCME and MEA (1990) have completed the standards for teacher competence in educational assessment of students' learning. The standards served as the needed impetus for better preparation for curricular change in teacher education.

Furthermore, the average score of the teachers in this study were very much low when comparing the results in Plake and Impara. The first reason for this inconsistency may be the difference of the teaching experience of the teachers participating in the two studies. On this Nitko (1996) suggested teacher's assessment competence will continue to grow through the professional career,

some of the competency standards may be more appropriate for experienced teachers than for beginning teachers.

In the result of this study a significance difference was found when comparing overall test performance between teachers with more experience and less experience. Those more experienced teachers tend to show superior performance than less experienced teachers in the overall competency standards. Moreover, teachers who participated in this study have less teaching experience than teachers who participated in Plake and Impara study.

The other explanation for this inconsistency may be teachers' knowledge about standardized tests. The result of this study indicated that most of the teachers in Region-6 TVET centers have no knowledge about standardized tests and they have no experience in using a standardize test in their classroom assessment. But AFT, NCME and NEA suggested in their seven competency standards that teachers are expected to be skilled in choosing, administering, scoring, grading, interpreting and communicating the result of standardized tests.

Further, analysis was under taken to investigate if teachers' performance on the test measuring their knowledge in the overall competency differed as a function of the teachers' perception about the adequacy of their college training. The finding showed that no significant difference was found when comparing the overall average performance of the teachers in tests and measurement training adequacy subgroups. This result is consistent with the result of the study by Plake and Impara.

In this study, across the seven competency areas, teachers showed the highest level of competency in the area of developing assessments and lowest level of competency in the area of communicating results. In Plake and Impara study the highest level of competency was the area of administering assessments which is inconsistent to the result of this study. Plake and Impara

explanation may be the reason for this inconsistency. Their explanation was an area of weakness for some teachers and it may be strength of other teachers.

The result of this study also shows that the correlation between the competency level of the teacher and the perception of their abilities in the seven competency standards is not significant. The result shows teachers' competency level is very low and they perceive themselves as if they have "very good" abilities in the seven competency areas of assessment. The overseas studies also indicated that although teachers believe training related to measurement and evaluation is inadequate, they perceive themselves as highly skilled in measurement and evaluation.

CHAPTER FIVE

SUMMARY, CONCLUSION AND SUGGESTION

5.1 Summary and Conclusion

The main objective of the study was to examine teachers' training background and their perception on the training background they had in assessment of students' learning, and the competence level of teachers in the seven standards of assessment. Besides, teachers' perceptions about their abilities in the seven competence standards of assessment, the relationship among their background, perception and level of knowledge were explored. To achieve these objectives, the study was designed as follows.

The target population for the study was teachers in the TVET centers of Region-6. Forty-two teachers were selected by available sampling of which 20 from Assosa and 22 from Manbuk TVET centers. However, 1 teacher didn't complete the questionnaire correctly which reduced the sample size to 41.

To collect data from the sample population, teachers' assessment literacy questionnaire was administered. After collecting the data, they were tabulated, analyzed and interpreted. Percentages, t-test, F-test and Pearson product moment correlation, were used for the data analysis.

Based on the analysis of the results of the studies, it was found that.

- Most of the teachers in the TVET centers of Region-6 have taken less than one course during their college training. Teachers believed that their training was inadequate. There is also a clear difference in their perception about the adequacy of their training between teachers who have taken course and those teachers who haven't taken course during their college training. Most of the teachers who have taken course during their college training believed that their training was adequate.

