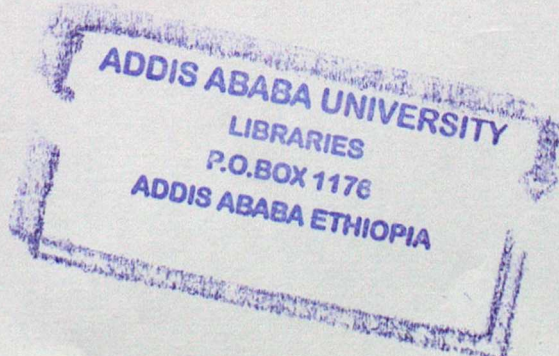
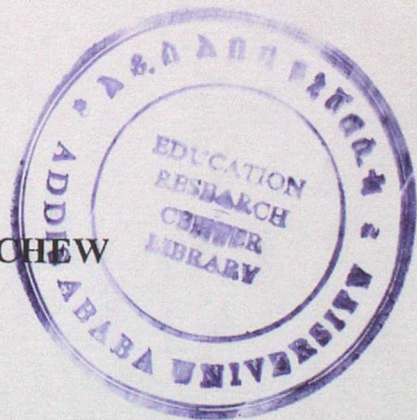


ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

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OF FRESHMAN PROGRAM COMPLETE AND PREPARATORY
PROGRAM COMPLETE TEACHER EDUCATION
GRADUATES IN ILLUBABOR**

BY

TESFAYE GETACHEW



JUNE 2008

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**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES,
ADDIS ABABA UNIVERSITY, IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE MASTER OF ARTS IN
CURRICULUM AND INSTRUCTION**

**BY
TESFAYE GETACHEW**


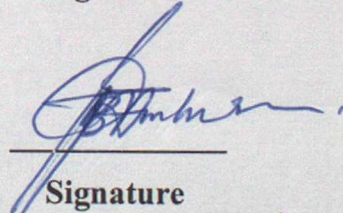

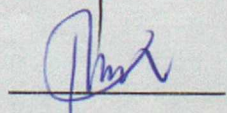
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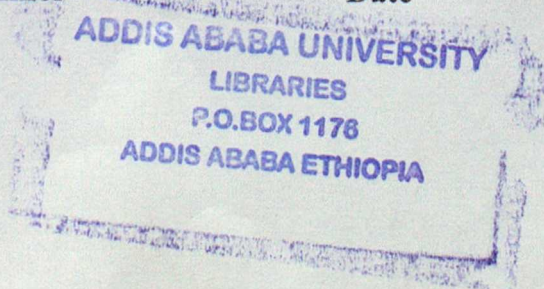
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TESFAYE GETACHEW

Approval of Board of Examiners:

<u>Dr. Abdulaziz Hussien</u>	<u>10/2/08</u>	
Chairman, Department of graduate committee	Date	Signature
<u>Dr. Ambissa Kenea</u>	<u>07/07/08</u>	
Advisor	Date	Signature
<u>Dr. Solomon Areaya</u>	<u>08/07/08</u>	
Internal Examiner	Date	Signature
<u>Dr. Jeilu Oumer</u>	<u>July 2008</u>	
External Examiner	Date	Signature



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ACRONYMS/ ABBREVIATIONS

AAU:	Addis Ababa University
BESO:	Basic Education Strategic Objectives
CGPA:	Cumulative Grade Point Average
EGSECE:	Ethiopian General Secondary Education Certificate Examination
EHEEQC:	Ethiopian Higher Education Entrance Qualification Certificate
EJE:	Ethiopian Journal of Education
EMPDA:	Educational Material Production and Distribution Agency
ESDP:	Education Sector Development Program
ESLCE:	Ethiopian School Leaving Certificate Examination
FDRGE:	Federal Democratic Republic Government of Ethiopia
FPC:	Freshman Program Completes
IER:	Institute of Educational Research
MoE:	Ministry of Education
MoEFA:	Ministry of Education and Fine Arts
PPC:	Preparatory Program Completes
TESO:	Teacher Education System Overhaul
TGE:	Transitional Government of Ethiopia
WCEFA:	World Conference on Education for All

ABSTRACT

The study aimed at comparing the teaching effectiveness of Freshman and Preparatory Program Complete teacher education graduates of 2006 & 2007 academic years in Illubabor Administrative zone. To this end, 62 Freshman and Preparatory Program Complete teacher education graduates; 57 department heads of the respective teachers; 23 school directors and vice directors; and 850 students were included into the study from 14 senior secondary schools as sources of data. The approach employed to undertake the study was a comparative design, and the instruments used to secure information from the data sources were observation checklist with rating scale and questionnaires for different types of respondents. In addition, documentary sources were also used to supplement the secured information. Percentages, mean scores, t-test, One-Way Analysis of Variance (ANOVA), and Pearson's product moment correlation were used to analyze the secured data. Before administering the instruments pilot test was carried out and the results found to be $r_{xy} = +0.85$, $+0.77$ and $+0.87$ for observation checklist with rating scales, teachers' and students' questionnaires respectively. Moreover, the inter-raters' such as department heads', director's and students' agreement on the items of the variables found to be $\alpha = 0.96$. These indicate that there are positive and high correlation between the rounds of the observations, each item of the questionnaires and the items of different types of questionnaires.

The results of the study indicated that there was a significant difference between the teaching effectiveness of Freshman and Preparatory Program Complete teacher education graduates, i.e., the former group performed significantly higher than their latter counter parts. However, no significant difference was reported between teacher education colleges of universities in preparing both groups of graduates. The result also indicated that there was high and positive correlation between the academic background and on-the-job effectiveness of the Preparatory Program Complete teacher education graduates. Whereas the ESLCE results of the Freshman Program Complete graduates are very close to each other so that it becomes difficult to obtain the exact correlation between the on-the-job effectiveness and the national examination results. This might imply that despite the high expectation of the PPC group being competent in the campus duration; it seems reconsidering the intake results in EGSECE towards the Preparatory Program and in EHEEQC towards the Higher Institutions Program. Based on the findings, it is recommended that all concerned bodies need to give due attention to the preparation, recruitment, induction and empowerment of the secondary school teachers.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Teaching is an essential part of the process of education; and it is a process of imparting knowledge, developing skills and understanding. In this regard, Aggarwal (2001:15) claimed that teaching is associated with the imparting of knowledge of various school subjects whereas education has a wider connotation. Thus, an advanced society could be established through a well-designed educational program, and the implementation of effective teaching strategy. That is why nations, whether developing or developed, highly strive to develop and put into practice better teaching strategies.

Concerning education at large, and teaching effectiveness in particular, scholars viewed it in several ways. Some claim that good teaching cannot be defined because the criteria differ for every instructional activities and every teacher. Others suggest that effective teaching consists of instructional and managerial activities (Perrott, 1982:110). According to the same author, teaching is effective when the instructional activities are intended to facilitate the learners' achievement of specific educational objectives directly, such as diagnosing individual needs, presenting information, asking questions and evaluating progress; and the managerial activities on the other hand are intended to create and maintain conditions in which instruction can take place effectively. Some people viewed teaching as the helpings of students learn. For Callahan and Clark (1988:3), teaching is not merely telling something to a group of attendants or learners, nor explaining some topic, nor demonstrating the mastery of an important topic. Furthering their suggestion, they claimed that, in fact, in the process of helping students learn, it might be engaged in telling, explaining, or demonstrating, but using these only as a means of helping students to learn may not be considered as an end. In the final, as a teacher the success could be determined by how well the students have learned. This implies that to be effective in teaching- learning process

a teacher should be able to select the appropriate contents and methods which enable students to learn for themselves.

Since teaching effectiveness concerns the outcomes that reflect the agency of the teacher and the objectives of education, teachers need to be qualified with the subject matter, well equipped with the method of teaching, and above all should be professionally committed. Supporting this idea, Nigussie (2002) suggests that to be effective in teaching, teachers have to have at least both subject matter and professional knowledge. To be effective in teaching, Aggarwal (2001:338) also claimed that, a teacher should have a knowledge of child development, of the materials to be taught and suitable methods; skills that enable him/her to teach, advise and guide his/her learners, community and culture with which he/she is involved, and should be positive without being aggressive. This can generally be called competence in teaching. According to Miller (2003:233), effective teachers can be distinguished based on a wide and deep cadre of instructional strategies, including readiness and ability to judge the extent of students' prior knowledge, broader understanding of teaching act, establishment of appropriate limits of behavior, and delegation of power to promote mutual respect.

However, the concept of teaching effectiveness is not merely focused on teacher's goodness as a person, but due emphasis should be given for his/her behaviors in the classroom. Concerning effective teaching behaviors and characteristics, several researchers and educators have agreed upon the following idea. That is, there are five central and most important concepts and characteristics, which may result in teaching effectiveness, such as, clarity, variety, task orientation, student engagement, and success rate. Furthering their suggestions the educators argue that without the knowledge and skills to present lessons that are clear, that incorporate variety, that are task oriented, and that actually engage students in the learning process at moderate to high success rate, no teacher could be truly effective in producing desirable patterns of student achievement and attitude (Aggarwal, 1996:433-435; Arends et al, 2001:50; Borich, 1988:11-22; Cullingford, 1995:17; Perrott, 1982:2-3; and WCEFA, 1990:49).

To teach effectively, it is inevitable that teachers in general and the new trainees in particular may face many problems. Some of these are difficulty in finding housing and living in unsuitable accommodation, suffering loneliness, lack of adequate training to tackle the concepts and challenging contents incorporated in the text books, and inadequate practical teaching methods (Farrant, 1980:204).

Education, however, is not static. Systems, policies, structures and other matters related to it are not designed once for all. They keep changing so as to keep up with the dynamic nature of society and the ever growing knowledge. As Taye (2004:2) suggested it, the change in education, however, does not mean that educational policies, strategies, structures, systems, and the curriculum at large should haphazardly change every time just for the sake of change. Furthering his suggestion the same author claimed that, "Today, in many parts of the world and particularly in developed countries quality assurance assessments are continuously undertaken so as to check that the system is achieving perceived goals and that quality is not compromised". During such times of change evaluative research is also very essential to ensure that the change serves the stipulated purpose. The concern in this regard is very high when the issue is ensuring the production/preparation of effective teachers to a changing school situation. Given this, research into the effectiveness of the graduates of a new teacher education program would be an obvious need. Having this in mind it is intended to undertake the study in Illubabor Zone by taking into account its remoteness from the interior of the country and the researcher's knowledge about the study area.

1.2: Statement of the Problem

Effective teaching is the basis and pillar of successful learning. It identifies and builds on prior knowledge, makes real-life connection, develops deep understanding, and monitors and reflects on learning.

Effectiveness in teaching depends upon the qualities of teachers. This is because teaching profession requires teachers who are highly trained with subject matter, well equipped with method of teaching, a sound knowledge of all that the students

must know, and above all teachers professional commitments. The question of qualified teachers in turn, is directly related to the selection and preparation of future teachers; the improvement of teachers now in service and the retention of teachers in the profession (Farrant, 1980:170).

In Ethiopia context, henceforth, as the conventional 6-2-4 educational structure followed by at least four years program of teachers education to be a secondary school teacher phased out, and the new 8-2-2 structure which is followed by three years program of teacher education to be a secondary school teacher came into the scene, all education faculties of higher learning institutions in Ethiopia had to admit preparatory complete students (TGE, 1994:14-15; and FDRGE, 1994:14). However, despite the assumption by Ethiopian education and training policy along with its strategy document that the Preparatory Program Complete graduates match with that of the Freshman Program Complete graduates in their teaching effectiveness at the secondary school level, there are widespread comments and informal complaints by students, head teachers, other experienced teaching staff members and educational experts of different levels of Illubabor zone that the Preparatory Program Complete teacher education graduates are not up to the expectation. In this regard it is suggested in MoE (2003: 87) that teacher education graduates should be qualified and able to teach effectively in secondary schools.

Although an attempt was made to find a research works on this most important issue, it is found to be quite limited in the Ethiopian context at large, and there is none in the region under study. For instance, Taye (2004:14) in his study found and recommended that the Preparatory Origin Students seem to have more serious problem in their academic career than the Freshman Origin which seeks synchronized efforts to bring the competence of the group up to the expectation. On the other hand, Girma (2004) has tried to investigate the extent to which the would-be teachers perform the indicators of effective teaching behaviors. He has come up with the finding that both Amharic and English departments' groups performed the key behaviors at the same level in Arbaminch TTI. Nevertheless, the study lacks comparison. Abraham (1993) also had undertaken his investigation on the factors

influencing teaching effectiveness through comparing male and female teachers, and come up with the finding that female teachers teaching effectiveness was highly influenced by their achievement than their counter parts; however, the study did not take the job experience of the teachers into consideration. It emphasized on the sex issue of teachers having different years of services. To the best of the researcher, other than the researches mentioned above, no investigation has been undertaken so far on the teaching efficiency of both Freshman and Preparatory Complete teacher education graduates.

The purpose of this study is, therefore, to compare the teaching effectiveness of the Freshman Program Complete and Preparatory Program Complete teacher education graduates who were assigned to Illubabor zone Senior Secondary Schools. The study also intended to explore the relationships between some background characteristics, such as, ESLCE GPA vis-à-vis EGSECE, and Freshman program grade points vis-à-vis Ethiopian Higher Education Entrance Examination results after completion of preparatory program. Accordingly, an attempt is made to find answers to the following basic questions in this study.

1. Is there any significant difference in teaching effectiveness between Freshman Program Complete and Preparatory Program Complete teacher education graduates? This is in terms of:
 - a. lesson clarity,
 - b. teaching method variety,
 - c. teacher's task-orientation,
 - d. engagement and
 - e. moderate-to-high success rate.
2. Is there any significant difference in the teaching effectiveness of the graduates from different teacher education colleges or faculties of universities in the country?
3. What factors influence the teaching effectiveness of the Freshman Program Complete and Preparatory Program Complete teacher education graduates?

1.3. Significance of the Study

Nothing is known about the teaching effectiveness of Preparatory Program Complete teacher education graduates in comparison with Freshman Program Complete teacher education graduates at the secondary school level in Ethiopia at large and in Illubabor zone in particular. Therefore, it is expected that the application of the results of the findings may help to:

- Indicate the extent of teaching effectiveness of Preparatory Complete and Freshman Complete teacher education graduates, and the factors that may contribute to ineffectiveness, if any, in Illubabor zone. This will help to alleviate the complaints through the synchronized efforts of the concerned bodies.
- Reveal whether the adequacy and effectiveness of the duration of the study for the Preparatory Program Complete is sufficient or not for the teaching profession at teacher education colleges, and hence, the problems raised could be taken into consideration by these institutions for both in-service and pre-service training program in the future.
- Provide teacher education instructors, educational planners and other concerned individuals with the necessary information that they may utilize concerning the quality of education; and
- The study also contributes to initiate further and in-depth research on the problem under study at regional and national level.

1.4. Delimitations of the Study

The study is conceptually delimited to analyzing the differences and similarities between teaching effectiveness of the Freshman and Preparatory Program Complete teacher education graduates in terms of subject matter knowledge, lesson clarity, teaching method variety, teacher's task orientation, learners engagement into the teaching-learning process, and moderate-to-high success rates as well as the helping behaviors identified in Borich (1988:7-17). The study also geographically delimited to Secondary Schools in Illubabor Administrative zone.

1.5. Limitations of the Study

The rigor of the study has been curbed by shortage of time and budget. As a result, for instance, it was not possible to look into the perception and attitude of the two groups of teachers which could have made the finding more comprehensive. Nevertheless, every attempt has been made to make the finding meaningful and informative within the present scope.

1.6. Operational Definition of Terms

Behaviors of teaching refers to the characteristics that the teachers employed to be effective in the teaching-learning process which can be measured in terms of lesson clarity, teaching method variety, teacher's task orientation, and learners engagement into the process, and success rates along with using of students' ideas, structuring, questioning, probing and enthusiasm.

Engagement refers to letting the learners into the actual learning activities, i.e., learning by doing, and checking the progress.

Freshman Program Complete graduate teachers refers to teachers who attended the four years first degree teacher education program after completing the old education system of grade twelve.

Preparatory Program Complete graduate teachers refers to teachers who attended the three years first degree teachers' education program after completing from preparatory schools.

Success rate refers to the organization of lessons based on task-relevant prior learning and effective time management in the classroom.

Task Orientation refers to the teacher's activity towards the development of unit and lesson plans in accordance with text and curriculum guide, classroom management, using both direct and indirect instructional strategies and methods for achieving lesson objectives, and establishing end products, that is, evaluation.

Teaching effectiveness refers to the extent to which the teachers have strived through the application of their knowledge, professional skills and quality of education as it has been measured by directors', schools' department heads', and students' ratings.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This section is devoted to review of literature that has relevance to the study so as to have an insight into the core elements and to briefly expose the readers to some of the major ideas of the subject matter under consideration. The review is organized under the following headings: the concept of effective teaching, behaviors contributing to teaching effectiveness, and variables related to teaching effectiveness as influencing factors.

2.1. The Concept of Effective Teaching

Many educators approached teaching and scientifically attempted so as to formulate a universally applicable concept of teaching. To begin with, teaching is a process of facilitating learning (Farrant, 1980: 168). According to Gage (1978:14) teaching is any activity on the part of one person intended to facilitate learning on the part of another. Furthering his suggestion Gage claimed that teaching is an activity which can be proceed by many different methods that might be grouped according to the number of students being taught (Gage, 1978:14). Aggarwal (2001:52) also stated that teaching is a skill by which different methods and techniques employed which enables the learners to be taught.

Furthermore, other educators such as Amidon and Hunter (1987), Smith (1963), Burton (1963), Clark (1970), Joyce and Well (1972), Gage (1962), Flander (1970) and Green (1971) all as cited in Aggarwal (2001:16-17) have elaborated teaching as- an interactive process in the classroom involves, stimulation, guidance, direction and encouragement of learning; an intimate contact between a more mature personality and less mature one which is designed to further the education of the latter. It also involves an arrangement of situations in which there are gaps and obstructions that an individual will seek to overcome and from which he/she will learn in the course of doing so. Furthering the elaboration it is claimed in Aggarwal (2001:17) that teaching is also defined as a form of interpersonal influence aimed at changing the behavior potential of another person; and it is again also described as an interaction process.

Nevertheless, all of the above mentioned educators could not come up with a single and common definition and concept of teaching. The reason for this is, as suggested in Perrott (1982:1), the criteria become different for every instructional situation and every teacher, and particularly effective teaching has been conceived by these educators being so complex and creative that it defies analysis. However, an attempt was made by Aggarwal to generalize the concept of teaching as it concerned with all the domains of learners' behavior, i.e., cognitive, conative and affective, and above all the development of knowledge and understanding in the learner about a thing, system or process (Aggarwal, 2001:18-19).

From the aforementioned educators' discussion about teaching, it is possible to extract the common important features: process of activities, interpersonal and purposefulness. That is, teaching is a process of an activity and an action which a person can observe it taking place; an interpersonal activity involving interactions between a teacher and students; and it is conducted with a purpose, i.e., directed towards learning. In turn the common features can help to view teaching as an interpersonal, interactive activity, typically involving verbal communication which is undertaken for the purpose of helping students learn or change the ways they can or will behave. Thus, this elaboration seems to be the best for it comprises the common features of the varied concepts of teaching.

As far as teaching effectiveness is concerned, there has been a remarkable diversity among educationalists in the definition of the concept. Some have argued that teaching becomes effective when the learners are taught through indirect method, i.e., teacher's reliance on asking questions, accepting pupils' feelings, acknowledging pupils' ideas, and encouragement rather than being taught by direct teaching, i.e., teacher's reliance on lecture, criticism, justification of authority, and the giving of directions.

However, Flanders (1970) cited in Perrott (1982:2) suggested that both the direct and indirect behaviors are necessary in good teaching. Hence, teaching effectiveness refers to teacher's promotion of learning by directing strategies such

as lecture-explanation to clarify a difficult topic, and teacher's ability to stimulate students intellectually and move them emotionally to instill in them learning and develop suitable skills and attitude which is part of the indirect method. In this regard Aggarwal (2001:25) stated that good teaching is the process of translating educational objectives into action and practice through both direct and indirect method. Others described good teaching as: teacher's accepting his/her responsibility in all the purposes of teaching, and acting as a change agent (Shiundu and Omulando, 1992:216).

Nevertheless, teachers' acceptance of their responsibility by itself may not be resulted in the end product. In addition, teachers need to be qualified in the subject matter; professional skills and they have to have interest towards the teaching profession. In the same vein, educators such as Aggarwal (2001:26), Farrant (1980:170), and Zahorik (1986:21) suggested that effective teaching is based on teacher's mastery over the subject, interest in the subject, ability to relate the content, methods, sequences and pace of his/her work to the individual needs of his/her learners, and teacher's ability to structure knowledge in a way that promoting understanding and managing group of learners.

The other premise is that teaching effectiveness is a comprehensive concept which involves the arrangement and integration of the key and helping behaviors into meaningful patterns to arrive at the achievement of intended learning outcomes. Furthermore, the learners' achievement by itself often depends upon teachers on the job effectiveness. On the top of that, since other concept of teaching effectiveness concerns the outcomes that reflect the agency of the teacher, the objective of education, and the sum total of which is the achievement of the learner, it requires teachers being qualified in the subject matter, well equipped with the method of teaching, and above all professionally commit. In regard to this, educators argue that the concept of teaching effectiveness can be viewed as the instructional activity which is intended to facilitate the learners achievement of specific educational objectives, such as diagnosing individual needs, presenting information, asking questions and evaluating progress; and the managerial activity that intended to

create and maintain conditions in which instructions can take place effectively (Perrott, 1982:110).