- Teachers believed that strong assessment skills are important to their being perceived as professional. They reported that assessment is part of their job. Teachers have also interest in improving their skills and knowledge in assessment.
- In Region-6 TVET centers it was found that there is no any mechanisms to evaluate teachers' assessment techniques and teachers did not get feedbacks based on the evaluation.
- Region-6 TVET teachers' level of assessment competency was low. Moreover, it was found out that more experienced teachers tended to show superior performance as compared to the less experienced ones, and those teachers who had measurement course work during their college training showed better overall performance than did teachers who lack this back ground. However, a significant difference is not observed between teachers who believed their college training is adequate and those teachers who believed their college training to be inadequate.
- The relationship between teachers' level of assessment competency and their perception about their abilities in assessment was insignificant. Teachers believed that their ability in assessing students' learning was "very good", however they showed low level of performance in the seven competency standards of assessment.

Based on the above results the forth coming conclusion and recommendations were given.

As the results of this study revealed, teachers in Region-6 TVET centers haven't taken adequate assessment courses in their college training and they also showed low level of performance in the assessment competency test. This shows that assessment has not been given emphasis in the teacher training programs as its role in teaching demands. Because of this teachers don't have a profound knowledge of the application as well as the theoretical concepts of assessment and this hinders teachers to use progressive and psychological practices in order to assess the educational progress of their students.

It was found that many of the teachers in the sample believed their college training was inadequate. Most of them have no in-service training and they showed low level of performance in the assessment competency test, but a large majority rated their abilities as "very good" in assessment skills. This is because of lack of feed back to teachers on the quality of their measurements and assessments. Two teachers one weak and another strong in assessment may feel equally comfortable if they are not given any feed back about their assessment.

5.2 Suggestions

In light of the findings of this study the following suggestions are made:

- Colleges and universities which are engaged in teachers' training program should give emphasis for assessment courses. They should include adequate number of courses in their programs based on the seven competency standards.
- The concerned educational administrators of the TVET centers should organize seminar, workshop or any other strategy on assessment training that has major emphases of students' assessment.
- The in-service training in a major emphasis of educational assessment based on the competency standards should be prepared for teachers in the TVET centers by the concerned body.
- The school administrators (directors, supervisors) should devise a mechanism to evaluate teachers' assessment methods. They should also give feed backs based on the evaluation to improve the quality of teachers' assessment methods.
- It must be clear that finding of this study are not the final. Therefore, further research should be carried out on the problem.

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Appendixes
Appendix A.
Addis Ababa University
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Assessment Literacy Questionnaire

This questionnaire consists of two parts. Part I consists two sub-parts i.e. one part about your training back ground and perceptions about the same and the other part about your perceptions on your ability in assessment. Part II consists of 35 items related to teachers' competence in the educational assessment of students learning. This part is adapted from the teacher assessment literacy questionnaire by Planke and Impara (1993). The study based on this information is believed to have valuable contribution to the teaching/learning process particularly in assessment of students learning.

Note that your response to the questionnaire has no any mission beyond research purposes.

There is no need to write your name

Thank you in advance!

Part I

Please fill up the following background information before responding to the questionnaire.

Background Information

I. Your training center ☐ Manbuk TVET center ☐ Assosa
TVET center

II. Your teaching experiences is

☐ Less than two years ☐ between 2-4 years
☐ 9 or more years ☐ 5-8 years

III. Educational level: ☐ BEd ☐ BA ☐ BSc
☐ Collage Diploma

Part- I (A)

Instruction: - you are required to give your response by putting a tick (✓) mark in the box that fits your response.

1. Have you taken courses in tests and measurement?
☐ During pre-service ☐ During in-service
☐ Both (during pre-service and during in-service)
☐ Not at all
2. If your answer for No 1 is yes, how many courses have you taken?
☐ Part of one course ☐ one entire course
☐ Two or more courses ☐ I haven't take any course
3. Your belief about your college training in testing and measurement is:
☐ Very inadequate ☐ Some What Adequate
☐ Somewhat inadequate ☐ Very Adequate
4. In order that teachers to be perceived as professionals, it is important that they should possess adequate skills in technical areas such as testing and measurement.
☐ Yes ☐ No
5. Are you interested in improving your skill and knowledge, which will be helpful to you in students' assessment?
☐ Yes ☐ No
6. Which one of the following contributed a lot to your knowledge of testing and measurement?
☐ A college course in testing ☐ Your own reading