On the other hand, Creemers (1994:73) claimed that strong relationship exists between teacher behavior such as the ability of teachers, their motivation, their engagement and their expectations, and the achievement of the students. Supporting the above idea, Nigussie (2002:24) also suggested that to be effective in teaching teachers have to have at least both subject matter and professional knowledge.

In the same vein, Aggarwal (2001:338) also claimed that to be effective in teaching a teacher should have a knowledge of child development, of materials to be taught and suitable methods; skills that enable him/her to teach and guide his/her learners, community and culture with which he/she involved, and should be positive without being aggressive which is generally can be said being competent in teaching.

Thus, effective teaching identifies and builds on prior knowledge, makes real life connection, develops deep understanding and reflects on learning. Furthermore, the concept of teaching effectiveness may not merely focused teacher's goodness as a person, but due emphasis also should be given for his/her teaching behaviors in the classroom in order to measure on the job effectiveness.

2.2. Behaviors Contributing to Teaching Effectiveness

Several researchers have come up with different ideas and suggestions about the effective teaching behaviors and characteristics of successful teachers. For instance, Barr (1958) cited in Ornstein (1995:59) suggested that:

...an effective teacher is characterized by: resourcefulness, i.e., teacher's creativeness, originality initiative, imaginative, adventurousness and progressiveness; intelligence, i.e., understanding, mental ability, intellectual capacity, foresightness and common sense; emotionally stability, i.e. self control, dignity, steadfastness, emotional maturity, adjustment, constancy, loyalty, easy-going realism in facing life, stable and integrated character; and considerateness, i.e., appreciativeness, kindness, friendliness, sympathy, good-naturedness, helpfulness, patience, politeness, thoughtfulness and tolerance.

Furthermore, it is suggested by the same author that, successful or effective teachers can be identified through their cooperativeness, refinement, objectivity, dominance reliability, buoyancy and attractiveness. However, other research findings reveal that approximately there are ten teacher behaviors showing promising relationships to the desired student outcomes, primarily as measured by achievement in classroom tests and standardized tests. Five of these behaviors have been consistently supported by research studies (Rosenshine, 1971b, 1973; Dunkin & Biddle, 1974; Walberg, 1986; and Brophy & Good, 1986 as cited in Borich, 1988:7), and the five others have less support but appear logically related to effective teaching (Borich, 1988:12).

The first five behaviors, according to Borich (1988:8), are identified as key behaviors, because their presence is considered to be essential for effective teaching, and the second five are identified as helping behaviors that can occur in various mixtures to help implement the key behaviors. Researchers and educators argue that, without the application of these key and helping behaviors in the classroom teaching-learning process, no teacher could be truly effective in producing desirable patterns of student achievement and attitude (Aggarwal, 1996:433-435; Arends et al, 2001:50; Borich, 1988:11-22; Cullingford, 1995:17; Perrott, 1982:2-3; and WCEFA, 1990:49).

2.2.1. The Five Key Behaviors

The most important and key concepts or behaviors and skills which can be described as central to modern definition of effective teaching are: lesson clarity, instructional variety, teacher task orientation, student engagement in the learning process, and moderate-to-high success rate. According to Borich (1988:11), no teacher could be effective in teaching without the knowledge and skill of these main concepts of teaching effectiveness. Accordingly, these key behaviors or main concepts of teaching effectiveness are elaborated in the following way.

2.2.1.1. Lesson Clarity

Lesson clarity refers to how clear and understandable a presentation is to the class. Being clear means being understood by the learners, and that may depend as much on what a teacher does prior to teaching a lesson. Here the concept clarity does not lead to the spoon feed style of teaching which hinders the creativity of the learners. It rather encourages and motivates them towards the conceptualization of things critically. In this regard Borrich (1988:7-8) stated that, if a teacher teaches with a high degree of clarity, he/she will spend less time going over material and have his/her questions answered correctly the first time, and it allows more time for instruction.

Some of the major indicators of lesson clarity according to the same author are - informing the learners about the lesson objectives; providing learners with an advance organizer; checking for task-relevant prior learning at the beginning of the lesson and re-teaching, if necessary; giving directives slowly and distinctly; knowing the ability levels of the learners and teaching accordingly; using examples, illustrations, demonstrations to explain and clarify the contents of the lesson; and providing review or summary at the end of each lesson. Furthering his suggestion Borich (1988:297), claimed that the first three of the aforementioned behaviors, i.e., learners being informed about the lesson objectives, the provision of learners with an advance organizer, and checking for task relevant prior learning should occur at the beginning of the lesson, while the remaining four, i.e. giving directives slowly, knowing learners' attention spans and going through accordingly, using visual aids, and providing review or summary at the end are those to be implemented during a lesson.

Research findings indicate that clarity in teaching helps students understand better, work more accurately, and successfully (Burden, 2003:179). Therefore, one characteristics of teaching effectiveness is teacher's provision of the learners with very clear and explicit directions, instructions and expectations. If teachers are constantly asked by their students to repeat questions, directions, and explanation,

or if their students do not understand their (teachers') expectations they are not exhibiting clarity in their instructional behavior. Hence, several educators have repeatedly advised that to be clear in the classroom, teachers should inform the learners the objectives; placing a lesson in perspective of past and/or future lessons ; check for task relevant prior learning at the beginning of the lesson; give directions slowly and distinctly; know the ability levels of students and teach to those levels; use examples, illustrations and demonstration to explain and clarify; and provide a review or summary at the end (Borich, 1988:298; Burden, 2003:197; Muijs and Reynolds, 2001:6; Bishop, 1985:106; Eggen and Kauchak, 1996:6; and Sadker and Sadker, 2003:81).

Furthermore, Eggen and Kauchak (1996:6) added that students are more likely to become involved and derive more satisfaction and enjoyment from an activity that has a definite aim. Similarly Burden (2003:179) claimed that informing the learners of an instructional objective in advance helps the students know what is expected of them and can act accordingly as they work on classroom activities, assignments, and other tasks. Informing learners of the objective conveys the expectation teachers have for them and replaces any unrealistic fears or expectations with realistic ones, and if they (the learners) know what to expect and if it seems reasonable to them, they will want to pay attention and find out more (Borich, 1988:299). Therefore, informing learners of the lesson as part of clarity is very essential to be effective in teaching.

It is reported that another major indicator of lesson clarity is an advance organizer which gives the learner a conceptual review of what is to come and helps prepare to store, label and package the content for retention and later use. According to the same author mentioned above, providing learners with an advance organizer can be also referred as the placing of a lesson in perspective of past and/or future lessons. It is also said that advance organizers are used as a means of making information meaningful to students. On the other hand Bishop (1985:113) suggested that teaching strategy need to be organized in advance in the light of psychological and pedagogical principles with a view to achieving specific goals. Hence, to be

successful in teaching, and to meet intellectual goals and learning outcomes in particular, teachers should organize in advance effective learning experiences.

The other major indicator of clarity is checking for task relevant prior learning at the beginning of the lesson. Here, it is said that the major purpose of daily review and checking is to give emphasis for the relationship between lessons so that students remember previous knowledge as a logical extension of content already mastered. Reviewing and checking at the beginning of a lesson also is the most efficient and timely ways of finding out if the students have mastered task-relevant prior knowledge sufficiently to begin a new lesson; if not, the missing content could be re-taught (Borich, 1988:148; Sadker and Sadker, 2003:81; and Robinson, 1980:24).

Giving directives slowly and distinctly is considered as one of the major indicators of clarity. It is believed that applying the method helps students to be clear for what they are supposed to do. Otherwise, inundating too much information and directions too fast confuses students (Anderson, 2004:24; and Sadker and Sadker, 2003:82).

Knowing the ability levels of the learners and teaching to those levels is another major indicator of clarity. It is suggested that the work a teacher gives to his learners to do must be properly adjusted to their knowledge and powers, and to the stage of general development which they have reached. If the work to be done is too easy, the learners have no feeling that is getting on; they do not get the satisfaction of overcoming difficulties, and so they lose interest. On the other hand, if it is too difficult, they will be discouraged; they will lose confidence in their own abilities, and they will lose interest. They like to be able to do their work well and to 'get it right' (Aggarwal, 2001:58).

Another major indicator of clarity is using examples, illustrations, and demonstrations. It is thought that the use of examples is basic to teaching and is a skill commonly used in clarifying explanations. Effective teaching of new concepts, relationships or principles depends on the teacher's ability to use examples and

seek examples from learners in such a way as to comprehend these new concepts (Callahan and Clark, 1988:9; and Perrott, 1982:37). Furthermore, it is also suggested that the teacher is expected to know how to perform a skill. To do so, teacher explanations and demonstrations can be very effective. In this process show-how procedures are usually more useful than tell-how procedures are (Arends, 2001:50; and Sadker and Sadker, 2003:81).

The last major indicator of clarity is ending each lesson with a review or a summary. Borich (1988:298) claimed that the teacher should use key abstractions, repetition, or symbols to help students efficiently store and later recall content in providing review or summary at the end of each lesson.

In general, clarity is the precision of teacher's communication about the desired behavior. Clarity in teaching helps students understand better, work more accurately, and are more successful. Effective teachers exhibit a high degree of clarity by giving clear and explicit directions, instructions, and expectations. However, if the teachers are constantly to repeat the explanations of the lesson, or if the students do not understand the teacher's expectations, the teachers are not manifesting clarity.

Thus, effective teaching cannot be determined only by the lesson clarity. It is the outcome of a combination of all key behaviors and catalytic behaviors. Henceforth, ideas forwarded by some educators and researchers regarding the importance of variety will be considered.

2.2.1.2. Instructional Variety

Instructional variety refers to the variability or flexibility of delivery during the presentation of the lesson. Variety involves the use of learning materials, equipments, displays, and space in the classroom and includes the extent to which their visual variety can actually encourage student involvement with lesson content. Accordingly, Borich (1988:301) claimed that as a teacher becomes effective in teaching if he/she uses attention gaining devices; shows enthusiasm and animation

through variation in eye contact; voice and gestures; various modes of presentation; uses a mix of rewards and reinforces; incorporates student ideas or participation in some aspect of the instruction; and Various types of questions.

It is reported that using attention-gaining devices is the first ingredient of a good lesson plan. When the teachers recall that the attention - gaining devices with which a lesson begins can take many forms including pictures, demonstrations or experiments, and the use of instructional technologies; or those less spectacular ones such as posing a challenging questions, presenting a bewildering situation, and bringing about the silence that accompanies a unique or interesting visual display. All these stimulate the learners differently than they have become accustomed to during the previous activity. It is also important to present a change from the instructional stimuli to which the learner has grown accustomed from a previous activity. This not only will wake up the receptive modalities of sight and sound, but also, and just as importantly, it will stimulate the cognitive processes associated with them. Without this awakening and conscious change from the mood and tempo of earlier activity or class, the learners' attention may never fully be either on the teacher or the lesson Attention-going devices, therefore, help create natural cycles of highs and lows that make life in classrooms more interesting and less regimented (Borich, 1988:302; Good and Brophy, 2000 cited in Burden, 2003: 106).

Furthering the suggestion by the same author, i.e., Burden (2003), it is stated that diagrams, illustrations, scale models, and films are types of attention getting aids. These devices can be used to appeal to the students' sense of vision while the oral presentation is appealing to their sense of hearing (Borich, 1988:123). In the same view, Argyle also stressed that the use of focusing help enhance communication. Focusing is the teachers' way of internationally directing pupils' attention. According to him, this control is mainly accomplished by the use of verbal statements, specific gestures or movements or some combinations of the two (Argyle, 1970 cited in Perrott, 1982:29).

The other indicator of variety is enthusiasm and animation. It is stated that enthusiasm is an expression of excitement and intensity. It is quite obvious that a teacher who is enthusiastic and vibrant is more entertaining to observe than an unenthusiastic teacher. However, teacher enthusiasm has also related to higher student achievement and hence, teaching becomes effective. Enthusiastic teachers are often described as stimulating, dynamic, expressive, and energetic. They are committed to the students and the subject matter (Boirich, 1988:17; Good and Brophy, 2000 cited in Burden, 2003:179).

Similarly, other scholars agreed that enthusiasm can be conveyed in a variety of ways. These include the use of animated gestures, eye contact, voice inflection and movement around the room. They further said that a teacher who is enthusiastic in the classroom often managed to develop enthusiastic student (Keller, 1983 cited in Burden, 2003:127; Good and Brophy, 2000 cited in Burden, 2003: 179). In this regard, Rosenshine's review of studies of teachers' enthusiasm and pupil's achievement gives clear evidence that animated behavior on the part of the teacher stimulates the attending behavior of pupils and enhances learning (Rosenshine, 1970 cited in Perrott, 1982:28).

The next indicator of variety is varying mode of presentation. It is suggested that a teacher varies instructional approaches and present the subject matter in an interesting novel way. After capturing students interest at the start of a lesson, the teacher has to maintain interest through varied approaches such as lectures, demonstrations, recitations, practice and drills, reviews, panels, debates, group projects, inquiry approaches, discovery learning and problem solving, role playing and simulation, gaming, and computer assisted instruction (Burden, 2003:119; Farrant, 1980:176).

It is suggested that the teacher has to vary instructional methods. Otherwise, monitory breeds inattentiveness, and the repeated and perhaps exclusive use of one approach will soon results in a classroom of bored students. Moreover, student achievement is increased when a variety of materials and techniques are used (Good and Brophy, 2000 cited in Burden, 2003:104).

To support the aforementioned ideas, research finding has been indicated that the use of variety in instructional techniques and materials, the frequency and variety of reinforcement used, and the types of feedback given to students pay rich dividends in terms of increased student achievement (Brophy & Good, 1986 cited in Borich, 1988:8).

Using a mix of rewards and reinforces are other indicators of variety. It is suggested that behavior is shaped by its consequences and by what happens to the individual immediately afterward. The systematic use of reinforces, or rewards can shape behavior in desired directions. Behavior becomes weaker by punishment as well as if it is not followed by reinforcement (Aggarwal, 1996:50-51).

Using various types of questions is one of the indicators of variety. It is thought that a question that limits a response to a small number of responses or to a single response is called convergent, direct, or closed question. This type of question teaches the learner to respond in a limited, restrictive manner. It is used at the knowledge, comprehension, and application levels of behavioral complexity. Whereas a question that has many right answers or a broad range of acceptable responses is called a divergent question. It is used at the analysis, synthesis, and evaluation levels of behavioral complexity (Perrott, 1982:42-46; Borich, 1988:304).

Incorporating students' ideas or participation is the last major indicator of variety. It is hoped that teachers should show an interest in students' personal lives that will help students appreciate them as human beings. Moreover, the teachers should also ask students for help and advice when a need actually exists and the students can give valid assistance. Such requests help to break barriers between teacher and student and create a friendlier atmosphere in the classroom. If teachers want to become a positive part of students' pictures of how to best satisfy their needs, they must encourage students to express themselves and then listen carefully to what they say (Borich, 1988:304).

Hence, variety is an essential behavior that enhances teaching-learning process. It serves as great tonic for creating fresh environment both for teachers and students. If the teachers do not use variety in a proper way, the students will feel fatigue, lack of attention and monotony. Thus, the above mentioned social evils can be overcome by the appropriate use of variety. Without variety and flexibility to capture the interest and attention of students, it is unlikely that any other key behavior, however well executed, will have an effect on them. The next key behavior that should be taken into consideration is the teacher task-orientation.

2.2.1.3. Teacher Task-Orientation

Teacher task orientation refers to how much classroom time the teacher devotes to the task of teaching the subject matter. It indicates the question of how much material gets presented, learned, and assessed is crucial opposed to how much time is delegated to procedural matters. In this regard researchers like Rosenshine (1983) and Brophy and Evertson (1976) in Borich (1988:9) suggested that the classrooms in which teacher-students interactions focus more on intellectual content than on process issues (such as how to use materials or classroom rules and procedures) are more likely to have higher rates of achievement. Accordingly, some of the chief indicators of being task oriented are stated by (Borich, 1988). These are - developing units and lesson plans that reflect the most relevant features of the curriculum guide or adopted text; handling administrative and clerical interruptions efficiently, stopping or preventing misbehavior with a minimum of class disruption; selecting the most appropriate instructional model for the objectives being taught; and establishing cycles of review, feedback, and testing.

The other chief behavior that indicates teacher-task orientation is handling administrative and clerical interruptions efficiently. It is thought that managing the behavior of student or assisting them in managing their own behavior is a challenging and on-going task for the classroom teacher. In general, if boredom and frustration levels can be minimized and an engaging, and supportive learning environment is provided, students will choose to participate actively and positively (Callahan & Clark, 1988:9).

The next chief indicator of teacher task-orientation is stopping or preventing misbehavior with a minimum of class disruption. It is believed that appropriate class control and discipline is one of the most important characteristics of a successful or effective teacher. A good teacher is one who can control his/her class not through fear or high handedness but by virtue of his/her interest in the learner, good command on the subject matter and the ability to present interestingly and effectively. The learners also appreciate good teaching and cooperate with the teacher in the teaching-learning process (Aggarwal, 1996:57-58; Muijs and Reynolds, 2001:55-56).

Selecting the most appropriate instructional model for the objectives being taught is another major indicator of teacher task-orientation. It is commented that a teaching model is an overall plan, or pattern for helping students to learn specific kinds of knowledge, attitudes, or skills. A teaching model has a theoretical basis or philosophy behind it, and also encompasses a set of specific teaching steps designed to accomplish desired educational outcomes (Sadker & Sadker, 2003:104). In this regard, Borich (1988:160) suggested that to be effective the teacher should plan to use direct instruction for the Type-1 content that includes facts, rules and action sequences; and indirect instruction for Type-2 content which includes concepts, patterns and abstractions.

Establishing cycles of review, feedback and testing is the major and the last indicator of teacher task-orientation. In other words, it is granted that it involves establishing cycles of weekly and monthly review and testing cycles that are built around clearly definable goals. These goals are the types of products that should be made visible to students and toward which classroom activities must gradually be geared with increasing intensity, enthusiasm, and expectations. The high point of the cycle is just before the expected event and the low point, marks the beginning of a new cycle, immediately afterward (Borich, 1988:308).

In general, educators commented that task oriented teachers could have an appropriate amount of time lecturing, asking questions, and engaging the students

in activities directly related to the material that is to be learned. Achievement is reported to be higher in classrooms of task-oriented teachers than in classrooms of teachers tending to be off-task (Anderson, 1995: 185; Wang & Walberg, 1991:95; Anderson, 1992:25; Stanley, 1991:; Eggen & Kauchak, 2001:30; and Berliner & Bittle, 1995 cited in Burden, 2003:178).

According to Borich (2000) cited in Burden (2003:178), task oriented teachers are goal - oriented, and they plan instructional strategies and activities that support their goals. Furthering his suggestion he stated that task-oriented teachers also have a high but realistic set of expectations for their students.

Therefore, it is revealed that teacher-task orientation is the amount of classroom time that the teacher devotes to the task of teaching on academic subject. Effective task-orientation involves various indicators. If the teacher puts into practice the aforementioned indicators of task-orientation properly, the learners can easily understand the lesson. To make teaching effective, the appropriate use of task-orientation alone is not enough. As it is mentioned earlier effective teaching is the outcome of the combination of all key behaviors, i.e., engagement in the learning process is of paramount importance to enhance students learning.

2.2.1.4. Students Engagement in the Learning Process

Student engagement in the learning process refers to the amount of learning time devoted to an academic subject. It is related to a teacher's task orientation and content coverage. A teacher's task-orientation should provide students the greatest possible opportunity to learn the material. From the amount of time a teacher devotes to teaching a topic is the time his/her students will be actively engaged in learning the materials (Borich, 1988:9). On the other hand it is also reported that student engagement is one prominent characteristic of deeper teaching which develops learner's deeper understanding of the subject matter through discussion and critical thinking of the subject matter's concepts (Sadker & Sadker, 2003:110).

According to Berliner (1979) and Fisher et al. (1980) cited in Borich (1988:10), engagement rate is the percentage of time devoted to learning when the student is actually on-task, engaged with the instructional materials and activities being presented. It also suggested that the students may not be engaged, i.e., may not actively think about, work with, or use what is presented although a teacher is task-oriented, providing maximum content coverage and communicating high expectations.

As stated by the same author, i.e., Borich (1988), the major indicators of students engagement in the learning process are - eliciting the desired behavior; providing opportunities for feedback in a non-evaluative atmosphere; using group and individual activities as motivational aids; using meaningful verbal praise; and monitoring seatwork and checking for progress.

2.2.1.5. Moderate-to-High Success Rate

Moderate-to-high success rate is one of the key behaviors of effective teaching that refers to the rate at which students understand and correctly complete exercises. Research findings indicated that level of difficulty of a subject matter can be measured by the rate at which students understand and correctly complete exercises pertaining to the material to be taught. One possible level of difficulty is that *high success*, in which the learner understands the task and makes only occasional, careless errors. Another is *moderate success*, in which the student has partial understanding but makes some substantive errors. The third is *low success*, in which the student does not understand the task at all (Fisher et al., 1980 cited in Borich, 1988:11). Furthering his suggestion the same author reported that teacher task-orientation and student engagement are closely related to level of difficulty as measured by success rate. Hence, organizing and planning instruction that yields moderate-to-high success rates but at the same time is not boring, repetitive, or time wasting is a key behavior for teaching effectiveness.

In sum, moderate-to-high success rate is one of the key behaviors that will produce mastery of the lesson content; provide an opportunity for the students to apply

learned knowledge in some practical ways, such as answering questions or solving problems. This will allow the individual elements or pieces that are learned to fall into place, thereby providing a crucial final step in the learning process. Therefore, if teachers devote sufficient time to this stage of learning, it will be found crucial for students and for those who may be slow learners. Thus, to be effective in teaching giving emphasis only for the key behaviors alone may not be sufficient. Hence, paying attention to the catalytic behaviors is also essential.

2.2.2. Helping Behaviors Related to Effective Teaching

The catalytic or helping behaviors of effective teaching are very important elements that provide means of achieving the key behaviors. The helping behaviors include the teacher's use of student ideas, structuring, questioning, probing and enthusiasm.

2.2.2.1. Teacher's Use of Students' Ideas

Use of student idea refers to acknowledging, modifying, applying, comparing, and summarizing students' words. It is believed that any one of these activities could be useful in achieving one or more of the key behaviors. Depending on the ways of applying the helping behaviors, the key behaviors can be variously affected. Hence, use of students' ideas will be one of the several ways to achieve the more general teaching behaviors, and to become effective in teaching.

In this regard, Flanders (1970) cited in Borich (1988:12) described the components of teacher's use of students' ideas in the following manner.

- Acknowledging student's statement - using the student's idea by repeating the nouns and logical connectives expressed by him or her.
- Modifying student's statements - using the student's idea by rephrasing it or conceptualizing it in the teacher own words.
- Applying student's statements - using student's idea to teach an inference or taking the next step in a logical analysis.
- Comparing student's words - using the student's idea by drawing a relationship between it and ideas expressed earlier.

- Summarizing student's statements - using what was said by an individual student or a group of students as a recapitulation of concepts.

Supporting the ideas mentioned above, Robinson (1980:26) stated that the teacher must be able to arrange the environment in such a way that learners interact with it to be able to participate fully in the teaching-learning process. As a result of teacher's use the learner's ideas, in turn, participation of the learners will be encouraged more and thus teaching becomes effective. Knight and Waxman (1991:252) also suggest that effective teaching requires teachers to understand students' thought processes and then to facilitate their students' mediation of both content and instruction. In addition, Leming (1991:?) also reported that valuing students' opinions and problem-solving styles, and willing to interact freely with students in an exchange of ideas should be a behavior of good teaching.

2.2.2.2. Structuring

Structuring refers to teacher comments made at the start or end of a lesson for the explicit purpose of organizing what is to come or summarizing what has been done before. Structuring provides an advance organizer for the students; it aids their understanding and retention of the material. Doenau (1987) & Gage (1976) cited in Borich (1988:13) suggested that structuring has found to be related to student achievement and is useful catalyst for increasing the key behavior. Farrant (1980:170) also claimed that when the teacher structures his teaching in relation to students' abilities, interests and needs, teaching becomes effective.

2.2.2.3. Questioning

Questioning as an element of catalytic behavior is an art of asking the right questions at the right time, and this art must be included among the most important teacher behavior. Because research findings show that questioning encourages different mental processes, arouses curiosity, encourages creativity, and increases students' engagement (Smith, 1990:374; Walberg, 1991:35).

Questioning can be categorized into - direct or indirect questions; low level or high level questions; convergent or divergent questions; closed or open questions; and fact or concept questions. However, Borich (1988:15) suggests that the questions can be generally categorized under two major groups, i.e., content questions such as, direct questions, low level questions, convergent questions, closed and fact questions; and process questions such as, indirect questions, high level questions, divergent questions, and open and concept questions. In addition Sadker and Sadker (2003:93) suggested that good questioning is at a very core of good teaching. Chauhan (1983:143) also claimed that asking questions about content or procedure it the intent that student answers create important classroom interaction.

It can in general, be recognized that the mental processes of analyzing, synthesizing, and decision making are among those most frequently needed in our adult lives, and especially content questions are also related to students' achievement, and hence, good questioning makes teaching effective.

2.2.2.4. Probing

Probing refers to various statements a teacher makes to encourage students, to elaborate upon an answer, either their own or another's. Probing as a helping behavior often is used to shift a discussion to some higher thought level.

Beginning a lesson with a simple fact question, and then, by electing clarification of student responses, soliciting new information, or redirecting an answer, moving to a higher level involving generalizations, abstractions, and the drawing of inferences lead to the promotion of inquiry, or independent discovery of the content of the lesson (Ryan, 1973 as cited in Borich, 1988:17).

2.2.2.5. Enthusiasm

Enthusiasm refers to the teacher's exhibiting vigor, involvement, excitement, and interest during classroom presentations through vocal inflection, gesturing, eye contact, and animation. In this regard Kysilka (1988) cited in Smith (1990:374) suggests that one characteristic of good teaches is being enthusiastic about learning.

2.3. Some Important Factors Affecting Teaching Effectiveness

There are various factors that contribute to being incompetent of newly recruited teachers in teaching. Among them the major and very important factors related with the variables of the current study are teacher related factors. These include: teacher's subject matter knowledge, problems of teachers teaching skills, and teacher's lack of commitment towards the profession. It is ascertained that to be effective in teaching teachers have to have a package of these variables.

Many studies have been conducted to examine teaching effectiveness in line with the aforementioned factors. Thus, all of the conclusions of the studies indicated that no teacher could be effective in teaching without adequate training of professional skills, subject matter knowledge, and commitment, attitude and interest for the profession (Farrant, 1980:204-206; Aggarwal, 2001:26-27; Roa and Reddy, 2005:35; and Anderson, 2004:22). Similarly, Timperly and Parr (2004:12) add that effective teachers get all of their students to learn most of what they are supposed to learn. Thus, each of the factors mentioned above are elaborated in the following way.

2.3.1. Teachers' Subject Matter Knowledge and Interest in the Profession

One of the major qualities that the teachers need to possess, to teach effectively is a sound knowledge of the subject they teach. Beside this possession of subject matter knowledge, teachers are required to have strong interest and commitment towards the profession. Educators like Lovegrove (1961:12) and Tucker and Drucker (1988:44-46) have suggested that to be successful in their work, teachers have to have deep interest and positive attitude to the profession, and they must be knowledgeable about the facts, concepts, basic ideas and generalizations of the subject they teach. According to Grossman (1991:207), when teachers have the discretion to do so, they may simply skip over topics they do not understand well themselves. Conversely, teachers may spend more time on topics or subjects about which they are most knowledgeable. Similarly, research findings show that when teachers know the materials to be taught well, they are more likely to use various

methods of teaching. Whereas they are less familiar with the material to be taught, their level of lesson clarity is minimized, and they imposed an assignment and other much burden on the learners which lack direction and sufficient guidance. Subject matter knowledge also influences the nature of teachers' questions (Carlsen, 1988 cited in Grossman, 1991:207). Furthermore, Anderson (1992:26) add that to be effective in teaching, teachers must have sufficient mastery of the subject that they teach. Therefore, subject matter knowledge provides teachers with detailed instructional routes and key behaviors of effectiveness in teaching-learning process.

Moreover, teachers need to be clear about the purpose, the nature and the benefits of the materials to be taught. On this line, Fisher (1995:147) stated that teachers could be able to exhibit an impressive range of competencies in the subject matter knowledge they teach. Hence, teacher's lack of subject matter knowledge and interest towards the profession greatly affects teaching effectiveness.

2.3.2. Problems of Teachers' Teaching Skills

To be effective in teaching, and to attain high achievement gains in the classroom, there should be well-developed professional skills. According to Andrew (1995:55) professionally developed teachers are characterized by - being highly organized, being planned carefully had unambiguous objectives and high expectations for their students. In the same vein, Rao and Reddy (2005:35) suggest that to teach effectively, teachers have always been required to have professional skills.

To the contrary, teaching becomes ineffective if teachers lack self awareness. According to Cullingford (1995:12) lacking of self awareness is not knowing what to do, not bearing any criticism, however constructive, and reacting as every body to blame. Thus, teaching becomes affected by their lack of professional skills.

On the other hand, to be effective in teaching teachers need to have knowledge of child development, multiple teaching strategies and variety of assessment strategies. In this regard Stoll and Fink (1996:152) state that when teachers are professionally fulfilled, demonstrate job satisfaction, skills and knowledge, and

have a strong feeling of efficacy around their practice, they are more likely to motivate learners to want to learn. However, if a teacher fail to do so teaching becomes ineffective.

2.3.3. Teachers' Lack of Commitment to the Profession

Professional commitment of teaching can be displayed and expressed by the teachers' strive to accomplish all necessary things for the learners what they have promised to do during their recruitment and training at their respective colleges. Among which - cultivating the cognitive, creative, productive and appreciative potential of the learners through appropriately organized delivery methods of lesson is the main concern of effective teaching that seeks commitment to implement it.

According to Farrant (1980:169), professionally committed teachers can establish a productive classroom atmosphere through good organization and carefully planned teaching create specific kinds of climate settings for different lessons; create excellent teacher-student relationships; teach in a relaxed manner with no sign of nervous strain; and can deal with problems promptly before they get out of hand. However, teachers often seem to lack commitment to their profession. They do not prefer working in very remote rural schools because of poor quality of life in rural areas, lack of quality of accommodation, inadequate classroom facilities and school resources, lack of access to leisure activities, health concern, and lack of opportunities for skill development in other relevant fields of study to teaching.

Professionally committed teachers, nevertheless, can overcome what so ever problem exists, and adapt themselves to the working area they have been assigned, so as to become effective in teaching. In this regard Derebssa (2004:197) suggested that if teachers are committed to their profession, and actively participate in curriculum implementation, it is likely that teaching would be effective. Otherwise, its effectiveness would be affected. This may be so because people's emotion as well as rationality is inevitably the element of change. Stoll and Fink (1996:73) also add that since teaching effectiveness depends on teachers' commitment, their full participation is essential to the success of their effort at the school level. Therefore,

teacher's commitment to their profession plays a pivotal role for the implementation of school curricula effectively.

2.4. Factors Negatively Affect Effective Teaching in the Ethiopian

Context

For years, the delivery system of education was not appropriately organized, structured and systematized in such a way that the learners benefited from it. On this line, the Ethiopian education and training policy document TGE (1994:2) declared that there was absence in the delivery method of education that can develop student's knowledge, cognitive abilities and behavioral change by level, to adequately enrich problem solving ability and attitude. Being taken into consideration of the problems stated above, though an attempt was made to alleviate the problem, teaching at secondary schools seems to be lacking effectiveness. Thus, most of the effects are related to teachers' on-the-job effectiveness.

According to Amare (1998:294), teacher's lack of interest to the profession, economic problem of the teacher, teacher's lack of qualification in teaching, being unethical of the teachers, low salary, teaching load, teacher's lack of experience, and inappropriate teacher-student relationship are found to be the main factors affecting teaching effectiveness of the teachers in Ethiopian context.

Moreover, the preparation of teachers, and the retention of teachers in the teaching profession are the prevailing teacher-related problems in the country. In this regard, Marew (2000:17-20) argued that today the academically least able, dissatisfied with becoming teachers and eager to shift to other profession are forced to join the teaching sector. Ambissa (1997:59-60) also claimed that teachers with low academic achievement in national examination results are most likely being dissatisfied with the professional courses, and hence tend to be ineffective in teaching.

As far as the preparation of the will be teachers is concerned, Marew and others (2000:17) noted that the gap is created in the practice teaching, i.e., the restriction of the trainees to nearby secondary schools. Furthering their suggestion Marew and others claimed that, had the trainees participated in teaching of rural secondary schools during their practice teaching, it would have helped them to mature professionally and socially. This could be achieved by directly participating in community activities as well as taking problems of the community in the research work which let them to be effective in their future task. Mendida (2001:52) also states that large classes have an adverse effect on teachers work and students learning which result low academic achievement of the learner. Hence, the job effectiveness of the teacher becomes in question in the country's context.

On the other hand, the quality and effectiveness of teacher education is another problem. According to the report of ministry of education that is described in TESO document, MOE (2004:7) teacher educators in the country are characterized by - shortage of teaching approaches and methods, being assigned rather than selected following competition, and low level of commitment to the teaching. Thus, their students in turn ill prepared for teaching profession, lack interest and commitment to the profession, did not display the appropriate effective teaching behavior. Darge (2000:80) also suggests that as the teachers run counter to the qualities of teaching that appreciated by their students they tend to be ineffective in teaching. Therefore, teaching effectiveness in the Ethiopia context is greatly affected by the factors mentioned above.

CHAPTER THREE

RESEARCH DESIGN AND METHODS

This section is devoted to describing the design and instruments of the study, and the procedures adapted in collecting data. The major concern of the study is to compare the teaching effectiveness of the Freshman Program Complete (FPC) and Preparatory Program Complete (PPC) teacher education graduate teachers, and to identify the factors that influence the practical teaching of these groups in Illubabor Zone. Therefore, a comparative design has been employed.

3.1. Procedures of Sample Selection

The sample study includes Freshman Program Complete (FPC) and Preparatory Program Complete (PPC) teacher education graduates as the subjects of the study; and their respective department heads, directors and students as sources of data.

In this research, the sample schools in the zone were selected by the help of purposeful sampling technique. According to Patton (1987:52), in purposive sampling the units of the samples can be selected by the researcher who attempts to obtain a sample that appears to him/her to provide rich information. There are different stages for selecting information-rich cases purposefully; the criterion sampling is the one that meets some pre-determined criterion of importance. To Patton (1987:56), criterion sampling is applied to identify cases from quantitative questionnaires for in-depth follow-up. Thus, the researcher set three criteria to select information-rich sample secondary schools in the zone. Primarily, the completeness in level (standard) of the school (i.e., school having grades 9-10) has taken into account. This has been done to select sample student respondents from grade ten and above. Secondly, the availability of the subject teachers in the school was the main reason for the application of this method. This is because since the study is comparative design, the availability of comparable groups (Freshman Origin and Preparatory Origin teachers) was taken as a criterion. Finally, the familiarity of the researcher with the study area has been taken into consideration. Accordingly, out of twenty-five senior secondary schools in the zone, fourteen have

been selected through purposive sampling. However, schools which have only up to grade nine, i.e., Sibbo, Nonno-Salle, Didu, Becho, Chewaka, Meko-Sachi and Elemo were not selected. This is because of the newness of the learners for the schools, the teachers and for the secondary school education system at large. Schools that are devoid of either of both groups', i.e., FPC and PPC graduate teachers, such as Abdi-Bori, Kone, Borecha and Didesa have been not selected.

The subjects under investigation, i.e., FPC and PPC teacher education graduates have been selected on their availability, and by the help of stratified random sampling technique respectively. This is because the former group having equivalent job experience to the latter ones becomes very limited in number in the zone, and the latter group becomes relatively very many. The respondent directors, vice directors (unit leaders where there are no vice directors), and department heads of those teachers whose schools were observed, were selected based on their availability; whereas the respondent students were selected by the help of stratified random sampling technique. Sample schools, subjects of the study, directors, department heads and students have been described in Table 1.

Table 1: List of sample schools with their respective subjects and sources of Data such as Directors and/vice directors, Department heads and Students

S. No.	Sample Schools	Teachers under investigation				Department heads		Directors and vice directors		Students	
		FPC		PPC		N	%	N	%	N	%
		N	%	N	%						
1	Bure	3	100	2	30	5	100	1	100	35	15
2	Ouka	1	100	2	30	3	100	1	100	21	15
3	Gore	1	100	4	30	5	100	2	100	95	15
4	Mettu	1	100	1	100	2	100	2	100	35	15
5	Noppa	2	100	2	30	4	100	1	100	19	15
6	Algie*	2	100	4	30	5	100	2	100	43	15
7	Suppe	1	100	1	30	2	100	1	100	36	15
8	Darimu **	4	100	5	30	6	100	2	100	98	15
9	Hurrumu	3	100	3	30	6	100	1	100	63	15
10	Yayo*	3	100	3	30	5	100	2	100	75	15
11	Chora	2	100	1	30	3	100	2	100	63	15
12	Dega	2	100	4	30	6	100	2	100	53	15
13	Bedelle	1	100	1	30	2	100	2	100	185	15
14	Gechi	1	100	2	30	2	100	3	100	29	15
Total	14	27	100	35	30	57	100	23	100	850	15

FPC- Freshman Program Complete teacher education graduates.

PPC- Preparatory Program Complete teacher education graduates.

*N.B- * one department head has been observed and rated two teachers*

*** One department head has been observed and rated three teachers, one has been observed and rated two teachers, and the rest (four) have been observed and rated one each in the classroom.*

As it is mentioned earlier, the subjects under investigation are selected based on both their availability and stratified random sampling techniques. The total population of the study, according to Illubabor zone education office, was 253 teachers in number. Among these about 15% of them were expected to be Freshman Program Complete teacher education graduates of 2006 and 2007 academic years. Hence, 27 teachers of Freshman Program Complete teacher education graduates, among them one is female, are selected on the basis of their availability in the sample study of the schools, and 30% of the Preparatory Program Complete teacher education graduates were selected. In this regard Cohen and Manion (1994:89-90) noted that a sample size of 30% from the population is appropriate if the number of population is known. Accordingly, the sample was

selected by the help of primarily, proportionate stratified random sampling, and secondly, the elements of the study were selected by the help of systematic random sampling ($k=N/n$ of each stratum). Fallik, (983:273), notes the relevance of this method of such studies.

The samples of the data sources, on the other hand, were undertaken. All directors and vice-directors, in the schools where they were available were selected, and they were 23 in number. All department heads of the teachers under study-52 males, 5 females, and in sum 57 were selected. These two aforementioned samples were selected based on their availability; whereas the respondent students were selected by the help of both stratified and systematic random sampling techniques. The number of these student respondents was - 508 males 342 females, and in sum 850 (see Table 1 for the detail).

Table 2: Description of Sample Subjects with their Respective Schools

S. No.	Schools Selected	Teacher education graduates assigned in 2006 & 2007 academic years & Samples selected											
		Teachers Assigned						Sample Selected					
		FPC			PPC			FPC			PPC		
		M	F	T	M	F	T	M	F	T	M	F	T
1	Bure	3	-	3	6	1	7	3	-	3	2	-	2
2	Ouka	1	-	1	5	3	8	1	-	1	1	1	2
3	Gore	1	-	1	13	1	14	1	-	1	4	-	4
4	Mettu	1	-	1	1	-	1	1	-	1	1	-	1
5	Noppa	2	-	2	6	2	8	2	-	2	2	-	2
6	Algie	2	-	2	12	1	13	2	-	2	3	1	4
7	Suppe	1	-	1	3	-	3	1	-	1	1	-	1
8	Darimu	4	-	4	17	1	18	4	-	1	1	-	1
9	Hurumu	3	-	3	9	1	10	3	-	3	3	2	5
10	Yayo	2	1	3	8	2	10	2	1	3	2	1	3
11	Chora	2	-	2	3	-	3	2	-	2	1	-	1
12	Dega	2	-	2	10	2	12	2	-	2	3	1	4
13	Bedelle	1	-	1	3	-	3	1	-	1	1	-	1
14	Gechi	1	-	1	6	1	7	1	-	1	2	-	2
Total	14	26	1	27	102	15	117	26	1	27	28	7	35

N.B FPC - Freshman Program Completed graduates.

PPC - Preparatory Program Completed graduates

As it is indicated in Table 2, all the Freshman Program Completed teacher education graduates were selected. This is because their number was very limited. On the other hand, the number of Preparatory Program Completed teachers was comparatively very high. Hence, the researcher decided to take 30% of them from

each school by the help of both proportionate stratified, and then systematic random sampling. In this regard, Kumar (1999:158-59) suggested that when the number of elements from each stratum in relation to its proportion in the total population is intended to be selected, a proportionate stratified sampling is appropriate.

3.2. Instruments of Data Collection

Multiple instruments of data collection were used in this study. It is thought that using more than one data collection techniques has an advantage to combine the strengths and minimize the weaknesses or to correct some of the deficiencies of any one source of data. In this regard, Denzin (1978) as cited in Teshome (1998:46-47), says that because each method of data collection reveals different aspects of empirical reality, multiple methods should be used in every investigation as a rule. Further, Denzin (1978) in Teshome (1998) argues that triangulation such methods, such as the use of observation checklist with rating scale, questionnaires, and documents build checks and balances to a study design. Teshome (1998:47) on his part argues that the combination of such method provides a precise summaries and comparisons for a study. Accordingly, to secure reliable valid data for the study of such kind, the use of multiple data gathering instruments is unquestionable. Bearing these ideas in mind, the present investigation is conducted by using three types of instruments: observation checklist with rating scale, questionnaires for three types of respondents and documents (coding format for archives of the subjects under investigation).

3.2.1. Observation Checklist with Rating Scale

Observation checklist is the best approach to collect the required information about the behavior. In this regard Kumar (1996:105-106) argues that when the researcher is more interested in the behavior than in the perception of individuals, observation is an appropriate method to collect data. Best (1993:224) also suggests that during the intervention of class session, observation is the best method to collect data. However, observation checklist does not show the extent to which behavioral

activities happened. Hence, it is decided by the researcher to use observation checklist with rating scale. The instrument was adapted with little modification from Borich, (1988). It had two sections. The first section was prepared to acquire information on some main issues, which include observer's name with location, name of teacher observed, the group to which the observed teacher belonged, and the round, date and period of observation (see Appendix-I for details).

The second section of the instrument was a close-ended type. This section was divided into five categories, and it had twenty-eight questions. These questions were adapted from the stated book and modified to acquire the basic and necessary information on the teaching effectiveness of the subjects to be observed.

The department heads of the respective teachers to be observed were made to undertake the observation process. This was because they are more knowledgeable, experienced and proficient enough in teaching skills than the subjects under investigation. According to the suggestion of the respective principals, the selection of the department heads was based on their academic standard, experience, commitment and ethics. Therefore, their being made to undertake the observation, and rate the teaching effectiveness of the subjects under investigation was sound.