☐ In service training

☐ Learning by trail and error in
your class

7. Do you have any knowledge about standardized test?

☐ Yes ☐ No

8. Have you ever used a standardized test in your classroom
assessment?

☐ Yes ☐ No

9. Is there any mechanism to evaluate your assessment
technique in your training center?

☐ Yes ☐ No

10. If your answer for No 9 is yes, do you get feedback based on
the evaluation?

☐ Yes ☐ No

11. In your assessment of students learning, what score do you
consider to be a passing result?

☐ Above 45%

☐ Above 50%

☐ Above 55%

☐ Above 60%

Part- I (B)

Instruction:- it consists of 19 items relating teachers' ability in assessment. You are required to rate each item by putting a tick (✓) mark under only one of the scales. It is a five-point scale ranging from very poor to excellent. Here 1 represents very poor, 2-poor, 3- good, 4- very good 5- excellent.

No	Items	1	2	3	4	5
12	My ability in choosing assessment methods, which are appropriate, useful, fair, and convenient for administration.					
13	My ability in choosing assessment methods based on the information they provide.					
14	My ability in choosing assessment methods based on their strengths and weaknesses.					
15	My ability in constructing classroom test.					
16	My ability in writing the subject matter content, knowledge or skills I expect students to learn.					
17	My ability in following principles for developing assessment methods.					
18	My ability in administering standardized tests to students					
19	My ability in using guides for scoring projects					
20	My ability in using scales for rating performance assessments					
21	My ability in interpreting scores from classroom tests					
22	My ability in using assessment results effectively in making educational decisions					
23	My ability in using accumulated assessment information to organize a sound instructional plan					
24	My ability in grading classroom tests					
25	My ability in using principles to obtain valid grades.					
26	My ability in explaining the meaning of scores to others					
27	My ability in reporting assessment results to students, parents or guardians.					
28	My ability in explaining printed reports of the results of pupil assessments.					
29	My ability in recognizing laws and case decisions, which affect my assessment practices.					
30	My ability in keeping ethical and legal responsibilities in assessment.					

PART II

Direction:

Please read each item carefully and select the correct response by shading the corresponding circle. If you are not sure of your choice, but you think you know which is best, mark that response.

1. What is the **most** important consideration in choosing a method for assessing student achievement?
 - ☐ The ease of scoring the assessment.
 - ☐ The ease of preparing the assessment.
 - ☐ The accuracy of assessing whether or not instructional objectives were attained.
 - ☐ The acceptance by the school administration.
2. When scores from a standardized test are said to be "reliable," what does it imply?
 - ☐ Student scores from the test can be used for a large number of educational decisions.
 - ☐ If a student retook the same test, he or she would get a similar score on each retake.
 - ☐ The test score is a more valid measure than teacher judgments.
 - ☐ The test score accurately reflects the content of what was taught.
3. W/ro Momina wished to assess her students' understanding of the method of problem solving she had been teaching. Which assessment strategy below would be **most** valid?
 - ☐ Select a textbook that has a "teacher's guide" with a test developed by the authors.
 - ☐ Develop an assessment consistent with an outline of what she has actually taught in the class.
 - ☐ Select a standardized test that provides a score on problem solving skills.
 - ☐ Select an instrument that measures students' attitudes about problem solving strategies.