3.2.2. Questionnaires

Three types of questionnaires were used - school directors' and vice directors, teachers' and students' questionnaires. All of them were developed from different literatures, which had relevance to the items of, or main issues of the observation checklist mentioned above. The directors' and vice-directors' questionnaire was aimed to secure necessary information on the teaching effectiveness of the groups under study with the aim to get their comparative judgment of the two groups of teachers (FPC and PPC) effectiveness. The views of the respondents on factor that may affect the on- the- job effectiveness of the graduates under study, measures that should be taken to resolve the problems of being ineffective (if any), and possible suggestions in the recruitment, preparation and deployment of the would be teachers for the secondary school in the future were asked in the open ended

section. The teachers' questionnaire contained questions with reference to their personal background, characteristics and views about the profession on which they are assigned. The students' questionnaire was also aimed at identifying the extent of their satisfaction on the teachers' day-to-day activity in the classroom teaching-learning process. All the items in the questionnaires as well as in the observation checklist with rating scale were interrelated to each other in order to cross-check the views of different types of respondents on the case under study (see the detail Appendix II,III and IV).

3.2.3. Documentary Sources

Archives made up one of the most important data sources in this study. They were used for obtaining information about the background of each teacher education graduate under study, prior to his/her assignment to the job. The archives were received from each district education office, and then confirmed by zone education office (see Appendix V for the detail).

3.3. Pilot Study

The objective of the pilot study was to identify the reliability and validity of the observation checklist and the questionnaires. For the purpose of pilot study, one secondary school in the zone, which is not included in the sample, was selected. This is Elemo Senior Secondary School in Doreni district, Illubabor zone. The study was carried out from February 12 to 19, 2008. From the stated school, one Freshman Program Complete and four Preparatory Program Complete teacher education graduates were selected based on the availability and systematic random sampling respectively. Woreda education office's supervisor was selected and trained to undertake the observation together with the researcher. By the help of systematic random sampling, twenty-nine student-respondents were selected, among them twenty were males and nine were females. As it is mentioned earlier, the observation checklist was adapted from Borich (1988) and little modification was made upon it. Based on the advisor's comment and suggestion, little modification was made on its direction, and an item was briefed with example.

The stability (Test-retest) method of reliability measurement was employed to test the observation checklist. Thus, the two sessions' observation and rating of the teachers' teaching effectiveness was calculated and has been found to be $r_{xy}=+0.85$ (see Appendix VI the detail). This was translated as there was very high and positive relationship between the two sessions' observation, and rating of the teachers' teaching effectiveness.

In this regard several researchers argue that when the value of a correlation coefficient is located between +0.80 and 1.00, and including the upper and lower limit of the figures, it can be said to be very high and positive correlation (Best, 1993:308; Edwards, 1954:156; and Yalew, 2006:340). Furthering their suggestion the stated authors argue that if the correlation coefficient is very high and positive, it is said to be consistent in measuring what was intended to be measured.

In the same way, the split half method of reliability measurement was employed to test the internal consistency of both teachers' and students' questionnaires. Accordingly, the results have been found to be $r_{xy}=+0.77$ and $r_{xy}=+ 0.87$ respectively. According to the researchers' suggestion mentioned earlier, the obtained results were translated as high and positive correlation and reveal very high and positive correlation of the internal consistency of the items in the questionnaires respectively (see Appendix VII and VIII the details). On the other hand, the inter-raters agreement on the case under study was also examined through the application of Cronbach alpha (Coefficient alpha) method, and the result has been found to be $\alpha=0.96$. The result shows that there was high agreement between the raters or the judges of different data collection instruments- observation checklist with rating scale, directors' questionnaires and students' questionnaire about teaching effectiveness of the groups under investigation (see Appendix IV the detail).

With regard to observation checklist with rating scales', and questionnaires' content validity, the supervisor, director and two department heads of the pilot study area were made to assess and evaluate the items against the purpose they are

supposed to serve, and the readability, clarity and the adequacy of the items in the instruments mentioned above. Based upon the comments acquired from the pilot test area and the writer's further examination, one item from the teachers' questionnaire was rejected and six items or questions were added on the students' questionnaire.

After ascertaining their validity, reliability, and in general their appropriateness for the case under study, the instruments were made ready for the final study. The observation checklists with rating scale were given for 57 department heads of 62 teachers selected for the study. They were also provided with adequate training regarding the purpose, the method of rating and the items incorporated in the instrument. The questionnaires were distributed for 23 directors and vice directors, 62 teachers' (subjects of the study), and 850 students. Finally, about 98.68% of response rate was found.

3.4. Methods of Data Analysis

Different Statistical procedures and methods were used to answer the basic questions of the study, Minimum and maximum scores, mean, as well as t-test were used to answer the first basic question; and percentages, One-way Analysis of Variance and Pearson product moment correlation coefficient were used to answer the second and the third basic questions respectively. Furthermore, a qualitative approach has been employed as a supplementary method of data analysis and presentation that were organized from the open-ended items of the questionnaires.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter is devoted to presentation, analysis and discussion of data collected through observation checklist with rating scale, questionnaires of different types and documentary sources to answer the basic questions set in the first chapter of this study.

4.1 Background of the Respondents

Two types of respondents had taken part in the present study. These were - first, the subjects of the sample study, i.e., Freshman Program Complete (FPC) teacher education graduates and Preparatory Program Complete (PPC) teacher education graduates assigned to senior secondary schools of Illubabor zone. Second, the data source judges or raters and respondents. This in turn includes - department heads, directors and vice directors of the schools under study, and students of sample subjects. Thus, to have a clear picture about the present and past status of the sample subjects under study, the data were gathered and organized in this section. Some features or characteristics of the data source respondents' background also presented. Therefore, the next table, Table 3 and 4 deal with the background of the respondents that had taken part in the study.

As indicated in Table 3 the majority of both groups, i.e., 96.3% of Freshman Program Complete and 80% of Preparatory Program Complete teacher education graduate respondents were males. It is also depicted in the table that all of the Freshman Program graduates' academic achievement in Ethiopian School Leaving Certificate Examination (ESLCE) was 3.00 and above whereas only 2.9% of the Preparatory Program Complete teacher education graduates' achievement in Ethiopian General Secondary Education Certificate Examination (EGSECE).

Table 3: Background of the Sample Subjects of the Study

S. No.	Characteristics	Category		f*	%	Total	
		Identity	Sex			f*	%
1	Group	FPC**	Male	26	96.3	27	100
			Female	1	3.7		
		PPC***	Male	28	80	35	100
			Female	7	20		
2	ESLCE Result	3.00 and above	Male	26	96.3	27	1
			Female	1	3.7		
		2.6 -2.8	Male	-	-	-	-
			Female	-	-		
		2.00 – 2.40	Male	-	-	-	-
			Female	-	-		
3	EGSECE Result	3.00 and above	Male	1	2.9	1	2.9
			Female	-	-		
		2.14 – 2.86	Male	20	57.1	24	68.57
			Female	4	11.4		
		2.00 and below	Male	7	20	10	28.57
			Female	3	8.6		
4	Freshman course GPA	Above 2.00	Male	21	77.8	22	81.5
			Female	1	3.7		
		2.00	Male	-	-		
			Female	-	-		
		Below 2.00	Male	5	18.5	5	18.5
			Female	-	-		
5	EHEEQC Result	Above average	Male	1	2.9	1	2.9
			Female	-	-		
		Average	Male	1	2.9	1	2.9
			Female	-	-		
		Below average	Male	26	74.2	33	94.2
			Female	7	20		
6	Teaching experience before joining University	FPC 2 years & below	Male	-	-	-	-
		FPC 2 -5 year	Female	-	-		
		PPC < 2 years	Male	-	-	-	-
		PPC 2 - 5 year	Female	-	-		

Note: *f - frequencies

** FPC - Freshman Program Complete teacher education graduates.

*** PPC - Preparatory Program Complete teacher education graduates.

The table also indicates that the CGPA of Freshman Program Complete graduates in freshman courses Vis-à-vis Ethiopian Higher Education Entrance Qualification Certificate (EHEEQC) result of the Preparatory Program Complete teacher education graduates. The majority of the former group, i.e., 81.5% of the freshman complete teacher education graduates had CGPA of above 2.00 in the freshman

courses. The rest 18.5% of the group had below average of the CGPA. On the other hand, about 94.2% of the latter group had below average of EHEEQC result while joining different universities' teacher education college of the country. Only 2.9% of them had above average of the stated score, and the rest 2.9% of them had average score of EHEEQC. Regarding the teaching experience prior to their higher education program, it is show in the table that no one of the groups had it.

To obtain full data about the sample subjects of the study, various information-rich sources such as classroom observers then raters, i.e., department heads school director's and vice directors', and students' respondents were used. Table 4 is devoted for this.

Table 4: Background of Data Source Respondents

S. No.	Respondents Type	Sex	f	%
1	Department heads of the sample subjects under study	M	52	91.2
		F	5	8.8
		T	57	100
2	School directors and vice directors	M	23	100
		F	-	-
		T	23	100
3	Students of the sample subjects under study	M	508	59.8
		F	342	40.2
		T	850	100
Total Respondents		M	583	62.7
		F	347	37.3
		T	930	100

As it is shown in the Table 4, 91.2% of the department heads of the sample subjects under study were males, and 8.8% of them were females. None of the school directors and vice directors of the subjects under investigation was female. Almost more than half of the respondent students of the study, i.e., 59.8% of them are males, and the rest 40.2% of the students, respondents are females. Among the information rich data sources, 62.7% are males, and 37.3% are females.

4.2. Comparison of the Teaching Effectiveness of Freshman Program Complete and Preparatory Program Complete Teacher Education Graduates

To investigate the differences and similarities (if any) of the teaching effectiveness of Freshman Program Complete (FPC) and Preparatory Program Complete (PPC) teacher education graduates, as it is mentioned in the methodology part of the current study, different instruments were used to gather information about the subjects under study. Accordingly, the data gathered through observation checklist with rating scale is presented as follows.

Table 5: Distribution Statistics of Rating Scale Scores for the FPC and PPC Groups' effectiveness in teaching as rated by department heads, directors and students

Source of Data	Group	N	Max. Score	Min. Score	\bar{x}	SD	t-value
Department Heads	FPC	27	110	68	91.81	10.83	3.59*
	PPC	35	103	51	80.29	13.6	
Directors	FPC	20	170	96	141.35	19.5	4.12*
	PPC	20	155	20	114.05	22.33	
Students	FPC	27	96	47	78.52	11.62	2.33*
	PPC	35	96	47	70.37	15.03	

* $p < 0.05$

As it is depicted in Table5, all department heads of the respective teachers under study, i.e., 57 department heads have been observed and rated each of the FPC and PPC teacher education graduates' teaching effectiveness. That is why the number in the table indicates the quantity of the teachers under investigation. In the same vein, the learners of the respective teachers have been judged each of these teachers under study, whereas among 23 Secondary School directors and vice directors 20 have been rated all of the teachers under study. Therefore, one can observe from the above table that a well spread of teaching effectiveness as rated by the department heads, directors and students of the teachers under study, which can possibly be said that the instruments are discriminating between more effective and less

effective teachers in teaching. To begin with, the range of the score as measured through the stated instrument the minimum score of the Freshman Program Complete teacher education graduates is 68 whereas the latter group's i.e., the Preparatory Program Complete teacher education graduates' minimum score becomes 51 out of 112 for each group.

The table also shows that the FPC teacher education graduates performed higher than the PPC teacher education graduates scores, (91.81 and 80.29, 141.35 and 114.05, and 78.52 and 70.52 respectively).

Furthermore, to check whether the difference of the two groups mean scores are statistically significant, and mainly to the first basic question, mean scores of the groups as judged or rated by their respective department heads, directors and students were compared using independent samples t-test.

From Table 5, it is possible to note that the FPC teacher education graduates significantly outscored their counter parts, (i.e., the PPC teacher education graduates) in terms of their on-the-job effectiveness as measured or rated by department heads, directors and students ($t=3.59, 4.12$ and 2.33 respectively and $P<0.05$). Hence, it can be conclude that FPC teacher education graduates were rated to be more effective than PPC teacher education graduates by the department heads, directors and students.

Further, data presentation and analysis with regard to the teaching effectiveness of the two groups in terms of each of the key behaviors, (i.e., lesson clarity, teaching method variety, teachers' task-orientation, learners' engagement into the teaching learning process, and moderate-to-high success rate) was undertaken.

4.2.1. Comparison of the Teaching Effectiveness of FPC and PPC Teacher Education Graduates in Terms of the Five Key Behaviors

As it is mentioned earlier in the proceeding sub-topic of this section, different data sources had rated the teaching effectiveness of the groups under study in terms of

five key effective teaching behaviors among which lesson clarity of the teacher is the first one. Table 6 indicates the ways by which department heads rated the case under investigation. Therefore, the numbers indicated under “N” in the table represent the quantity of the observed teachers under study by their respective department heads.

Table 6: The Comparison of the FPC and PPC teacher education graduates’ teaching effectiveness in terms of the Five Key Behaviors as rated by their respective department heads

S. No.	Key Behaviors	Graduates’ Group	N	\bar{x}	SD	t-value
1	Lesson Clarity	FPC	27	3.48	0.89	2.42*
		PPC	35	2.91	0.89	
2	Teaching method variety	FPC	27	3.07	0.93	1.68*
		PPC	35	2.62	0.97	
3	Teacher’s Task-Orientation	FPC	27	3.37	0.83	2.11
		PPC	35	3.08	0.92	
4	Engagement	FPC	27	3.27	0.84	1.666
		PPC	35	2.86	0.88	
5	Moderate-to-high success rate	FPC	27	3.33	0.86	1.96*
		PPC	35	2.86	0.88	

* $p < 0.05$

As can be observed from Table 6, the Freshman Program Compete teacher education graduates scored more than their counter parts as far as the mean scores are concerned. The difference between the two groups of teachers has been found to be statistically significant on three of the effective teaching key behaviors, namely, lesson clarity, teaching method variety and moderate-to-high success rate

The key behaviors, in turn, have been measured in terms of specific performance indicators (items). For instance, the items used to indicate teaching effectiveness in area of lesson clarity were - informing learners about the lesson objectives; providing learners with an advance organizer; checking for task-relevant prior learning at the beginning of the lesson; giving directives slowly and distinctly; knowing learners’ ability level and teaching at or slightly above their current level of functioning; using illustrations to explain and to clarify content in text and workbooks; and providing review or summary at the end of each lesson. The items used to measure the teaching method variety of the teacher, on the other hand, were

- showing enthusiasm through variation in eye contact, voice and gesture; varying modes of presentation; using mix of rewards and reinforce; incorporating students' ideas in some aspect of the instruction; and varying types of questions and probes. The items used to measure teachers' extent of moderate-to-high success rate are establishing unit and lessons organization sequences that reflect task-relevant prior learning; administering correctives immediately after initial response; dividing lesson into small and easily digestible pieces; planning transitions to new content in small, easy-to- grasp steps; and establishing momentum. All these items of the key behaviors mentioned above, indeed, require teachers' knowledge of subject matter and professional skills to apply them effectively in the teaching-learning process. Thus, according to the comparison made by the respective department reads, the PPC graduates seemed lag behind in applying them in their teaching.

On the other hand, according to the report shown in the table, there is no statistically significant difference between the FPC and PPC teacher education graduates in performing the key behaviors such as teachers task-orientation and engagement ($P>0.05$). The items used to measure teacher's task-orientation are - developing unit and lesson plans and teaching in accordance with the text and curriculum guide; handling administrative and clerical interruptions efficiently; stopping misbehavior with a minimum of disruption to the class; selecting the most appropriate instructional methods for objectives being taught; and establishing schedule in which major classroom activities begin and end with clearly visible events. On the other hand, the items used to measure teachers' engagement in the teaching-learning process are - providing for guided practice; using individualized or attention getting strategies to promote interest among the learners; using meaningful verbal praise; and monitoring seatwork by circulating and frequently progress. Looking at the mean scores on these two key behaviors, it can be said that the two groups are almost average in terms of their effectiveness.

To cross-check the extent of teachers' teaching effectiveness directors, vice directors and students have been made to judge the teachers' performance. The results are also depicted by the help of Tables 7 and 8.

Table 7: Comparison of the FPC and PPC teacher education graduates' teaching effectiveness in terms of the Five Key Behaviors as rated by their respective directors and vice-directors

S. No.	Key Behaviors	Graduates' Group	N	\bar{x}	SD	t-value
1	Lesson Clarity	FPC	20	3.95	1.02	2.96*
		PPC	20	3.00	1.01	
2	Teaching method variety	FPC	20	3.80	0.91	2.50*
		PPC	20	3.05	1.02	
3	Teacher's Task-Orientation	FPC	20	3.95	0.99	1.45
		PPC	20	3.50	1.02	
4	Engagement	FPC	20	3.85	0.97	2.17*
		PPC	20	3.20	0.97	
5	Moderate-to-high success rate	FPC	20	3.90	0.89	2.87*
		PPC	20	3.04	0.99	

* $p < 0.05$

From Table 7, one can see that the Freshman Program Complete teacher education graduates outperformed their counter parts ($P < 0.05$) in all the key behaviors indicating effective teaching except teacher's task-orientation. These are - lesson clarity, teaching method variety, engagement, and moderate-to-high success rate.

Some very important items in the key behaviors are - overcoming the challenges of subject matter knowledge, power of expression fluency, and teaching confidence at all levels of secondary school education including preparatory level. These items are categorized under lesson clarity in addition to the items of the same key behavior mentioned earlier in the department heads' observation checklist with rating scale.

The directors and vice directors have also measured the teaching method variety of the teachers under study by the help of the following items. There are - varying modes of presentation; using attention gaining devices, showing enthusiasm; varying types of questions and probes; incorporating students' ideas in some aspect of instruction; and using a mix of rewards and reinforces.

The items used to measure the key behaviors, such as the extent of task-orientation with respect to students, and providing the learners with the opportunity to learn;

engaging students in the learning process; and the extent of moderate-to-high success rate are similar to the department heads observation checklist's items mentioned under Table 6.

According to the directors and vice directors judgment, the FPC group has been performed better than the PPC group all the key behaviors indicating teaching effectiveness mentioned so far. Nevertheless, the PPC group has been found to be greater than their counter parts in performing one item of lesson clarity, i.e., providing review or summary at the end of the lesson.

Table 8: Comparison of the FPC and PPC graduates' teaching effectiveness in terms of the Five Key Behaviors as rated by their respective students

S. No.	Key Behaviors	Graduates' Group	N	\bar{x}	SD	t-value
1	Lesson Clarity	FPC	27	3.51	0.83	2.12*
		PPC	35	2.98	1.03	
2	Teaching method variety	FPC	27	3.46	0.89	1.44
		PPC	35	3.10	0.95	
3	Teacher's Task-Orientation	FPC	27	3.18	0.93	0.92
		PPC	35	2.95	1.03	
4	Engagement	FPC	27	3.26	0.96	0.92
		PPC	35	3.02	1.02	
5	Moderate-to-high success rate	FPC	27	3.04	1.01	1.41
		PPC	35	2.66	1.17	

* $p < 0.05$

Table 8 depicts that the learners judgment of their respective teachers in performing the five key behaviors, i.e., lesson clarity, teaching method variety, teachers, task-orientation, engagement, and moderate-to-high success rate along with the helping behaviors. In the table above the numbers indicated under "N" represent the quantity of the teachers as each of them observed and rated by their respective students. According to the report organized from the responses of the stated above respondents' and the mean scores shown in Table 8, the former group of graduates, i.e., the FPC group has been performed all the key behaviors indicating effective teaching better than their counter parts.

Nevertheless, the value of test level of significance, ($t= 1.44, 0.92, 0.92$ and 1.41 at one-tailed level of significance $\alpha = 0.05, df=60$) calculated for teaching method variety, teacher's task-orientation, engagement, and moderate-to-high success rate respectively have been found to be lower than the critical or table value, i.e., 1.671 . Hence, according to the judgment of the learners one can include that there is no significance difference between both groups of graduates in performing the stated key behaviors excluding lesson clarity ($P>0.05$).

Furthermore, the result indicates that, the former group of graduates outperformed their counter parts, ($t=2.12$, at one-tailed test level of significance $\alpha = 0.05, df=60$). This indicates that the FPC teacher education graduates significantly higher than the PPC teacher education graduates in performing the lesson clarity ($P<0.05$).

From the presentation of Tables 6, 7 and 8 one can see that there is statistically significant difference between the two groups of graduates in applying all key behaviors indicating effective teaching. However, slight difference is observed from the judgment of different respondents. For instance, the judgment of department heads show that the FPC group found to be significantly higher than the PPC in lesson clarity, teaching method variety and moderate-to-high success rate. According to the directors' judgment with the exception the key behavior teacher's task-orientation the former group also found to be significantly outperformed the latter ones. Furthermore, the students' response show that the former group performed significantly higher than their counter parts in lesson clarity. Nevertheless, according to the learners' response, statistically there is no significance difference between the two groups in performing the other key behaviors such as teaching method variety, teacher's task-orientation, engagement and moderate-to-high success rate.

Besides, the views and judgments of the respective department heads, directors and vice directors, and the students the responses of teachers under investigation are presented by the help of Table 9.

Table 9: The Extent of Performing the Key Behaviors of Effective Teaching as Rated by the Teachers, i.e., FPC and PPC Themselves

S. No.	Key Behaviors	Graduates' Group	N	\bar{x}	SD	t-value
1	Lesson Clarity	FPC	24	2.70	0.68	1.04
		PPC	28	2.46	0.71	
2	Teaching method variety	FPC	24	2.83	0.62	2.41*
		PPC	28	2.25	0.81	
3	Teacher's Task-Orientation	FPC	24	2.71	0.68	0.00
		PPC	28	2.71	0.68	
4	Engagement	FPC	24	2.54	0.71	-0.74
		PPC	28	2.71	0.68	
5	Moderate-to-high success rate	FPC	24	2.71	0.68	1.695*
		PPC	28	2.32	0.69	

* $p < 0.05$

As it is indicated in Table 9, the mean values of FPC group in lesson clarity, teaching method variety, and moderate-to-high success rate - are greater than the PPC. The mean score of both groups in teacher's task-orientation is equal whereas the latter group's mean score in engagement is greater than the former ones.