4. What is the **most** effective use a teacher can make of an assessment that requires students to show their work (e.g., the way they arrived at a solution to a problem or the logic used to arrive at a conclusion)?
- ☐ Assigning grades for a unit of instruction on problem solving.
 - ☐ Providing instructional feedback to individual students.
 - ☐ Motivating students to attempt innovative ways to solve problems.
 - ☐ None of the above.
5. Ato Abebe, the principal, was evaluating the teaching performance of Ato Kebede, the information technology teacher. One of the things Ato Abebe wanted to learn was if the students were being encouraged to use higher order thinking skills in the class. What documentation would be the **most** valid to help Ato Abebe to make this decision?
- ☐ Ato Kebede's lesson plans.
 - ☐ The curriculum guides for information technology.
 - ☐ Copies of Ato Kebede's unit tests or assessment strategies used to assign grades.
 - ☐ Worksheets completed by Ato Kebede's students, but not used for grading.
6. A teacher wants to document the validity of the scores from a classroom assessment strategy she plans to use for assigning grades on a class unit. What kind of information would provide the **best** evidence for this purpose?
- ☐ Have other teachers judge whether the assessment strategy covers what was taught.
 - ☐ Match an outline of the instructional content to the content of the actual assessment.
 - ☐ Let students in the class indicate if they thought the assessment was valid.
 - ☐ Ask parents if the assessment reflects important learning outcomes.
7. Which of the following would most likely to **increase** the reliability of Ato Mamo's multiple choice end-of-unit examination in civics education?
- ☐ Use a blueprint to develop the test questions.
 - ☐ Change the test format to true-false questions.
 - ☐ Add more items like those already on the test.
 - ☐ Add an essay component.

8. W/ro. Martha wants to assess her students' skills in organizing ideas rather than just repeating facts. Which words should she use in formulating essay exercises to achieve this goal?
- ☐ compare, contrast, criticize
 - ☐ identify, specify, list
 - ☐ order, match, select
 - ☐ define, recall, restate
9. Ato Mamo wanted his students to appreciate the literary works of Baelu Gerima. Which of his test items shown below will **best** measure his instructional goal?
- ☐ The history of "Bezabih & Sebele Wongale" found in which of Baelu's works?
 - ☐ True or False: Baelu was an orphan and never knew his biological parents.
 - ☐ Baelu Gerima wrote:
 1. Novels
 2. Short stories
 3. Poems
 4. All of the above.
 - ☐ Discuss briefly your view of Baelu's contribution to Ethiopian literature.
10. Several students in W/ro Meseret's class received low scores on her end-of-unit test covering multi-step word problems in applied business mathematics. She wanted to know which students were having similar problems so she could group them for instruction. Which assessment strategy would be **best** for her to use for grouping students?
- ☐ Use the test provided in the "teacher's guide."
 - ☐ Have the students take a test that has separate items for each step of the process.
 - ☐ Look at the student's records and standardized test scores to see which topics the students had not performed well on previously.
 - ☐ Give students word problems to complete and have them show their work.

11. Many teachers score classroom tests using a 100-point percent correct scale. In general, what does a student's score of 90 on such a scale mean?
- ☐ The student answered 90% of the items on this test correctly.
 - ☐ The student knows 90% of the instructional content of the unit covered by this test.
 - ☐ The student scored higher than 90% of all the students who took the test.
 - ☐ The student scored 90% higher than the average student in the class.
12. Students in Ato Berhanu's automotive class are required to develop a model of the fuel system as part of their end-of-unit grade. Which scoring procedure below will maximize the objectivity of assessing these student projects?
- ☐ When the models are turned in, Ato Berhanu identifies the most attractive models and gives them the highest grades, the next most attractive get a lower grade and so on.
 - ☐ Ato Berhanu asks other teachers in the building to rate each project on a 5-point scale based on their quality.
 - ☐ Before the projects are turned in, Ato Berhanu constructs a scoring key based on the critical features of the projects as identified by the highest performing students in the class.
 - ☐ Before the projects are turned in, Ato Berhanu prepares a model or blueprint of the critical features of the product and assigns scoring weights to these features. The models with the highest scores receive the highest grade.
13. At the close of the first month of school, W/ro Meseret gives her 10 + 1 program students a test she developed in civics education. Her test is modeled after a standardized civics education test. It presents passages and then asks questions related to understanding and problem definition. When the test was scored, she noticed that two of her students – who had been performing well in their class assignments – scored much lower than other students. Which of the following types of additional information which would be most helpful in interpreting the results of this test?
- ☐ The gender of the students.
 - ☐ The age of the students.
 - ☐ Reliability data for the standardized civics education test she used as the model.
 - ☐ Reading comprehension scores for the students.