Concerning the test level of significance, ($t= 2.41$ and 1.695 at one-tailed test level of significance $\alpha= 0.05$, $df=50$) for teaching method variety and moderate-to-high success rate respectively, the calculated values become higher than the critical value, i.e., 1.682 . Therefore, the results show that the FPC teacher education graduates significantly higher than the PPC teacher education graduates in performing teaching method variety and moderate-to-high success rate ($P<0.05$).

On the other hand, the report also shows that there is no significance difference between the two groups of graduates in performing the key behaviors such as lesson clarity, teachers task-orientation and engagement ($P>0.05$).

From the aforementioned discussion it is possible to suggest that the FPC and PPC graduates had not been stated clearly the extent to which they have been performing the key behaviors indicating effective teaching. Nevertheless, in the key behaviors of teaching method variety and moderate-to-high success rate, the FPC has been found to be significantly higher than the PPC group.

4.3. Teaching Effectiveness of the Teachers under Study in Relation to the Universities from which they graduated

The teaching effectiveness of both the Freshman Program Complete and Preparatory Program Complete teacher education graduates were investigated in relation to the universities from which they graduated (see Appendix V for the detail)

According to the data obtained from the documentary sources, 22.3% of the teachers under study were graduated from Jimma University; 20.96% of them were from Dilla; 16.13% of them were from AAU; 12.9% of them were from Haramaya; 8.1% of them were from Bahr Dar; another 8.1% of them were from Mekelle; 4.8% of them were from Hawassa; and 3.2% of them were from Gondar. The other each 1.6% of them was from Arbaminch and Adama University; and it is found that only 1 person each graduated from these two universities. Hence, they were not included in the comparison of inter universities so as calculating mean value and variance is impossible for an individual. From the other eight universities mentioned earlier both the FPC and PPC teacher education graduates (from each) were found (see Appendix XI the detail). The comparison of inter-universities graduates' teaching effectiveness is shown in Table 10.

Table 10: Summary of the teaching effectiveness scores of FPC and PPC teacher education graduates from eight Universities

Source of Variance	SS	df	MS	F
Between groups (major)	1641.65	7	234.5	1.24*
Within groups (error)	9842.4	52		
Total	1484.05		189.3	

*p > 0.05

From Table 10, one can see that F (critical value at df=7, 52 $\alpha= 0.05$) was resulted in 2.20 which was greater than the calculated value of F=1.24. Therefore, it can be interpreted that there is no statistically significant difference in on-the-job

effectiveness of the graduates from different teacher education colleges or faculties of universities in the country. This implies that graduates from various universities were found to be almost equally competent in terms of their on-the-job effectiveness.

With regard to the main issue of the study, the FPC teacher education graduates of these eight universities outperformed their counter part or friends graduated from the same faculty or college of education in a university.

The computation of the teaching effectiveness mean scores of FPC teacher education graduates of these eight universities shows that as the group's result becomes higher than that of their counter part. For instance, the FPC group's mean score who graduated from Jimma was 90.4 whereas the PPC from the same university was 71.55, for those who graduated from Dilla, the FPC group's mean score was 93 whereas of the PPC group was 76.55; those from AAU, the FPC group's was 87 and of the PPC group's was 74.2, the FPC group of Haramaya graduate's mean score was 102 whereas of their counter part was 79.8. Hawassa's FPC group graduates', mean score was 98 whereas of their counter part was 93, and Gondar's FPC group graduates' score was 89, and the counter part's was 83. The FPC graduates from the universities mentioned above had higher mean score in teaching effectiveness than their counter part. However, in the case of Mekelle University's graduates, the PPC teacher education graduates' mean score in teaching effectiveness was greater than their counter part's mean score (see Appendix XI the detail).

4.4. Comparison of the Freshman and Preparatory Program Complete Teacher Education Graduates' Teaching Effectiveness in terms of Some Factors

Several factors could affect the teaching effectiveness of the groups under study. However, very selected and prioritized crucial factors affecting the effectiveness of the groups under investigation were reported by information-rich data sources of

the study. In this study the factors affecting the on-the-job effectiveness of the groups were described as the independent variable whereas the graduates teaching effectiveness was treated as the dependent variable. Table 11 is devoted to the expression of the independent variables.

Table 11: Factors affecting teaching effectiveness of the graduates as rated by directors and vice directors

Items indicating Teaching Effectiveness	Group of the Graduates	Extent of Graduates teaching effectiveness										Total No. of Respondents N=20	
		**5		4		3		2		1		N	%q
		f	%	f	%	f	%	f	%	f	%		
Knowledge of professional skills	FPC	14	70	3	15	2	10	-	-	-	-	19	95
	PPC	-	-	5	5	12	60	2	10	-	-	19	95
Commitment towards the profession	FPC	8	40	8	40	4	20	-	-	-	-	20	100
	PPC	-	-	6	30	10	50	2	10	2	10	20	100
Co-operation with the head teacher, principal and other staff members	FPC	8	40	7	35	3	15	-	-	2	10	18	90
	PPC	4	20	5	25	7	35	2	10	2	10	18	90
Energy in teaching and school activities	FPC	8	40	8	40	3	15	1	5	-	-	20	100
	PPC	3	15	8	40	5	25	3	15	1	5	20	100

**5 - 1 represent - Excellent, V. good, Good, Fair and Unsatisfactory

As it is shown in Table 11, 70% of the directors reported that Freshman Program Complete teacher education graduates were at the extent of excellent in the knowledge of professional skills which could be considered as the main teacher related factor in the teaching-learning process, whereas 60% of these directors rated the latter graduates knowledge of professional skills at an average level. In addition, these directors reported that the former group graduates were more effective in teaching. Furthering their report they had reason with that the former group had better academic background, i.e., they were high achievers in national examination result, have acquired adequate subject matter knowledge in their four years duration of campus life, and their being matured physically, socially and academically let them to be excel their counter part.

In this regard, the PPC teacher education graduate participant in the study also has expressed in the open-ended question of the questionnaire the challenges that have been faced him while he undertake his day-to-day activity as described below.

Multi-faceted challenges faced us while in the teaching – learning process. Among these - lack of necessary educational materials, failure to go with educational technology, i.e., Plasma TV transmission often broken, high living standard, problem language proficiency, large class size, being unable to adapt with the environment in which the schools are located, and shortage of experience at work.

Others from the same group also have been found to be shared the ideas mentioned above.

The former group, i.e., the FPC graduate teacher also has reported that:

Lack of the necessary educational facilities, inconvenient classroom for the implementation of active learning, and being overloaded of the teachers greatly hamper the on-the-job effectiveness.

The other factor influencing the dependent variable of the study as reported by the directors was teachers' commitment towards the profession. Thus, 40% the judges rated the former group at the extent of excellent; an other 40% of them rated the same group at the extent of very good, and the rest 20% of the judges rated this group at the extent of average. To the contrary, most of the directors rated the latter, i.e., the PPC teacher education graduates at the extent of average and less than average. Furthermore, there directors had reported about the groups commitment towards the profession in open ended section of the questionnaire that most of the newly recruited graduate teachers lack interest towards the profession, the case is especially very serious among the Freshman Program Complete teacher education graduates.

According to the subjects under study's report, the FPC teacher education graduates lack interest whereas the PPC teacher education graduates are found to be with deteriorating interest towards the teaching profession. In this regard, one FPC graduate has reported that:

Teaching profession is tiresome. Moreover, the learners lack ethics, teachers salary scale is not attractive, the environment in which the schools located are not conducive, and lack of incentive lead to be reluctant to stay in the profession.

The PPC teacher education graduates, on the other hand, have expressed that – “what so ever problem is there, we are highly interested towards the teaching profession”. Nevertheless, if the profession persistently lacks attention of the concerned bodies, inevitably this interest may get deteriorated.

The other factors indicated in the table were - graduates co-operation with the head teachers, principals, vice principals and other senior staff members; and energy in teaching and school activities. According to the raters view, the former group is slightly higher than the latter one in energy of teaching and school activities whereas no significant difference is reported in co-operation with others in school matters.

Besides the directors' and the sample subject's under study view, the documentary sources were analyzed in order to have a clear picture of the subjects' independent variables influencing their effectiveness. Accordingly, the academic achievement in national examination was one of the views raised by the directors in this section, and hence, the Ethiopian General Secondary Education Certificate Examination (EGSECE) result of the PPC teacher education graduates has been taken as the academic background of the latter group which was represented by “x” as an independent variable, and the teaching effectiveness of the group as rated by their respective department heads, represented by “y” as a dependent variable. Then the correlation coefficient has been found to be $r_{xy} = +0.77$. Thus, the result indicates that there was high and positive correlation of academic achievement and teaching effectiveness of the latter group (see Appendix- XII).

When the correlation coefficient is squared it gives us $r^2 = 0.59$ (59%), which means the group's less effectiveness in teaching was most probably because of low academic achievement from the very beginning by 59% whereas the rest 41% might be resulted by the other factors according to the argument of several

researchers (Walberg, 1984 as cited in Best and Kahn, 1993:308-309; Yalaw, 2006:343).

Concerning the adequacy of the three years higher education program, 85.7% of the PPC teacher education graduates have expressed that:

The three years program of higher education to be a secondary school teacher does not allow the will be teacher to develop his/her subject matter knowledge, and to some extent the professional skill too. This is because; very important courses were merged into a single course with minimum credit hours, are being offered. Moreover, most of the courses are not fully covered. Therefore, there is no enough time to acquire sufficient knowledge.

The directors, vice directors and FPC teacher education graduates have also expressed that being low academic achiever while joining the higher education, and highly compacted program of the campus might lead to be less effective in teaching. Further, the subjects under study and other data source respondents, i.e., directors and vice directors have forwarded possible solutions for the problems of being less effectiveness in teaching in the open ended section of the questionnaire. According to the respondents view mentioned above the possible measures that should be taken to resolve hindering factors affecting teaching effectiveness are – creating manageable class size, fulfilling educational materials, conducting summer in-service short term training or panel discussion in the professional courses, and encouraging good governance at the school level. Moreover, emphasis also should be given for the will be teachers from the grass root level up to higher education in identifying and preparing them for the teaching profession.

Therefore, having all these ideas in mind one can understand that the PPC teacher education graduates seem to be lagged behind in subject matter knowledge because of minimum duration in the campus and low intake national examination results towards the higher education. Moreover, it is clear from the aforementioned discussion that the PPC graduates have faced several challenges in teaching. However, they have exhibited higher interest to the profession than their counter part.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary

The purpose of this study was to compare the teaching effectiveness of Freshman Program Complete (FPC), and Preparatory Program Complete (PPC) teacher education graduates' in Illubabor Administrative zone Senior Secondary Schools. In order to achieve this purpose the following basic questions were raised. These are:

1. Is there any significant difference in teaching effectiveness between Freshman Program Complete and Preparatory Program Complete teacher education graduates?

This is in terms of:

- a. lesson clarity,
 - b. teaching method variety,
 - c. teachers task-orientation,
 - d. engagement in the teaching-learning process, and
 - e. moderate-to-high success rate;
2. Is there any significant difference in teaching effectiveness of the graduates from different teacher education colleges or faculties of universities in the country?
 3. What factors influence the teaching effectiveness of the Freshman Program Complete and Preparatory Program Complete teacher education graduates?

To answer these basic questions, observation checklist with rating scale, three types of questionnaires, i.e., directors', teachers' and students' questionnaires, and documentary sources were used for collecting the necessary information. The major sources of data were 57 department heads, 23 school directors and vice directors, 27 Freshman Program Complete teacher education graduates, 35 Preparatory Program Complete teacher education graduates, and 850 senior secondary school

students. All of the data sources were selected from 14 sample senior secondary schools of Illubabor zone.

In analyzing the data obtained from these sources, such statistical techniques as mean scores, t-test, Pearson's product moment correlation coefficient, and One-Way Analysis of Variance (ANOVA) were employed. In addition, the qualitative data obtained through the open-ended items were thematically presented and analyzed. Based on the analysis made the major findings of the study are summarized as follows.

5.1.1. The Comparison of FPC and PPC Teacher Education Graduates' Teaching Effectiveness

Based on the documents reported so far, it is possible to summarize the findings concerned with the first basic question which seeks answer whether there is or no statistically significant difference between the teaching effectiveness of FPC and PPC e teacher education graduates. The results indicated that there was statistically significant different between the teaching effectiveness of both groups of graduates where the FPC group was generally found to be more effective.

Furthermore, the comparison of the two groups' teaching effectiveness along the five key behaviors also revealed the following:

- a. Concerning lesson clarity the FPC teacher education graduates have been found to be performed better than their counter parts, i.e., the PPC group. This was confirmed by the judgment of the department heads, directors and vice directors, and students of the respective teachers under study. However, according to the rating of the teachers by themselves, statistically there was no significant difference between the two groups of graduates, i.e., the FPC and PPC. This in turn indicates that there was an attempt to deny what has been happening in the real teaching-learning process. The key indicator lesson clarity of the teachers has been used to measure teachers' effectiveness along with its items indicating effectiveness. These were:

- informing learners about the lesson objective,
- providing learners with an advance organizer,
- checking for task-relevant prior learning at the beginning of the lesson,
- giving directives for the learners slowly and distinctly,
- using examples, illustrations or demonstrations to clarify content in text and workbooks, and
- providing review or summary at the end of the lesson. In general, the lesson clarity has been concerned about the extent to which teachers' presentation was interpretable, understandable, audible, intelligible and free of any destructive mannerism. Thus, the FPC group of graduates has been found to be scored more than the PPC group of graduates but in one of the items stated above, i.e., providing review or summary at the end of the lesson.

b. Teaching method variety - from the judgment of department heads, directors and the teachers by themselves, the finding indicated that the FPC group of teacher education graduates found to be performed all the items of teaching method variety than their counter parts, i.e., the PPC group of graduates. Nevertheless, the judgment of the learners shows that there was statistically no significant difference between the two groups of graduates in performing this key behavior. However, the mean scores of the FPC group is greater than the PPC group. Hence, the finding shows that in the point of comparison teaching method variety the FPC becomes greater than the PPC group. This in turn indicated that the PPC group has not been:

- enthusiastic enough to let the learners to be initiative, creative and appreciative,
- aware of using attention gaining devices, and
- ready to incorporate students' ideas or participation in some aspects of the instruction.

- c. Teacher's task-orientation – this key behavior, as it was discussed earlier, indicates that the extent to which the teacher being achievement oriented with respect to his or her learners and thus providing the students with the opportunity to learn. In this regard, the finding of the present study indicates that statistically there was no significant difference between the two groups of graduates, i.e., the FPC and PPC groups. Nevertheless, the mean scores of department heads, directors and students show that slightly the FPC group has been more performed than the PPC group.
- d. Engagement – in this key behavior the FPC group found to be more engaged in the teaching-learning process than their counter parts. However, the statistical difference between the two groups in performing the key behavior was null excluding the directors' and vice directors' of the respective teachers judgment. On the other hand, according to the teachers under study's response the PPC group found to be more engaged in providing for guided practice, using meaningful verbal praise, and monitoring seatwork by circulating and frequently progress than the FPC group of graduates.
- e. Moderate-to-high success rate – in this key behavior the FPC group of graduates found to be performed more than their counter parts, i.e., the PPC group of graduates. This key behavior has been incorporated the following items. These were:
- establishing unit and lesson organization sequences that reflect task-relevant prior learning,
 - administering correctives immediately after initial response,
 - dividing lesson into small, easily digestible pieces,
 - planning transitions to new content in small, easy-to-grasp steps, and
 - establishing momentum.

Had had teachers performed effectively all the items of moderate-to-high success rate, their learners would have been high achievers in their academic background. Nevertheless, the PPC teacher education graduate teachers found to be lagged behind in performing the items effectively.

5.1.2. The Comparison of FPC and PPC Teacher Education Graduates' on-the-job Effectiveness in Relation to the Universities from which they graduated

The finding of the study shows that the subjects of under investigation were graduated from ten universities of the country whereas Jimma University took the lion share in preparing 22.3% of the graduates under study. It is also found that there were both groups of graduates from these universities excluding Adama and Arbaminch. According to the undertaken computation, the mean scores of the FPC of group graduates outperformed their counter part except the graduates of Mekelle University.

- As far as the differences in effective teaching of the graduates from the eight universities mentioned in chapter four is concerned; the finding shows that there is statistically no significant difference between the universities' teacher education colleges in preparing the FPC and PPC groups of graduates. Nevertheless, the case of Mekelle University is found to be slightly different from the others so that the PPC teacher education graduates outperformed their counter part (FPC).
- It is also found that the FPC graduates from all universities become more effective in teaching than their respective counter parts, i.e., the PPC group.

5.1.3. The Comparison of FPC and PPC Teacher Education Graduates Teaching Effectiveness in Accordance with the Factors Affecting on-the-job Effectiveness

According to the undertaken investigation it is found that there are several factors affecting the teaching effectiveness of the newly recruited teachers. Among which - teachers' lack of professional skills, lack of commitment, being reluctant to cooperate with the head teachers, principals, vice principals and other senior staff members, and teachers lack of energy in teaching and other school activities were the focus of the study.

- Concerning the graduates' power of overcoming the challenges they faced against their on-the-job effectiveness, the FPC group found to be - more knowledgeable in professional skills, more committed for the profession, and relatively more confident in teaching at all levels of secondary school education than the PPC group of graduates.
- Besides the principals' judgment, analysis of the documentary sources indicated that there was a high and positive correlation between the academic background and on-the-job effectiveness of the PPC teacher education graduates. This is because, their academic background was very weak as measured by national examination results, and their on-the-job effectiveness was not up to the expectation, i.e., as observed and rated by their department heads.
- On the other hand, both groups of graduates found to be at similar level in co-operating with others in school matters.
- Moreover, it was found that the graduates lack interest to teach as a result of being miss-matched of living standard with their monthly income, remoteness of the working area, and the unfulfillment of the necessary educational materials as well as personal accommodations.

Based upon the findings stated above, the following conclusions made within the delimitation of the current study.

5.2. Conclusions

Despite the high expectation of the Preparatory Program Complete teacher education graduates' being competent enough in performing their day-to-day activities at the school level, the reverse has been depicted in the present study. To begin with, the Freshman Program Complete teacher education graduates found to have outscored their counter parts (PPC) in the effective teaching performance. In addition, the FPC graduates found to be performed all the key behaviors indicating effective teaching, i.e., lesson clarity, teaching method variety, teachers' task orientation, engagement into the teaching-learning process and moderate-to-high success rate along with their catalytic behaviors, more than the Preparatory

Program Complete teacher education graduates. The weaker performance of the PPC as compared to the FPC, indicates that teachers lacking subject matter knowledge and professional skills which acquired from teacher education colleges. This in turn hindered by first, weak academic background of the PPC group and the other is short duration of campus program with intensified courses. On the other hand, no significant difference is observed between the two groups of graduates as a result university attended. That may mean difference in university attended has no significant effect on the effectiveness of the graduates.

Furthermore, according to the comparison made between the two groups on-the-job effectiveness in accordance with the factors affecting teaching effectiveness, i.e., knowledge in professional skills, commitment to the profession, and teaching confidence at all levels of secondary school education, the FPC teacher education graduates found to be more competent than their counter part (PPC). Furthermore, the finding indicates that there was a high and positive correlation between the academic background and teaching effectiveness of the latter group graduates. Meanwhile, the FPC group of graduates found to be with deteriorated interest to the teaching profession.

5.3. Recommendations

Based on the findings of the study and the conclusions made, the following recommendations are suggested. These are:

- Have all the concerned bodies, i.e., education offices of different levels such as Zonal and Woreda education experts give attention for the PPC graduate teachers in fostering them with necessary materials, morals, and provide them with the necessary induction programs, the situation may be improved;
- To bring up the less effective group to the expected level through designing summer in-service programs, work-shops and panel discussions in which these PPC teacher education graduates could be fully engaged to develop their professional skills and subject matter knowledge;

- To recruit the would-be teachers with due emphasis on their interest and commitment to the profession besides good academic bases, and nurture that through proper professional education, it deserves the attention of the concerned bodies.;
- The less effective teachers tend to be lacking strong academic background from the very beginning, and seem being ill prepared in a very short period of time in the campus. Thus, have the intake results towards teacher education colleges, i.e., the Higher Education Entrance Qualification Certificate results reconsidered, and the duration of the program maximized with extensive practicum program in rural senior secondary schools, professionally competent teachers will be prepared; and
- Lastly, as this study is limited to the comparison of the teaching effectiveness of FPC and PPC teacher education graduates who are assigned in one administrative zone of Oromia Region (i.e., Illubabor), there is a need to design and conduct large scale research (at national and/or regional level) to come up with more generalizable result. Therefore, interested researchers are recommended to take up this issue as their research problem.

REFERENCES

- Abraham Belay. (1993). "Factors Which Influence Teacher Effectiveness: A Comparative Analysis of male and female Teachers in Elementary Schools." MA thesis, AAU (UP)
- Aggarwal, J.C. (1996). *Teacher and Education in a Developing Society*. New Delhi: Vikas Publishing House Pvt. Ltd.
- _____ (2001). *Principles, Methods and Techniques of Teaching* (2nd Rev. ed.). New Delhi: Vikas Publishing House Pvt. Ltd.
- Amare Asgedom. (1998) "Teachers Perception of Educational problems in Ethiopia", *Quality education in Ethiopia: Visions for the 21st century* (eds). Addis Ababa University: IER
- Ambissa Kenea .(1997). "A Study on the Satisfaction of Nazareth TTI Graduates (1983-1987 Eth.c) With their Pre-service Professional Training." MA thesis, Addis Ababa University (UP).
- Anderson, Lorin W. (1995). "Teaching Skills and Techniques" *International Encyclopedia of Teaching and Teacher Education*, (2nded.). UK: Elsevier Science Ltd.
- _____ (2004). *Increasing Teacher Effectiveness*. Spain: UNESCO
- Anderson, Mary B. (1992). *Education for All: What are we Waiting for?* New York: UNICEF Publication.
- Andrew, Hans A. (1995). *Teachers can be fired!: The quest for quality*. USA: Cat Feet Press.
- Arends, Richard I. et al. (2001). *Exploring Teaching: An Introduction To Education*, (2nd ed). New York: McGraw-Hill Companies, Inc.
- Best, J. W and Kahn, J. V. (1993). *Research in Education* (7th ed). New Delhi: Prentice-Hall of India Pvt. Ltd.
- _____ (2003). *Research in Education* (9th ed.). New Delhi: Prentice Hall, Inc
- Bishop, George (1995). *Curriculum Development: A text book for students*. Honk Kong: Macmillan Education Ltd.
- Borich, Gary D. (1988). *Effective Teaching Methods*. New York: Macmillan Publishing Company

- Burden, Paul R. (1996). *Classroom Management and Discipline: Method of facilitate cooperation and institution*. USA: Longman Publisher
- _____ (2003). *Classroom Management: Creating a Successful Learning Community* (2nd ed). USA: John Wiley and Son, Inc.
- Callahan, J. S. & Clark, L. H. (1988). *Teaching in the Middle and Secondary Schools: Planning for Competence* (3rd ed.). USA: Macmillan Publishing Company, Macmillan, Inc.
- Chauhan, S. S. (1983). *Innovation in Teaching-Learning Process* (2nd ed.). New Delhi: Vikas Publishing House Pvt. Ltd.
- Cohen, L. and Manion, L. (1994). *Research Methods in Education*. GB: Biddles Ltd.
- Creemers, Bert P. M. (1994). *The Effective Classroom*. GB: Redwood Books.
- Creswell, John W. (2003). *Research Design: Qualitative, Quantitative and Mixed Approaches* (2nd ed). USA: Sage publications, Inc
- Cullingford, Cedric (1995). *The Effective Teacher*. Great Britain: Redwood Books.
- Darge Wole (2000). "What do Secondary School Students Want of their teacher?", *Secondary Teacher Education in Ethiopia* (Eds, David Bridges and Marew Zewdie). Addis Ababa: AAU Printing Office.
- Derebssa Dufera (2004). *Fundamentals of curriculum Development*. AAU
- Edwards, Allen (1954). *Techniques of Attitude Score Construction*. NY: Apleton Century Crafts. Inc.
- Eggen, Paul D. and Kauchank, Donald P. (1996). *Strategies for Teachers: Teaching content and Thinking Skills* (3rd ed.). USA: Allyn and Bacon
- _____ (2001). *Strategies for Teachers: Teaching content and Thinking Skills*. USA: Allyn and Bacon.
- Fallik, Fred. (1983). *Statistics for Behavioral Science*. USA: the Dorsey Press.
- Farrant, J.S. (1980). *Principles and Practice of Education* (New ed.), Singapore: Selector Printing Co Pte Ltd.
- FDRGE. (1994). *Education Sector Strategy*. Addis Ababa: EMPDA
- Fisher, Robert. (1995). *Teaching Children to Learn*. UK: Stanley Thorhes Ltd.

- Gage, N. L. (1978). *The Scientific Basis of the Art of Teaching*. New York: Teachers College Press, Columbia University
- Girma Abate (2004). "Appraisal of Teaching Effectiveness of the Prospective Teachers of Arabaminch TTI". AAU: MA thesis & (UP)
- Grossman, Pamela (1991). "Mapping the Terrain: Knowledge Growth in Teaching", *Effective Teaching: Current Research* (eds). USA: McCutchan.
- Knight, Stephanie L. and Waxman, Hersholt C. (1991). "Students' Cognition and Classroom Instruction", *Effective Teaching: Current Research*. US: McCutchan Publishing Corporation.
- Kumar, Ranjit. (1999). *Research Methodology: A Step-by-Step guide for beginners*. New Delhi: Sage Publications Ltd.
- Leming, James S. (1991). "Teacher Characteristics and Social Studies education", *Hand book of Research on Social Studies Teaching and Learning* (eds). USA: Macmillan Publishing Company.
- Lovegrove, N. S. (1961). *The Quality of Teaching: A Hand Book for Teachers and Those who Interested Becoming Teachers, and for those Interested in the Education of Children*. Ethiopia: MoEFA.
- Marew Zewdie, et al. (2000). "Secondary Teacher Education in Ethiopia: an over view", *Secondary Teacher Education in Ethiopia*, (Eds, David Bridges and Marew Zewdie). Addis Ababa: AAU Printing office.
- Mendida Barkesa. (2001). "Teacher Behavior in ESL Large Classes in Bahir Dar Senior Secondary Schools," (PhD Dissertation). Addis Ababa University (UP).
- Miller, Robert H. et al. (2003). "Survey of Actual and Preferred use of Cooperative Learning Among Exemplar Teachers", *The Journal of Educational Research*. Washington DC: Heldref Publication, Vol. 96 No. 4.
- MoE. (2004). *Teacher Education System Overhaul (TESO) Final*. Addis Ababa :AED, BESO.
- Muijs, Daniel and Reynolds, David. (2001). *Effective Teaching: Evidence and Practice*. London: a Sage Publication Company
- Nigussie Kasahun. (2002). "Conception of Teaching: The case of Higher Institutions' Instructors." *IER-FLAMBEAU*. AAU: IER, Vol. 10 No. 1.
- Ornstein, Allan C. (1995). *Strategies for effective Teaching* (2nd ed.). USA: Wm.C. Brown

- Patton, Q. M. (1987). *How to use Qualitative Methods in Education*. London: Sage Publications Inc.
- Perrott, Elizabeth. (1982). *Effective Teaching: A practical guide to improving your teaching*. Malaysia: Longman group Limited
- Rao, V. K. and Reddy, R. S. (2005). *Effective Teachers and Teaching*, (eds). New Delhi: Ajay/ Venma, for Common Wealth Publishers.
- Robinson, Ajai (1980). *Principles and Practice of Teaching*. Great Britain: George Allen and Unwin
- Sadker, Myra Pollack and Sadker, D. M. (2003). *Teachers, Schools and Society* (6th ed.). USA: McGraw-Hill Companies.
- Shiundu, J. S. and Omulando, S. J. (1992). *Curriculum: Theory and Practice in Kenya*. Nairobi: Oxford University Press.
- Smith, Tom E. (1990). *Introduction to Education*. USA: West Publishing Company.
- Stanley, William B. (1991). "Teacher Competence for Social Studies", *Hand Book of Research on Social Studies Teaching and Learning*, (eds). USA: Macmillan Publishing Company
- Stoll, Lousie and Fink, Dean.(1996). *Changing our Schools: Linking School Effectiveness and School Improvement*. USA: Open University Press.
- Taye Regassa. (2004). "Performance of Freshman and Preparatory origin students on a Reading Comprehension Test: A comparative study," *EJE*, Vol. XXIV No. 2.
- Teshome Nekatibeb (1998). *Media Utilization and School Improvement: A Case Study of Primary Education Radio Support Programs in Ethiopia*, ((PhD Dissertation), Institute of International Education, Stockholm University: Gotab.
- TGE (1994). *Education and Training Policy*. Addis Ababa: EMPDA
- Timperley, Helen and Parr, J. (2004). *Using Evidence in Teaching Practice: Implications for Professional Learning*, Singapore: Kyodo Printing Co. Ltd.
- Tucker, M. S. and Drucker, P. (1988). "Knowledge Work, and the Structure of Schools", *Educational Leadership*, Vol. 45, No.5, Alexandria: Association for Supervision and Curriculum Development.

- Walberg, Herber J. (1991). "Productive Teaching and Instruction: Assessing the Knowledge Base:" *Effective Teaching: Current Research* (eds). USA: McCutchan.
- Wang, M. C. and Walberg, H. J. (1991). "Teaching and Educational Effectiveness: Research synthesis and Consensus from the Field," *Effective teaching Current Research* (eds). USA: McCutchan
- WCEFA (1990). *Meeting Basic Learning Needs: A vision for the 1990s*. New York: UNICEF House, Three United Nations Plaza
- Yalew Indaweke Mulu (2006). *Yemirmir Meseretawi Merhowochina Ategebaber [Basic Principles and Applications of Research]*. Bahir Dar University
- Zahorik, John A. (1986). "Acquiring Teaching Skills", *Journal of Teacher Education*, Vol. 37 No-2, Washington Dc: AACTE

Appendix I
Addis Ababa University
School of Graduate Studies
College of Education

Department of Curriculum and Teachers' Professional Development Studies

An observation Checklist with rating scale to be filled in by department heads

This Observation checklist with rating scale is intended for checking the existence of the given items, and rating the teaching efficiency of *Preparatory Complete* and *Freshman Complete* teacher education graduates in Illubabor zone senior secondary schools.

Preliminary Information

Observer's name _____ Name of the school _____

Teacher observed: Name _____

Group:- Please make "x" mark in the box the appropriate group in which the teacher is belonged.

Freshman Complete teacher education graduate

Preparatory Complete teacher education graduate

Subject observed _____ Topic _____

Observation Round _____ Date _____

Time begin _____

Time ended _____

Direction

This observation checklist with rating scale consists of five key behaviors in line with the catalytic or helping behaviors. In front of each key behavior, possible indicators of effectiveness are listed. Hence, observe a teacher during presentation for the whole period of allotted minutes. Thus, think about how effectively you feel the teacher incorporated the indicators of the behaviors into her/his presentation. Then *circle* the number which represents the extent of effectiveness that corresponds to the indicators of effectiveness you observed during a session. Use the notations:

4 - Represents "Excellent"

3 - Represents "Very good"

2 - Represents "Good"

1 - Represents "Fair"

0 - Represents "Not Done"

Key Behavior	Indicators of Effectiveness in Teaching	Its existent and extent of effectiveness				
		4	3	2	1	0
Clarity	1. Informs learners about the lesson objective (e.g., describes what behaviors will be tested or required on future assignments as a result of the lesson).	4	3	2	1	0
	2. Provides learner with an advance organizer (e.g., places lesson in perspective of past and/or future lessons.)	4	3	2	1	0
	3. Checks for task-relevant prior learning at beginning of the lesson (e.g., determines level of understanding of prerequisite facts or concepts and re teaches when necessary.)	4	3	2	1	0
	4. Gives directives slowly and distinctly; (e.g. checks for understanding along the way).	4	3	2	1	0
	5. Knows learners' ability level and teaches at or slightly above their current level of functioning.	4	3	2	1	0
	6. Uses examples, illustrations, or demonstrations to explain and to clarify content in text and workbooks.	4	3	2	1	0
	7. Provides review or summary at the end of each lesson.	4	3	2	1	0
Variety	8. Uses attention gaining device (e.g., begins with a challenging question, visual, or examples.)	4	3	2	1	0
	9. Shows enthusiasm and animation through variation in eye contact, voice and gesture (e.g., changes pitch and volume moves about during transitions to new activity.)	4	3	2	1	0
	10. Varies mode of presentation (e.g., lecture, questioning, discussion, practice (daily).)	4	3	2	1	0
	11. Uses mix of rewards and reinforces (e.g., extra credit, verbal praise, independent study (weekly))	4	3	2	1	0
	12. Incorporates student ideas or participation in some aspects of the instruction (e.g., uses indirect instruction or divergent questioning(weekly))	4	3	2	1	0
	13. Varies types of questions and probes (e.g., convergent and divergent questions to clarify, to solicit and to redirect daily.)	4	3	2	1	0
Task-orientation	14. Develops unit and lesson plans and teaches in accordance with the text and curriculum guide	4	3	2	1	0
	15. Handles administrative and clerical interruptions efficiently.	4	3	2	1	0
	16. Stops misbehavior with a minimum of disruption to the class.	4	3	2	1	0
	17. Selects the most appropriate instructional methods for objectives being taught, uses alternatively direct and indirect instructions, according to the learners' behavior.	4	3	2	1	0
	18. Establishes schedule in which major classroom activities begin and end with clearly visible events (e.g., reviews, minor and major tests, and feedback sessions to students.)	4	3	2	1	0
Engagement	19. Provides for guided practice (e.g., asks learners to attempt the desired behavior or skill after instruction has been given.	4	3	2	1	0
	20. Provides correctives for guided practice in a none evaluative atmosphere.	4	3	2	1	0
	21. Uses individualized or attention getting strategies to promote interest among special types of learners when appropriate	4	3	2	1	0
	22. Uses meaningful verbal praise	4	3	2	1	0
Moderate-to-high success rate	23. Monitors seatwork by circulating and frequently progress.	4	3	2	1	0
	24. Establishes unit and lessons organization sequences that reflect task-relevant prior learning	4	3	2	1	0
	25. Administers correctives immediately after initial response	4	3	2	1	0
	26. Divides lessons into small, easily digestible pieces	4	3	2	1	0
	27. Plans transitions to new content in small, easy-to-grasp steps.	4	3	2	1	0
	28. Establishes momentum (e.g, pacing and intensity gradually build toward major milestones.)	4	3	2	1	0
Total						

Form 02

Appendix II
Addis Ababa University
School of Graduate Studies
College of Education

Department of Curriculum and Teachers' Professional Development Studies

A questionnaire to be filled in by school directors and vice directors

The purpose of this questionnaire is to secure information about the *Preparatory and Freshman Complete* teacher education graduates' teaching effectiveness in terms of lesson clarity, teaching method variety, teacher's task-orientation, learner's engagement into the learning process, and moderate-to-high success rates. Therefore, your response is very much crucial for the accomplishment of the study.

Thank you for your Cooperation!

N.B

In this questionnaire:

- *Preparatory complete graduate teachers*:- refers to teachers who attended the three years first degree teachers education program after completing from preparatory schools.
- *Freshman complete graduate teachers*:- refers to teachers who attended the four years first degree teacher education program after completing the old education system of grade twelve.

Direction

Please give your response by writing the appropriate answer on the space provided for each question, and rate the extent to which both *the preparatory complete and Freshman complete teacher education graduates* perform the items given in the table.

Part I. Personal Data

1. Sex: _____
2. Name of your school: _____
3. Your position in the school. _____
4. Job experience in the present position: _____ year _____ month

Part II. The Comparison of graduates' teaching effectiveness

5. Please *circle* the number that represents the extent of graduates' effectiveness which indicates your judgment. Use the notations:

5. Excellent 4. V. good 3. Average 2. Fair 1. Unsatisfactory

S. No.	Items that indicate teaching effectiveness	Group									
		Preparatory complete graduates level of effectiveness					Freshman complete graduates level of effectiveness				
5.1	The extent of presenting clear and interpretable lesson										
	a. Informing the learners about the lesson objective.	5	4	3	2	1	5	4	3	2	1
	b. Knowing the students' level of understanding and teaching accordingly.	5	4	3	2	1	5	4	3	2	1
	c. Placing a lesson in perspective of past and/or future lessons (providing learners with an advance organizer)	5	4	3	2	1	5	4	3	2	1
	d. Giving directives slowly and distinctly	5	4	3	2	1	5	4	3	2	1
	e. Using of demonstrations	5	4	3	2	1	5	4	3	2	1
	f. Providing review or summary	5	4	3	2	1	5	4	3	2	1
	g. Checking for task-relevant prior learning at the beginning of the lesson	5	4	3	2	1	5	4	3	2	1
	h. Overcoming the challenges of subject matter knowledge	5	4	3	2	1	5	4	3	2	1
	i. Power of expression fluency	5	4	3	2	1	5	4	3	2	1
	j. Standard of language competency	5	4	3	2	1	5	4	3	2	1
	k. Teaching confidence at all levels of secondary school education including preparatory	5	4	3	2	1	5	4	3	2	1
	5.2	Varying methods and techniques of delivery during the presentation of a lesson.									
a. Varying modes of presentation		5	4	3	2	1	5	4	3	2	1
b. Using attention gaining devices		5	4	3	2	1	5	4	3	2	1
c. showing enthusiasm		5	4	3	2	1	5	4	3	2	1
d. Varying types of questions and probes		5	4	3	2	1	5	4	3	2	1
e. Incorporating students' ideas in some aspect of instruction		5	4	3	2	1	5	4	3	2	1
f. Using a mix of rewards and reinforces		5	4	3	2	1	5	4	3	2	1
5.3	The extent of task-Oriented with respect to students, and providing them with the opportunity to learn.										
	a. Developing lesson plan in accordance with text and curriculum guide	5	4	3	2	1	5	4	3	2	1
	b. Selecting the most appropriate instructional methods for objectives being taught.	5	4	3	2	1	5	4	3	2	1
	c. Handling administrative and clerical interruptions	5	4	3	2	1	5	4	3	2	1
	d. Preventing misbehavior with a minimum of class disruption.	5	4	3	2	1	5	4	3	2	1
	e. Establishing a schedule in which major classroom activities being and end with clearly visible events	5	4	3	2	1	5	4	3	2	1
5.4	Engaging students in the learning process										
	a. Providing the learners with guided practice	5	4	3	2	1	5	4	3	2	1
	b. Providing opportunities for feedback	5	4	3	2	1	5	4	3	2	1

	c. Using individualized and group activities	5	4	3	2	1	5	4	3	2	1
	d. Using meaningful verbal praise	5	4	3	2	1	5	4	3	2	1
	e. Checking progress during independent practice	5	4	3	2	1	5	4	3	2	1
5.5	<i>Engaging learners in the learning process at moderate-to-high success rates</i>										
	a. Establishing unit and lesson content that reflects prior learning.	5	4	3	2	1	5	4	3	2	1
	b. Administering correctives immediately after initial response	5	4	3	2	1	5	4	3	2	1
	c. Dividing instructional stimuli into small chunks.	5	4	3	2	1	5	4	3	2	1
	d. Changing instructional stimuli gradually.	5	4	3	2	1	5	4	3	2	1
	e. Varying the instructional tempo or pace to create momentum.	5	4	3	2	1	5	4	3	2	1
5.6	Knowledge of professional skills	5	4	3	2	1	5	4	3	2	1
5.7	Commitment towards the profession	5	4	3	2	1	5	4	3	2	1
5.8	Co-operation with the head teacher, principal, vice principal and other senior staff members	5	4	3	2	1	5	4	3	2	1
5.9	Energy in teaching and school activities	5	4	3	2	1	5	4	3	2	1
	Total										

6. In your view, which one of the above groups is more effective? Is it *preparatory complete* or *freshman complete* teacher education graduate?

7. What do you think that the reasons for being effective of the group you have answered for question number "6"?

8. What factors do you think that contribute for being ineffective or less effective of the group you have answered for question number "6"?

9. In your view, what measures should be taken to resolve the problems of being ineffective in teaching with regard to the comparison of the two groups?

10. Would you please provide your suggestion in the selection, preparation and recruitment of the would be teachers for the secondary school in the future?

Appendix III

Addis Ababa University
School of Graduate Studies
College of Education

Department of Curriculum and Teachers' Professional Development Studies

A questionnaire to be filled in by preparatory and freshman complete teacher education graduate teachers.

The purpose of this questionnaire is to gather information about the *preparatory and Freshman Complete teacher education graduates'* teaching effectiveness in terms of *lesson clarity, teaching method variety, teacher's-task orientation, learners' engagement in to the learning process and moderate-to-high success rates*. Therefore, your response is very essential for the accomplishment of the study.

Thank you for your cooperation!

N.B.

In this questionnaire:

- *Preparatory complete teacher education graduates:-* refers to teachers who attend the three years first degree teacher education program after completing form preparatory schools.
- *Freshman complete teacher education graduates:-* refers to teacher who attend the four years first degree teacher education program after completing the old education system of grade twelve.

Direction

Please give your response by writing the appropriate answer on the space provided for each question and make "X" mark under the appropriate scale you judge in front of each item in the table given.

Part I. Personal Data

1. Sex: _____
2. Age: _____
3. Group:- Preparatory completed _____
Freshman completed _____
4. Major area: _____
5. Minor area: _____

6. Name of the University form which you graduated: _____
7. Year of graduation: _____
8. Teaching experience before joining university, if any: _____
9. If you have taught before joining university, at what level you did it? _____
10. Teaching experience after graduation: _____

Part II. About the graduates' effectiveness in Practical teaching

11. Please rate the extent to which you perform the following items in the table. Use the notations:

3. High 2. Medium and 1. Low to indicate the extent to which you perform each of the item.

S. No.	Indicators of Teaching Skills	Levels		
		3	2	1
11.1	<i>The extent of presenting clear and interpretable lesson.</i>			
	a. Informing the learners about the lesson objective.			
	b. Knowing the students' level of understanding and teaching accordingly.			
	c. Placing a lesson in perspective of past and/or future lessons (providing learners with an advance organizer).			
	d. Giving directives slowly and distinctly.			
	e. Using of demonstrations.			
	f. Providing review of summary.			
	g. Checking for task-relevant prior learning at the beginning of the lesson.			
11.2	<i>Varying methods and techniques of delivery during the presentation of a lesson.</i>			
	a. Varying modes of presentation.			
	b. Using attention gaining devices.			
	c. Varying types of questions and probes.			
	d. Incorporating students' ideas in some aspect of instruction.			
11.3	<i>The extent of task-oriented with respect to students and providing them with the opportunity to learn.</i>			
	a. Developing lesson plan in accordance with text and curriculum guide.			
	b. Selecting the most appropriate instructional methods for objectives being taught.			
	c. Handling administrative and clerical interruptions.			
	d. Preventing misbehavior with a minimum of class disruption			
11.4	<i>Engaging students in the learning process</i>			
	a. Providing the learners with guided practice			
	b. Providing opportunities for feedback.			
	c. Using individualized and group activities			
	d. Using meaningful verbal praise			
	e. Checking progress during independent practice.			