14. Abebe, a beginning 10 + 1 program student, received a G. E. (grade equivalent score) of 12.0 on the Reading Comprehension subtest of a standardized test. This score should be interpreted to mean that Abebe (N.B Consider 10 + 1 program as 11th grader & 10 + 2 program as 12th grader)
- ☐ can read and understand 10 + 2 program reading level material.
 - ☐ scored as well as a typical beginning 10 + 2 program student scored on this test.
 - ☐ is performing in Reading Comprehension at the 10 + 2 program level.
 - ☐ will probably reach maximum performance in Reading Comprehension at the beginning of the 10 + 2 program
15. When the directions indicate each section of a standardized test is timed separately, which of the following is acceptable test-taking behavior?
- ☐ Alemu finishes the vocabulary section early; he then rechecks many of his answers in that section.
 - ☐ Alemaz finishes the vocabulary section early; she checks her answers on the previous test section.
 - ☐ Fatuma finishes the vocabulary section early; she looks ahead at the next test section but does not mark her answer sheet for any of those items.
 - ☐ Abebe did not finish the vocabulary section; he continues to work on that section when the testing time is up.
16. W/ro Zenash is starting a new semester with a factoring unit in her Applied Business Mathematics class. Before beginning the unit, she gives her students a test on the commutative, associative, and distributive properties of addition and multiplication. Which of the following is the most likely reason she gives this test to her students?
- ☐ The principal needs to report the results of this assessment to the state testing director.
 - ☐ W/ro Zenash wants to give the students practice in taking tests early in the semester.
 - ☐ W/ro Zenash wants to check for prerequisite knowledge in her students before she begins the unit on factoring.
 - ☐ W/ro Zenash wants to measure growth in student achievement of these concepts, and scores on this test will serve as the students' knowledge baseline.

17. To evaluate the effectiveness of the IT program for her gifted 10 + 1 program students, W/ro Martha gave them a standardized IT test normed for 10 + 3 program students. To decide how well her students performed, W/ro Martha compared her students' scores to those of the 10 + 3 program norm group. Why is this an **incorrect** application of standardized test norms?

- ☐ The norms are not reliable for 10 + 1 program students.
- ☐ The norms are not valid for 10 + 1 program students.
- ☐ 10 + 3 program IT items are too difficult for 10 + 1 program students.
- ☐ The time limits are too short for 10 + 1 program students.

18. When planning classroom instruction for a unit on arithmetic operations with fractions, which of these types of information have **more** potential to be helpful?

norm-referenced information: describes each student's performance relative to a other students in a group (e.g., percentile ranks, stanines), or

criterion-referenced information: describes each student's performance in terms of status on specific learning outcomes (e.g., number of items correctly answered for each specific objective)

- ☐ Norm-referenced information.
- ☐ Criterion-referenced information.
- ☐ Both types of information are equally useful in helping to plan for instruction.
- ☐ Neither, test information is helpful in planning classroom instruction.

19. Students' scores on standardized tests are sometimes inconsistent with their performances on classroom assessments (e.g., teacher tests or other in-class activities). Which of the following is **not** a reasonable explanation for such discrepancies?

- ☐ Some students freeze up on standardized tests, but they do fine on classroom assessments.
- ☐ Students often take standardized tests less seriously than they take classroom assessments.
- ☐ Standardized tests measure only recall of information while classroom assessments measure more complex thinking.
- ☐ Standardized tests may have less curriculum validity than classroom assessment.