11.5	<i>Engaging learners in the learning process at moderate-to-high success rates</i>			
	a. Establishing unit and lesson content that reflects prior learning.			
	b. Administering correctives immediately after initial response			
	c. Dividing instructional stimuli into small chunks.			
	d. Changing instructional stimuli gradually.			
	e. Varying the instructional tempo or pace to create momentum.			
	Total			

12. ESLCE result for *freshman complete* teacher education graduates _____;

EGSECE result for *preparatory complete* teacher education graduates _____.

13. Freshman courses of total GPA for *freshman complete* graduates _____;

Higher institute iterance examination results for *preparatory complete* graduates

_____.

14. In the school you work, what factors do you think negatively affect your effectiveness?

15. What challenges do you face in the teaching learning process?

16. In your view, is the current three years program of teacher education *adequate*?
Why?

17. If your answer for question number "16" is *not adequate*, what measures should be taken to alleviate the problem?

18. What do you comment about the measures that should be taken to resolve the challenges that impede teachers' effectiveness in your school (if any)?

19. To what extent you are interested in teaching profession?

Appendix- IVA
Addis Ababa University
School of Graduate studies
College of Education
Department of Curriculum and Teachers' Professional
Development Studies

A questionnaire to be filled in by students

The purpose of this questionnaire is to secure information about the Freshman Program Complete and Preparatory Program Complete teacher education graduates' teaching effectiveness. Therefore, your honest willingness to respond and complete this questionnaire contributes to the success of this study.

Thank you for your cooperation!

- N.B.** 1) It is not necessary to write your name in the questionnaire.
- 2) For items that require you to respond by writing, use the space provided.
- 3) After carefully reading each item in the table, **circle** one of the numbers to the performance score.
- 4) The numbers in the table represent the following score values of each item.

4. Very high; 3. High; 2. Satisfactory; and 1. Unsatisfactory

I. General Questions.

- 1 Name of the school _____
- 2 Teacher's Name _____
- 3 Subject he/she teaches _____
- 4 Grade and section of the student respondent _____

II. Tabular questionnaire Items

Please **circle** the number that represents the extent of teacher's effectiveness which indicates your judgment

S. No.	Activities accomplished by teachers	Level of performance			
1	<i>To what extent the teacher's lesson presentation is clear?</i>				
	a. Clarity of the lesson objectives.	4	3	2	1
	b. Understandability of the lesson contents	4	3	2	1
	c. Relating the present topic with the previous one	4	3	2	1
	d. Supporting the lesson with illustrations and teaching aids	4	3	2	1
	e. Showing future direction of the lesson topic	4	3	2	1
2	<i>How effective is the teacher in using different teaching methods?</i>				
	a. Revising the previous lesson through question and answer	4	3	2	1
	b. Explaining lesson objectives, encouraging discussion, and teaching through demonstration and practice	4	3	2	1
	c. Attracting students' attention in the lesson	4	3	2	1
	d. Accepting students' ideas & reflecting them	4	3	2	1
3	<i>How effectively does the teacher manage the classroom?</i>				
	a. Identifying students having discipline problems and correcting them	4	3	2	1
	b. Using the lesson time properly	4	3	2	1
	c. Organizing the necessary materials in the class	4	3	2	1
	d. Helping the students to learn from each other	4	3	2	1
4	<i>How effective is the teacher in evaluating the students and giving corrections?</i>				
	a. Giving continuous assessment regularly	4	3	2	1
	b. Explaining exam questions, and giving appropriate corrections	4	3	2	1
	c. Informing students about their scores in time	4	3	2	1
	d. Returning the students exam paper in time	4	3	2	1
5	<i>To what extent the teacher strives to solve academic problems of the learner?</i>				
	a. Providing the learners with text books	4	3	2	1
	b. Proper utilization of Plasma TV	4	3	2	1
	c. Engaging the learners in laboratory and pedagogical center	4	3	2	1
	d. Creating conducive learning environment	4	3	2	1
	e. Solving social problems of the learners in collaboration with the school administration.	4	3	2	1
	f. Informing the learners about the schedule of each instructional process	4	3	2	1

Appendix - IVB
Yuniivarsitii Finfinnee
Mana Barumsa Eebbaan Boodaa
Muummee Qorannoowwan Sirna Barnootaa fi Misooma Ogummaa
Baarsiisotaa

Gaafannoo Barattootaan Guutamu

Kayyoon gaafannoo kanaa inni ijoo bu'a-qabeessuummaa barsiisummaa eebifamtoota qophaa'ina xumuranii fi barnoota yuniivarsitii waggaa tokko xumuruun koolleejjii barnoota barsiisotaa irraa eebbifamanii wal bira qabani qorachuuf. Kanaaf, haqummaan gaafannoo kana guutuun keessan milkaa'ina qorannichaatiif qooda olaanaa gumaacha.

Galatoomaa!

Hubachiisa:-

- 1) Gaafannicha irratti maqaa keessan barressuun hin barbachisu;
- 2) Deebii barreeffama barbaaduuf bakka duwwaa sirrii lakkoofsa gaaffichaatiin deebiif qophaa'e irratti barreessuun deebii kennaa:
- 3) Gaafannoo gabateen jiru tokkoon tokkoon isaa sirriitti erga dubbistanii booda sadarkaa isaa lakkoofsa fuul-dura gaaffichaa saanduqa keessa jiru **geengoon** marun deebisaa:
- 4) Gaafficha irratti lakkoofsi gabatee keessaa:
 - 1 **4. "Baay'ee olaanaa"** bakka bu'a;
 - 2 **3. "Olaanaa"** bakka bu'a;
 - 3 **2. "Qubsa"** bakka bu'a; akkasums,
 - 4 **1. "Gadi'aanaa"** bakka bu'a.

I. Gaaffii dimshaashaa:

- 1 Maqaa mana barumsaa _____
- 2 Maqaa Barsiisaa _____
- 3 Gosa Brnootaa inni/isiin barsiisu/stu _____
- 4 Daree barnootaa barataa gaafficha guutee/ttee _____

II. Gaaffiwwan gabatee:-

Hanga raawwii isaa sirrii gaaffichaatiin lakkoofsa saanduqa keessaa **geengoon** maruun deebisaa.

S. No.	Hojiwwan Barsiisotaan Raawwatamanu	Sadarkaa Raawwii			
1	Barumsi barsiisaan kennanu hammam ifaa dha?				
	a. Kaayoon barnootaa ifa ta'uun isaa;	4	3	2	1
	b. Qabiyyeen barnootaa salphaan hammam hubatama?	4	3	2	1
	c. Barsiisaan barumsa kennanu isa kanaan dura baratamee wajjin walitti fiduu irratti;	4	3	2	1
	d. Barumsa kennanu fakkeenyaan fayyadamuu irratti;	4	3	2	1
	e. Barumsa kennanu meeshaalee deeggarsa barnootaatiin fayyadamuu irratti;	4	3	2	1
2	Maloota barsiisuu garaa garaatti fayyadamuun barsiisaa hamma gahaa dha?				
	a. Gaaffii fi deebiin eegaluun barumsa darbe yaadachiisuu irratti;	4	3	2	1
	b. Qabiyyee barnootaa ibsuun, mariisiisuun, agarsiisuunii fi shaakalsiisuun barsiisuu irratti;	4	3	2	1
	c. Yaada barataa hawwachuun gara barnootaatti harkisuu irratti;	4	3	2	1
	d. Yaada barataa fudhatanii barnoota keessatti calagqisiisuu irratti;	4	3	2	1
3	Barsiisaan haala daree keessa hammam to'atu?				
	a. Ijoollee rakkoo qabanu addaan baasanii qajeelchuu irratti;	4	3	2	1
	b. Yeroo barnoonni itti kennamu sirriitti itti fayyadamuu irratti;	4	3	2	1
	c. Daree keessatti waantota barnootaaf barbaachisanu mijeessuu irratti;	4	3	2	1
4	Barsiisaan barattoota barumsa barataniin madaaluu fi sirreessuu irratti hammam tattaafatu?				
	a. Madaallii wlitti fufaa yeroo yeroon kennuu irratti;	4	3	2	1
	b. Gaaffii qormaataa toklko tokkoon ibsuun sirreessuu irratti;	4	3	2	1
	c. Qabxii qormaataa yeroon beeksisuu irratti;	4	3	2	1
5	Barsiisaan rakkoo barattootaa hiikuuf hammam tattaafatu?				
	a. Barataaf kitaaba raabsuu irratti;	4	3	2	1
	b. Pilaazmaan TV tajaajila barnootaa haala gaariin akka kennu taasisuu irratti;	4	3	2	1
	c. Laaboraatoorii ykn HGB tti barataan akka hirmaatu taasisuu irratti;	4	3	2	1
	d. Qulqullina daree keessaa eegsisuu irratti;	4	3	2	1
	e. Rakkoo hawaasummaa barnoota barattootaa irratti dhiibbaa fidu bulchiinsa m/b waliin hiikuu irratti;	4	3	2	1
	f. Yeroo battallee (yaalii), qormaataa fi barnootaa addaan baasanii ibsuu irratti;	4	3	2	1

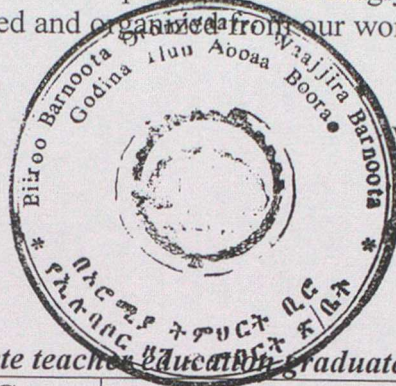
Appendix - V

Biiroo Barnoota Oromiyaatti
Waajjira Barnoota Godina
Iluu Abbaa Booraa
ዕለጅዳ ድምርት ስር
የኢትዮጵያ ጥያቄ ጽ/ቤት

No WB-2/749/B-53
Date 23/7/2000

To whom it may concern

This is to inform you that Tesfaye Getachew has requested us to provide him with the necessary archival data of *freshman program complete* and *preparatory program complete teacher education graduates* for his research purpose. Accordingly, we asserted that the following data in the table are collected and organized from our woredas' education offices in the zone.



With Regard!

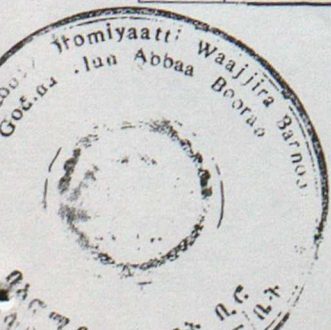
Gimaw Dagnaw

ዕለጅዳ ድምርት ስር
Biiroo Barnoota Oromiyaatti Waajjira Barnoota Godina Iluu Abbaa Booraa

Freshman complete and preparatory complete teacher education graduates profile.

S/N	Teachers' Code	Sex	Place of work	Group	Exam result		University from which he/she graduated
					ESLCE\EGSECE	FPC\EHEEQC	
1	001	M	Bure	FPC	3.6	1.8	AAU
2	002	M	Bure	FPC	3.4	1.8	Jimma
3	003	M	Bure	FPC	3.2	2.17	Dilla
4	004	M	Bure	PPC	2.37	119	Mekelle
5	005	F	Bure	PPC	2.14	157	Bahir Dar
6	006	M	Bure	PPC	2.41	195	Jimma
7	007	M	Bure	PPC	2.41	186	Hawassa
8	008	M	Bure	PPC	2.14	141	Haramaya
9	009	M	Bure	PPC	2.41	121	Bahir Dar
10	010	M	Bure	PPC	2.2	249	Jimma
11	011	M	Ouka	FPC	3.6	3.00	Dilla
12	012	M	Ouka	PPC	2.29	156	Haramaya
13	013	M	Ouka	PPC	2.14	157	Jimma
14	014	M	Ouka	PPC	2.86	226	AAU
15	015	M	Ouka	PPC	3.43	292	Dilla
16	016	M	Ouka	PPC	2.86	210	Bahir Dar
17	017	F	Ouka	PPC	2.00	224	Jimma
18	018	F	Ouka	PPC	2.00	186	Dilla
19	019	F	Ouka	PPC	2.00	195	Jimma
20	020	M	Gore	FPC	3.4	2.5	AAU

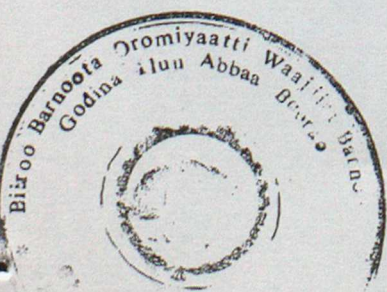
21	021	F	Gore	PPC	2.41	166	Jimma
22	022	M	Gore	PPC	2.29	166	AAU
23	023	M	Gore	PPC	2.41	225	Mekelle
24	024	M	Gore	PPC	2.00	151	Jimmaa
25	025	F	Gore	PPC	1.71	176	Jimmaa
26	026	M	Gore	PPC	2.28	205	AAU
27	027	M	Gore	PPC	2.00	222	Jimma
28	028	M	Gore	PPC	2.41	219	AAU
29	029	M	Gore	PPC	2.00	173	Dilla
30	030	M	Gore	PPC	2.86	210	Bahir Dar
31	031	M	Gore	PPC	2.00	168	Dilla
32	032	M	Gore	PPC	3.00	220	AAU
33	033	M	Gore	PPC	2.41	185	DNA
34	034	M	Gore	PPC	2.41	206	Gonder
35	035	M	Mettu	FPC	3.4	2..85	Adama
36	036	M	Mettuu	PPC	2.41	167	Jimma
37	037	M	Nopa	FPC	3.2	2.17	Haramaya
38	038	M	Nopa	FPC	3.4	2.32	Jimma
39	039	M	Nopa	PPC	1.71	167	Jimmaa
40	040	F	Nopa	PPC	2.29	154	Jimma
41	041	M	Nopa	PPC	2.14	156	Bahir Dar
42	042	F	Nopa	PPC	2.29	119	BahirDar
43	043	M	Nopa	PPC	2.00	166	Bahir Dar
44	044	M	Nopa	PPC	2.00	195	Jimma
45	045	M	Nopa	PPC	2.86	210	Jimma
46	046	F	Nopa	PPC	1.71	121	Jimma
47	047	M	Algie	FPC	3.4	2.09	Mekele
48	048	M	Algie	FPC	3.4	2.75	Hawassa
49	049	F	Algie	PPC	1.71	125	Haramaya
50	050	M	Algie	PPC	2.14	148	Haramaya
51	051	M	Algie	PPC	2.00	166	Mekelle
52	052	M	Algie	PPC	2.29	206	Jimma
53	053	M	Algie	PPC	1.71	176	Haramaya
54	054	M	Algie	PPC	2.00	157	Haramaya
55	055	M	Algie	PPC	1.71	151	Gonder
56	056	M	Algie	PPC	2.86	210	AAU
57	057	M	Algie	PPC	2.41	168	AAU
58	058	M	Algie	PPC	2.3	168	Jimma
59	059	M	Algie	PPC	DNA	DNA	DNA



60	060	M	Algie	PPC	DNA	DNA	DNA
61	061	F	Algie	PPC	DNA	DNA	DNA
62	062	M	Supu	FPC	3.4	2.04	Haramaya
63	063	M	Supu	PPC	2.86	221	Arbaminch
64	064	M	Supu	PPC	2.41	196	Haramaya
65	065	M	Supu	DNA	DNA	DNA	DNA
66	066	M	Darimu	FPC	3.6	2.20	AAU
67	067	M	Darimu	FPC	3.8	2.38	Bahir Dar
68	068	M	Darimu	FPC	3.2	2.18	Jimma
69	069	M	Darimu	FPC	3.4	2.09	Mekele
70	070	M	Darimu	PPC	2.71	185	AAU
71	071	M	Darimu	PPC	2.41	170	Dilla
72	072	M	Darimu	PPC	2.00	137	Haramaya
73	073	M	Darimu	PPC	2.28	174	Haramaya
74	074	M	Darimu	PPC	2.28	185	Gonder
75	075	M	Darimu	PPC	2.41	121	Jimma
76	076	M	Darimu	PPC	2.41	251	AAU
77	077	M	Darimu	PPC	2.41	170	Jimma
78	078	M	Darimu	PPC	2.37	121	Mekelle
79	079	M	Darimu	PPC	2.29	208	Gonder
80	080	M	Darimu	PPC	2.41	211	Kotebe
81	081	F	Darimu	PPC	2.29	186	Dilla
82	082	M	Darimu	PPC	2.37	156	Haramaya
83	083	M	Darimu	PPC	2.41	195	Bahir Dar
84	084	F	Darimu	PPC	2.00	186	AAU
85	085	M	Darimu	PPC	2.71	210	AAU
86	086	F	Darimu	PPC	2.29	119	Bahir Dar
87	087	M	Darimu	PPC	2.14	157	Dilla
88	088	M	Hurumu	FPC	4.00	2.89	Gonder
89	089	M	Hurumu	FPC	3.6	1.56	Bahir Dar
90	090	M	Hurumu	FPC	3.20	2.41	Jimma
91	091	M	Hurumu	PPC	2.00	176	Dilla
92	092	F	Hurumu	PPC	2.00	141	Haramaya
93	093	M	Hurumu	PPC	2.29	154	Jimma
94	094	M	Hurumu	PPC	1.71	167	Jimma



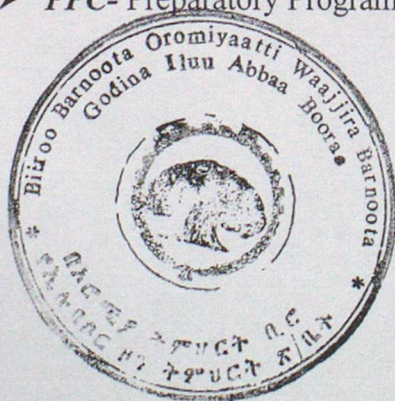
95	095	M	Hurumu	PPC	2.14	152	Bahir Dar
96	096	M	Hurumu	PPC	2.41	215	Haramaya
97	097	M	Hurumu	PPC	2.00	157	AAU
98	098	M	Hurumu	PPC	2.29	156	AAU
99	099	F	Hurumu	PPC	2.29	168	AAU
100	100	M	Hurumu	PPC	DNA	DNA	DNA
101	101	M	Yayo	FPC	3.4	2.5	Dilla
102	102	M	Yayo	FPC	3.6	1.88	Hawasa
103	103	F	Yayo	FPC	3.2	2.5	AAU
104	104	F	Yayo	PPC	1.71	176	Jimma
105	105	F	Yayo	PPC	2.14	128	
106	106	M	Yayo	PPC	2.29	149	Dilla
107	107	M	Yayo	PPC	2.41	157	Jimma
108	108	M	Yayo	PPC	2.41	170	Dilla
109	109	M	Yayo	PPC	2.14	165	Haramaya
110	110	M	Yayo	PPC	2.14	225	Dilla
111	111	M	Yayo	PPC	2.87	253	Dilla
112	112	M	Yayo	PPC	2.29	170	Jimma
113	113	M	Yayo	PPC	2.71	232	Mekelle
114	114	M	Chora	FPC	3.2	2.52	Dilla
115	115	M	Chora	FPC	3.4	2.80	Dilla
116	116	M	Chora	PPC	2.14	159	Bahir Dar
117	117	M	Chora	PPC	2.41	157	Bahir Dar
118	118	M	Chora	PPC	2.71	140	Mekelle
119	119	M	Dega	FPC	3.2	2.35	Dilla
120	120	M	Dega	FPC	3.2	2.37	AAU
121	121	M	Dega	PPC	2.29	162	Mekelle
122	122	M	Dega	PPC	2.00	158	Dilla
123	123	M	Dega	PPC	2.29	211	Haramaya
124	124	F	Dega	PPC	2.41	198	Dilla
125	125	M	Dega	PPC	2.29	224	AAU
126	126	M	Dega	PPC	2.14	156	AAU
127	127	M	Dega	PPC	2.29	214	Mekelle



128	128	F	Dega	PPC	2.14	184	Jimma
129	129	M	Dega	PPC	2.29	180	Gonder
130	130	M	Dega	PPC	2.00	150	Bahir Dar
131	131	M	Dega	PPC	2.00	141	Haramaya
132	132	M	Dega	PPC	2.00	119	Arbaminch
133	133	M	Bedele	FPC	3.4	2.30	Jimma
134	134	M	Bedele	PPC	2.41	191	Jimma
135	135	M	Bedele	PPC	2.14	176	Haramaya
136	136	M	Bedele	PPC	2.00	146	Bahir Dar
137	137	M	Gechi	FPC	3.2	1.73	Haramaya
138	138	M	Gechi	PPC	2.14	160	Mekele
139	139	M	Gechi	PPC	2.29	167	Jimma
140	140	M	Gechi	PPC	2.00	142	Dilla
141	141	F	Gechi	PPC	1.86	127	Bahir Dar
142	142	M	Gechi	PPC	2.29	138	Haramaya
143	143	M	Gechi	PPC	2.29	167	Dilla
144	144	M	Gechi	PPC	2.29	224	Haramaya
145	145	M	Gechi	DNA	DNA	DNA	DNA

N.B.