20. TVET center teachers in Region 6 collectively designed and developed new curricula in Civics education, Mathematics, and IT that is based on regionally developed objectives and objectives in national curriculum guides. The new curricula were not matched directly to the content of the 10 + 1 program standardized test. A newspaper reports the 10 + 1 program students in Region 6 TVET centers are among the lowest scoring regions in the National Assessment Program. Which of the following would invalidate the comparison between Region 6 TVET centers and other centers in the country?

- ☐ The curriculum objectives of the other regions may more closely match those of the National Assessment.
- ☐ Other regions did not design their curriculum to be consistent with the National Assessment test.
- ☐ Instruction in Region 6 TVET centers is poor.
- ☐ Other regions TVET centers have different promotion policies than Region 6 TVET centers.

21. Which of the following choices typically provides the most reliable student-performance information that a teacher might consider when assigning a unit grade?

- ☐ Scores from a teacher-made test containing two or three essay questions related directly to instructional objectives of the unit.
- ☐ Scores from a teacher-made 20 item multiple-choice test designed to measure the specific instructional objectives of the unit.
- ☐ Oral responses to questions asked in class of each student over the course of the unit.
- ☐ Daily grades designed to indicate the quality of in-class participation during regular instruction.

22. A teacher gave three tests during a grading period and she wants to weight them all equally when assigning grades. The goal of the grading program is to rank order students on achievement. In order to achieve this goal, which of the following should be closest to equal?

- ☐ Number of items.
- ☐ Number of students taking each test.
- ☐ Average scores.
- ☐ Variation (range) of scores.

23. When a parent asks a teacher to explain the basis for his or her child's grade, the teacher should
- ☐ explain that the grades are assigned fairly, based on the student's performance and other related factors.
 - ☐ ask the parents what they think should be the basis for the child's grade.
 - ☐ explain exactly how the grade was determined and show the parent samples of the student's work.
 - ☐ indicate that the grading scale is imposed by the school board and the teachers have no control over grades.
24. Which of the following grading practices results in a grade that **least** reflects students' achievement?
- ☐ Ato Kebede requires students to turn in homework; however, he only grades the odd numbered items.
 - ☐ W/ro Alemetu uses weekly quizzes and three major examinations to assign final grades in her class.
 - ☐ Ato Kasa permits students to redo their assignments several times if they need more opportunities to meet his standards for grades.
 - ☐ W/ro Askale deducts 5 points from a student's test grade for disruptive behavior.
25. During the most recent grading period, W/ro Demeku graded no homework and gave only one end-of-unit test. Grades were assigned only on the basis of the test. Which of the following is the **major** criticism regarding how she assigned the grades?
- ☐ The grades probably reflect a bias against minority students that exists in most tests.
 - ☐ Decisions like grade assignment should be based on more than one piece of information.
 - ☐ The test was too narrow in curriculum focus.
 - ☐ There is no significant criticism of this method providing the test covered the unit's content.

26. In a routine conference with Tigest's parents, Ato Eshetu observed that Tigest's scores on the regional assessment program's quantitative reasoning tests indicate Tigest is performing better in mathematics concepts than in mathematics computation. This probably means that
- ☐ Tigest's score on the computation test was below average.
 - ☐ Tigest is an excellent student in mathematics concepts.
 - ☐ the percentile bands for the mathematics concepts and computation tests do not overlap.
 - ☐ the mathematics concepts test is a more valid measure of Tigest's quantitative reasoning ability.
27. Many regions are revising their school accountability programs to help explain differences in test scores across school systems. Which of the following is **not** something that needs to be considered in such a program?
- ☐ The number of students in each school system.
 - ☐ The average socio-economic status of the school systems.
 - ☐ The race/ethnic distribution of students in each school system.
 - ☐ The drop-out rate in each school systems.
28. The following standardized test data are reported for Abebe.
- Subject -- Stanine Score**
- Vocabulary -- 7*
- Mathematics Computation -- 7*
- Social Studies -- 7*
- Which of the following is a **valid** interpretation of this score report?
- ☐ Abebe answered correctly the same number of items on each of the three tests.
 - ☐ Abebe's test scores are equivalent to a typical seventh grader's test performance.
 - ☐ Abebe had the same percentile rank on the three tests.
 - ☐ Abebe scored above average on each of the three tests.