- **DNA**- Data Not Available.
- **EGSECE**- Ethiopian General Secondary Education Certificate Examination result.
- **EHEEQC**- Ethiopian Higher Education Entrance Qualification Certificate.
- **FPC**- Freshman Program Complete graduates.
- **PPC**- Preparatory Program Complete graduates.



Appendix VI

Pilot Test for Reliability of Measurement

The stability of **Form-01** is measured and confirmed by applying the Pearson's correlation coefficient in the following way.

S. No.	Name of Teachers Observed	First session score (x)	Second session score (y)	x ²	y ²	xy
1	Adamu Habte	62	74	3844	5476	4588
2	Mehamed Hasen	101	102	10201	10404	10302
3	Dereje Mekonnen	90	80	8100	6400	7200
4	Fekadu Shantu	92	91	8464	8281	8372
5	Molla Kebede	88	85	7744	7225	7480

$$\Sigma x = 433 \quad \Sigma y = 432 \quad \Sigma x^2 = 3853 \quad \Sigma y^2 = 37786 \quad \Sigma xy = 37942$$

$$r_{xy} = \frac{N \Sigma xy - \Sigma x \Sigma y}{\sqrt{\{N \Sigma x^2 - (\Sigma x)^2\} \{N \Sigma y^2 - (\Sigma y)^2\}}}$$

Where:

r_{xy} = The correlation between two sessions scores

N = number of subjects or teachers observed

Σ = the sum of the scores

Σx = sum of the first round observation

Σy = sum of the second round observation

Σx^2 = sum of the squares of the first round observation

Σy^2 = sum of the squares of the second round observation

Σxy = The sum of the product of the two round observation

$$r_{xy} = \frac{(5 \times 37942) - (433 \times 432)}{\sqrt{[5 \times 38353 - (432)^2][5 \times 37786 - (432)^2]}}$$

$$r_{xy} = \frac{189710 - 187056}{\sqrt{[191765 - 187489][188930 - 186624]}}$$

$$= \frac{2656}{\sqrt{9860456}}$$

$$= \frac{2654}{3140}$$

$$r_{xy} = 0.845$$

$$= \underline{\underline{0.85}}$$

The value of $r_{xy} = 0.85$ indicates that there is positive and very high relationship between the two sessions' observation and rating of the teaching effectiveness of the two groups' teachers. Therefore, the instrument, i.e., **Form- 01** is highly stable for the variable used in the investigation.

Appendix VII

Form-03 questionnaire is tested and confirmed by applying the split-half method in ordered to measure its internal consistency. Therefore, the Spearman-Brown prophecy formula is employed.

The responses of five respondent teachers on effective teaching in line with the key behaviors, i.e., lesson clarity, teaching method variety, teacher's task-orientation, learner's engagement into the learning process and moderate-to-high success rates.

Respondents	Scores				
	Sum of odd Nos (O)	Sum of even No.s (E)	O ²	E ²	OE
1	35	36	1225	1296	1260
2	35	33	1225	1089	1155
3	41	42	1681	1764	1722
4	34	37	1156	1369	1258
5	39	35	1521	1225	1365
	$\Sigma O = 184$	$\Sigma E = 183$	$\Sigma O^2 = 6808$	$\Sigma E^2 = 6743$	$\Sigma OE = 6760$

Whereas-

ΣE - The sum of even numbers scores

ΣO - The sum of odd numbers scores

ΣOE = the sum of the product of add and even numbers scores

$$r_{OE} = \frac{2x(6760 - 184x183)}{\sqrt{[5x6808 - 33856][5x6743 - 33489]}}$$

$$r_{OE} = \frac{33800 - 33672}{\sqrt{[34040 - 33856][33715 - 33489]}}$$

$$= \frac{128}{\sqrt{41584}}$$

$$= \frac{128}{203.92}$$

$$= \underline{0.63}$$

The above result indicates half of the questionnaire's reliability. Thus, in order to obtain the whole questionnaire's reliability in terms of its internal consistency, it is necessary to employ the Spearman- Brown prophecy formula.

The formula is: $r_{xy} = \frac{2r_{OX}}{1+r_{OX}}$

Where: r_{xy} - The relationship between each question in terms of internal consistency.

r_{OE} - The correlation between odd numbers and even numbers.

$$\begin{aligned} r_{xy} &= \frac{2 \times 0.63}{1 + 0.63} \\ &= \frac{1.26}{1.63} \\ &= \underline{0.77} \end{aligned}$$

Therefore, $r_{xy} = 0.77$ indicates that there is positive and high correlation coefficient of internal consistency between each questions.

Appendix- VIII

Form-04 questionnaires are also tested through the application of the split-half method to measure its internal consistency. Accordingly, the Spearman-Brown prophecy formula is employed to calculate the reliability of the instrument. Hence, the responses of twenty-nine respondent students on the effective teaching of the two groups' teachers in line with the key behaviors are shown in the table given below.

Scores					
Respondents	sum of odd no scores (O)	sum of even nos' scores (E)	O ²	E ²	OE
1	21	21	441	441	441
2	16	24	256	576	384
3	18	17	324	289	306
4	32	27	1024	729	864
5	29	31	841	961	899
6	31	28	961	784	868
7	29	29	841	841	841
8	20	22	400	484	440
9	22	21	484	441	462
10	14	16	196	256	224
11	19	21	361	441	399
12	9	15	81	225	135
13	16	17	256	289	272
14	15	14	225	196	210
15	30	26	900	676	780
16	21	26	441	676	546
17	19	23	361	529	437
18	19	23	361	529	437
19	19	20	361	400	380
20	15	18	225	324	270
21	12	21	144	441	252
22	23	17	529	289	391
23	21	23	441	529	483
24	22	20	484	400	440
25	19	18	361	324	342
26	25	26	625	676	650
26	27	25	729	625	675
28	18	16	324	256	288
29	27	21	729	441	567
	$\Sigma O=608$	$\Sigma E=626$	$\Sigma O^2= 13,70$	$\Sigma E^2=14,068$	$\Sigma OE=13,683$

$$r_{OE} = \frac{N \sum OX - \sum O \sum X}{\sqrt{[N \sum O^2 - (\sum O)^2][\sum E^2 - (\sum E)^2]}}$$

Where:

r_{OE} = The correlation between odd numbers and even numbers scores

N = Number of respondents

\sum = The sum of the scores

$\sum O$ = The sum of odd numbers scores

$\sum E$ = The sum of even numbers scores

$\sum OE$ = The sum of the product of odd numbers and even numbers scores

$$\begin{aligned}r_{OE} &= \frac{29 \times 13683 - 380608}{\sqrt{[29 \times 13706 - 369664][29 \times 14068 - 391876]}} \\ &= \frac{396807 - 380608}{\sqrt{[397474 - 369664][407972 - 391876]}} \\ &= \frac{16199}{\sqrt{[27810][16096]}} \\ &= \frac{16199}{\sqrt{447629760}} \\ &= \frac{16199}{21157} \\ &= 0.765 \\ &= \underline{0.77}\end{aligned}$$

$r_{OE} = 0.77$ indicates half of the questionnaires reliability. Thus, in order to obtain the whole questionnaire's reliability in terms of its internal consistency, it is necessary to employ the Spearman-Brown Prophecy Formula.

The formula is:

$$r_{xy} = \frac{2r_{OX}}{1 + r_{OX}}$$

Where:

r_{xy} - The relationship between each question in terms of internal consistency.

r_{OE} - The correlation between odd numbers and even numbers

$$r_{xy} = \frac{2 \times 0.77}{1 + 0.77}$$

$$= \frac{1.54}{1.77}$$

$$= 0.8700$$

$$r_{xy} = \underline{0.87}$$

Therefore, $r_{xy} = 0.87$ indicates that there is positive and very high correlation coefficient of internal consistency between each questions in the questionnaire.

Appendix IX

Cronbach or Coefficient alpha

This method is used to test the inter-raters' reliability. Accordingly, **Forms 01, 02 and 04** are tested to check the agreement made between them.

The formula is $\alpha = \frac{k}{k-1} \left[1 - \frac{\sum S^2_j}{S^2_x} \right]$

Where:

α = Inter-raters coefficient alpha

K = Number of inter-raters group

$\sum S^2_j$ - The sum of the variance between groups of subjects as rated by judges

S^2_x - The variance between groups of subjects under investigation

Groups	Judges (Inter-raters)		Total	
	A	B	C	
FPC	90	71	82	243
PPC	74	48	51	173
Total	164	119	133	416

- FPC- Freshman Program Complete graduates
- PPC- Preparatory Complete graduates
- A- Form- 01 rater
- B- Form- 02 rater
- C- Form- 04 rater

$$S^2A = \frac{\sum(A_i - \bar{A})^2}{N-1}$$

$$\bar{A} = \frac{90 + 74}{2} = \frac{164}{2} = 82$$

$$S^2A = \frac{(90-82)^2}{2-1} + \frac{(74-82)^2}{1} = \frac{64}{1} + \frac{64}{1} = \underline{128}$$

$$S^2B = \frac{\sum(B_i - \bar{B})^2}{N-1}$$

$$\bar{B} = \frac{71+48}{2} = \frac{119}{2} = 59.5$$

$$S^2B = \frac{(71-59.5)^2}{2-1} + \frac{(48-59.5)^2}{1} = \frac{132.25}{1} + \frac{132.25}{1} = \underline{264.5}$$

$$S^2C = \frac{\sum(C_i - \bar{C})^2}{N-1}$$

$$\bar{C} = \frac{82+51}{2} = \frac{133}{2} = \underline{66.5}$$

$$S^2_c = \frac{(82-66.5)^2 + (51-66.5)^2}{2} = \frac{240.25 + 240.25}{2} = \underline{480.5}$$

$$S^2_x = \frac{\sum(x-x)^2}{2} = \frac{X}{2} = \frac{243+173}{2} = \frac{416}{2} = 208$$

$$S^2_x = \frac{(243-208)^2 + (173-208)^2}{2-1} = \frac{1225 + 1225}{2-1} = \underline{2450}$$

$$\alpha = \frac{k}{k-1} \frac{(1 - \frac{\sum s^2_j}{S^2_x})}{3-1} = \frac{3}{3-1} \frac{[1 - \frac{128 + 264.5 + 480.5}{2450}]}{2}$$

$$= \frac{3}{2} \frac{[1 - \frac{873}{2450}]}{2}$$

$$= \frac{3}{2} (1 - 0.36)$$

$$= \frac{3}{2} (0.64)$$

$$\alpha = \underline{0.96}$$

The result shows that there is high agreement between the raters or the judges of different questionnaires about the effective teaching of the groups under investigation.

Appendix – X

Form -01

Scores of FPC teacher education graduates' teaching effectiveness as observed and rated by their department heads (sample-1).

98	98	108	100	70	89	100	95	96
89	99	78	89	90	100	97	85	102
80	82	94	68	90	98	74	100	110

Scores of PPC teacher education graduates' teaching effectiveness as observed and rated by their department heads (sample 2)

102	73	103	82	63	70	87
93	93	65	88	67	51	95
98	81	83	90	76	74	75
93	68	83	95	64	84	92
94	73	58	63	61	90	83

Samples of the groups	Mini	Max	Mean Scores (\bar{x})	Variiances (S^2)	Number of Cases (N)
FPC	68	110	91.81	117.46	27
PPC	51	103	80.29	186.03	35

$$\begin{aligned}
 t &= \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(N_1 - 1)S_1^2 + (N_2 - 1)S_2^2}{(N_1 + N_2) - 2} \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}} \\
 &= \frac{91.81 - 80.29}{\sqrt{\frac{(27 - 1)117.46 + (35 - 1)186.03}{60} \left(\frac{1}{27} + \frac{1}{35} \right)}} \\
 &= \frac{11.52}{\sqrt{\frac{26(117.46) + 34(186.03)}{60} \left(\frac{1}{27} + \frac{1}{35} \right)}} \\
 &= \frac{11.52}{3.21}
 \end{aligned}$$

t = 3.59

Form -02

The Average scores of 27 FPC graduates
Teaching effectiveness as rated by
20 directors and vice directors

141	117	120	144
144	163	139	148
170	143	155	108
150	96	146	157
141	130	142	173

The Average score of 35 PPC
graduates' teaching effectiveness
by 20 directors and vice directors

97	86	105	103
20	128	82	129
155	139	109	72
133	117	124	99
123	121	90	149

Samples of The groups	Mean score (\bar{x})	Variance (S^2)	Number of Cases (N)
FPC	141.35	380.66	20
PPC	114.05	498.79	20

$$\begin{aligned}
 t &= \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(N_1-1)S_1^2 + (N_2-1)S_2^2}{(N_1+N_2)-2} \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}} \\
 &= \frac{141.35 - 114.05}{\sqrt{\frac{(20-1)380.66 + (20-1)498.79}{(27+35)-2} \left[\frac{1}{20} + \frac{1}{20} \right]}} \\
 &= \frac{27.3}{\sqrt{439.725(0.1)}} \\
 &= \frac{27.3}{\sqrt{43.97}}
 \end{aligned}$$

t = 4.12

Form -04

Scores of FPC teacher education
Graduates' teaching effectiveness
as rated by their students (sample 1)

88 84 74 81 57 80 80 85 81
81 84 69 66 67 75 79 94 81
96 90 84 59 76 82 47 85 95

scores of PPC teacher education
graduates' teaching effectiveness
as rated by their students (sample 2).

96 50 71 77 57 54 74
75 74 47 61 79 55 84
73 83 88 86 66 54 47
68 52 82 86 72 52 94
80 88 81 55 64 47 91

Samples of the groups	Mean score (\bar{x})	Variance (S^2)	Number of Cases (N)
FPC	78.52	135.03	27
PPC	70.37	225.95	35

$$\begin{aligned}
 t &= \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(N_1 - 1)S_1^2 + (N_2 - 1)S_2^2}{(N_1 + N_2) - 2} \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}} \\
 &= \frac{78.52 - 70.37}{\sqrt{\frac{(27 - 1)135.03 + (35 - 1)225.95}{(27 + 35) - 2} \left(\frac{1}{27} + \frac{1}{35} \right)}} \\
 &= \frac{8.145}{\sqrt{\frac{(3510.78) + 7682.3}{60} (0.066)}}
 \end{aligned}$$

t = 2.33

Appendix -XI
The Freshman and Preparatory Program Complete teacher education graduates teaching effectiveness
in accordance with the universities from which they graduated

Graduates of Jimma		Graduates of Dilla		Graduates of AAU		Graduates of Haramaya		Graduates of Bahr Dar		Graduates of Mekelle		Graduates of Hawassa		Graduates of Gondar		Graduates of Adama		Graduates of A/Minch	
Score	Group	Score	Group	Score	Group	Score	Group	Score	Group	Score	Group	Score	Group	Score	Group	Score	Group	Score	Group
89	FPC	80	FPC	98	FPC	108	FPC	73	PPC	102	PPC	93	PPC	83	PPC	82	FPC	82	PPC
98	PPC	98	FPC	99	FPC	65	PPC	70	FPC	91	PPC	100	FPC	89	FPC				
93	PPC	93	PPC	81	PPC	89	FPC	100	FPC	94	FPC	97	FPC						
68	PPC	63	PPC	68	FPC	88	PPC	61	PPC	90	FPC								
103	PPC	100	FPC	63	PPC	76	PPC	74	PPC	95	PPC								
83	PPC	70	PPC	64	PPC	95	PPC												
58	PPC	51	PPC	96	FPC	75	PPC												
90	FPC	95	FPC	90	PPC	110	FPC												
90	PPC	85	FPC	73	PPC														
73	FPC	100	FPC	74	FPC														
98	FPC	84	PPC																
67	PPC	92	PPC																
87	PPC	83	PPC																
102	FPC																		
$\sum x_1 = 1199$		$\sum x_2 = 1094$		$\sum x_3 = 806$		$\sum x_4 = 706$		$\sum x_5 = 378$		$\sum x_6 = 475$		$\sum x_7 = 290$		$\sum x_8 = 172$					
$\bar{X}_1 = 85.6$		$\bar{X}_2 = 84.2$		$\bar{X}_3 = 80.6$		$\bar{X}_4 = 88.3$		$\bar{X}_5 = 75.6$		$\bar{X}_6 = 95$		$\bar{X}_7 = 96.7$		$\bar{X}_8 = 86$					
$S_1^2 = 197.6$		$S_2^2 = 226.5$		$S_3^2 = 201.4$		$S_4^2 = 253.6$		$S_5^2 = 212.3$		$S_6^2 = 19$		$S_7^2 = 12.3$		$S_8^2 = 18$					

$$SSw = \sum [(n_j - 1)S_j^2] = (14 - 1) 197.6 + (13 - 1) 226.5 + (10 - 1) 201.4 + \dots + (2 - 1) 18$$

$$= \underline{9842.4}$$

$$SSb = \sum [n_j (x_j - \bar{x})^2] = 14(85.853)^2 + 13(84.2 - 85.3)^2 + 10(80.6 - 85.3)^2 + \dots + 2(86 - 85.3)^2$$

$$= \underline{1641.65}$$

$$SSt = SSb + SSw = 9842.4 + 1641.65$$

$$SSt = \underline{11484.05}$$

$$MSw = \frac{SSw}{N-J}$$

$$= \frac{9842.4}{60-8}$$

$$= \frac{9842.4}{52}$$

$$MSw = \underline{189.3}$$

$$MSb = \frac{SSb}{j-1}$$

$$= \frac{1641.65}{8-1}$$

$$= \frac{1641.65}{7}$$

$$MSb = \underline{234.5}$$

$$F = \frac{MSb}{MSw}$$

$$= \frac{234.5}{189.3}$$

$$F = \underline{1.24}$$

Summary of the teaching effectiveness scores of the two groups of teachers graduated from different universities.

Sources of variance	SS	df	MS	F
Between groups (major)	1641.65	7	234.5	1.24*
Within groups (error)	9842.40	52	189.3	
Total	11484.05			

*p>0.05

$$\eta^2 (n) = \frac{SSb}{SSt} = \frac{1641.8}{11484.05} = 0.1438 \quad \eta^2 \times 100\% = 14.44\%$$

Appendix- XII

Preparatory Program Complete Teacher education graduates academic achievement as measured by EGSECE (x) and their on-the-job effectiveness as rated by their respective department heads (y).

Teachers Code	x	y	x ²	y ²	xy
04	2.37	3.64	5.62	13.25	8.63
07	2.41	3.32	5.81	11.02	8.00
13	2.14	3.50	4.58	12.25	7.49
17	2.00	3.32	4.00	11.02	6.64
23	2.41	3.36	5.81	11.29	8.10
26	2.28	2.61	5.20	6.81	5.95
29	2.00	3.32	4.00	11.02	6.64
32	3.00	2.89	9.00	8.35	8.67
36	2.41	2.43	5.81	5.9	5.86
41	2.14	2.61	4.58	6.81	5.89
45	2.86	3.68	8.18	13.54	10.52
49	1.71	2.32	2.92	5.38	3.97
52	2.29	2.96	5.24	8.76	6.78
55	1.71	2.96	2.92	8.76	5.06
58	2.30	2.07	5.29	4.28	4.76
63	2.86	2.93	8.18	8.58	8.38
72	2.00	3.14	4.00	9.86	6.28
75	2.41	3.21	5.81	10.30	7.74
78	2.37	3.39	5.62	11.49	8.03
81	2.29	2.25	5.24	5.06	5.15
84	2.00	2.25	4.00	5.06	4.50
93	2.29	2.39	5.24	5.71	5.47
96	2.41	2.71	5.81	7.34	6.53
99	2.29	2.29	5.24	5.24	5.24
105	2.14	2.19	4.58	4.78	4.69
108	2.41	2.50	5.81	6.25	6.03
111	2.88	1.82	8.29	3.31	5.24
117	2.41	2.64	5.81	6.97	6.36
122	2.00	3.00	4.00	9.00	6.00
125	2.29	3.21	5.24	10.30	7.35
128	2.14	3.11	4.58	9.67	6.66
131	2.00	3.39	4.00	11.49	6.78
135	2.14	2.68	4.58	7.18	5.74
140	2.00	3.29	4.00	10.82	6.58
143	2.29	2.96	5.24	8.76	6.78
	$\sum x = 76.5$	$\sum y = 184.73$	$\sum x^2 = 100.34$	$\sum y^2 = 295.61$	$\sum xy = 228.49$

$$r_{xy} = \frac{(35 \times 228.49) - (76.65 \times 100.34)}{\sqrt{(35 \times 184.23) - (76.65^2)(35295.61 - (100.34^2))}}$$

$$r_{xy} = \frac{7997.15 - 7691.06}{\sqrt{(6448.05 - 5875.22)(10346.35 - 10068.12)}}$$

$$r_{xy} = \frac{306.09}{\sqrt{(572.83)(278.23)}}$$

$$r_{xy} = \frac{306.09}{\sqrt{159378.49}}$$

$$= \frac{306.09}{399.22}$$

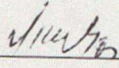
$$r_{xy} = \underline{+0.77}$$

$r^2 = 0.59$ (59%) of the group's being less effective in teaching is as a result of weak academic achievement, whereas 49% might be by other factors. This implies that had the group been high academic achiever, they would have most probably by 59% effective in teaching.

DECLARATION

I, the undersigned, hereby declare that, this thesis is my original work and has not been presented for a degree or any other purpose to any university, done under the guidance of **Dr. Ambissa Kenea** and that all relevant sources used for the thesis have been dully acknowledged.

Name Tesfaye Getachew

Signature 

Date 26/06/08

This thesis has submitted for examination with my approval as university advisor.

Name Ambissa Kenea (Ph.D)

Signature 

Date 26/06/08

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