29. Ato Abebe bases his students' grades mostly on graded homework and tests. Ato Kebede bases his students' grades mostly on his observation of the students during class. A major difference in these two assessment strategies for assigning grades can **best** be summarized as a difference in
- ☐ formal and informal assessment.
 - ☐ performance and applied assessment.
 - ☐ customized and tailored assessment.
 - ☐ formative and summative assessment.
30. Mamo scored at the 60th percentile on a cost accounting test and scored at the 57th percentile on a test of economics. If the percentile bands for each test are five percentile ranks wide, what should Mamo's teacher do in light of these test results?
- ☐ Ignore this difference.
 - ☐ Provide Mamo with individual help in economics.
 - ☐ Motivate Mamo to work on economics more extensively.
 - ☐ Provide enrichment experiences for Mamo in cost accounting, his better performance area.
31. In some testing companies are required to release items from prior versions of a test to anyone who requests them. Such requirements are known as
- ☐ open-testing mandates.
 - ☐ gag rules.
 - ☐ freedom-of-information acts.
 - ☐ truth-in-testing laws.

32. W/ro Helen wants to let her students know how they did on their test as quickly as possible. She tells her students that their scored tests will be on a chair outside of her room immediately after school. The students may come by and pick out their graded test from among the other tests for their class. What is wrong with W/ro Helen's action?
- ☐ The students can see the other students' graded tests, making it a violation of the students' right of privacy.
 - ☐ The students have to wait until after school, so the action is unfair to students who have to leave immediately after school.
 - ☐ W/ro Helen will have to rush to get the tests graded by the end of the school day, hence, the action prevents her from using the test to identify students who need special help.
 - ☐ The students who were absent will have an unfair advantage, because her action allows the possibility for these students to cheat.
33. A region uses its regionwide testing program as a basis for distributing resources to school systems. To establish an equitable distribution plan, the criterion set by the Regional Bureau of Education provides additional resources to every school system with student achievement test scores above the region average. Which cliché best describes the likely outcome of this regulation?
- ☐ Every cloud has its silver lining.
 - ☐ Into each life some rain must fall.
 - ☐ The rich get richer and the poor get poorer.
 - ☐ A bird in the hand is worth two in the bush.

34. In a school where teacher evaluations are based in part on their students' scores on a standardized test, several teachers noted that one of their students did not reach some vocabulary items on a standardized test. Which teacher's actions is considered **ethical**?

☐ Ato Asheber darkened circles on the answer sheet at random. He assumed Mamo, who was not a good student, would just guess at the answers, so this would be a fair way to obtain Mamo's score on the test.

☐ Ato Desta filled in the answer sheet the way he thought Alemu, who was not feeling well, would have answered based on Alemu's typical in-class performance.

☐ Ato Kebede turned in the answer sheet as it was, even though he thought Kasa, an average student, might have gotten a higher score had he finished the test.

☐ Ato Demeke read each question and darkened in the bubbles on the answer sheet that represented what he believed Tadel, a slightly below average student, would select as the correct answers.

35. W/ro Abebech was concerned that her students would not do well on the National Assessment Program to be administered in the future. She got a copy of the standardized test form that was going to be used. She did each of the following activities to help increase scores. Which activity was **unethical**?

☐ Instructed students in strategies on taking multiple choice tests, including how to use answer sheets.

☐ Gave students the items from an alternate form of the test.

☐ Planned instruction to focus on the concepts covered in the test.

☐ None of these actions are unethical.