

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

**Occurrence and development of maize stalk borer,
Busseola fusca (Fuller) (Lepidoptera : Noctuidae) on finger millet
and wheat in north western Ethiopia.**

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Occurrence and development of maize stalk borer, *Busseola fusca* (Fuller)
(Lepidoptera: Noctuidae) on finger millet and wheat in north western
Ethiopia.

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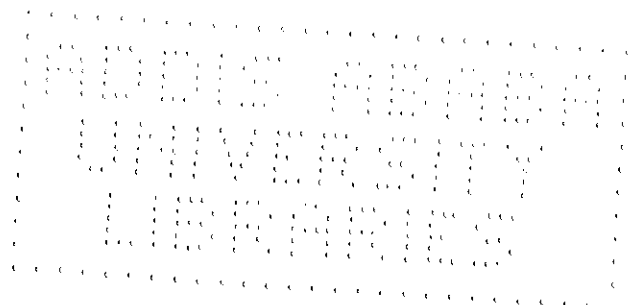
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ABSTRACT

Concern in teaching denotes the tendency of being more preoccupied about a given aspect of teaching than to another. In this study an attempt is made to look at the variation of its occurrence interms of levels of experience (≤ 5 years, 6-14 years, ≥ 15 years), sex (male, female) and qualification (Diploma, TTI) of teachers.

Questionnaires were given to 503 teachers who were instructors of 25 selected schools from Addis Ababa region from which 425 questionnaires were collected. After removing those whose initial and later qualification appeared different and those who were attending further education, only 249 were found most appropriate for the study. By random sampling 120 were taken from this target population; 10 from each cluster of experience, sex and qualification.

The multivariate and univariate analyses indicated a significantly higher level of self concern for less experienced teachers. Also females were found to have higher self concern than males with no variation for the qualification levels. Regarding task concern both medium and highly experienced teachers depicted greater concern compared to less experienced ones though the difference between the two was non-significant. Also sex as well as qualification differences were non-significant.

As to student concern, highly experienced teachers showed a statistically higher concern over less experienced teachers while the difference with medium experienced teachers was non-significant. Difference interms of sex was observed for female teachers showing higher student concern than male teachers. But no difference was observed between Diploma and TTI qualified teachers. Based on these results, possible explanations, conclusions and recommendations were made.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Problem

In the past three decades research studies have been conducted on the professional growth of teachers (Kagan,1992). According to Kagan, professional growth in teaching denotes change in behavior, knowledge, images, beliefs, perceptions etc. of teachers over a period of time. The concept of professional growth implies a process of continued attainments (Zak and Morowitz, 1980). From studies of professional growth, though the changing of teachers is a well documented fact, description of such changes remained controversial and topics of discussion (Reeves and Kazelskis, 1985). In addition, eventhough there are some reports about the attempts made to develop a model representing teacher development and their professional life cycle (Kagan, 1992; Huberman, 1993) no attempt was made in many of them to prop the models up with empirical research (Kagan, 1992). Only some of the notable approaches that tried to look at the process are:

1. A theory of developmental stages of concerns by Fuller (1969) which presents three distinguishable kinds and stages of concerns through which, as she believes, teachers pass as they gain professional experience. By concern it means some aspects of teaching tasks to which a teacher gives more thought than others (Borich, 1988). While they are involved in the

teaching profession, teachers put varying consideration of their teaching tasks. She classified the aspects of teaching to be of concerns for teachers into three - self (survival) concern, task concern and pupil (impact) concern.

Survival concern posits preoccupation with one's own adequacy; task concern denotes concentration on teaching tasks and impact concern occurs when teachers become preoccupied about the impact of their teaching upon their students.

2. A cognitive developmental framework - this is based on theories of cognitive development and is advocated by Sprinthall and his associates (Veenman, 1984). This model emphasizes that "teacher development is considered as a form of adult development and effective teaching is a function of higher stages" (Feiman-Nemser and Floden, 1986). The stages (sequence of cognitive structures) are organized as invariant and hierarchical from simple to complex; and at higher levels of development more complex functioning, broad perceptions of problems, emphatic responses to others needs (Veenman, 1984), "increased flexibility, differentiation of feelings, respect for individuality, broader social perspective" (Feiman-Nemser & Floden, 1986) are to occur.
3. The third approach is the one emphasizing teachers' own definition of their needs (Feiman-Nemser & Floden, 1986). Here building the motivation of teachers in order to take responsibility and supporting them in their own directions of growth are emphasized. Teacher development is described as stages which culminate whenever a teacher is able to take responsibility for

curricular decision making. "Teachers who reach the final stage will have responsive and diversified classrooms where students have many opportunities to make choices about their learning" (Feiman-Nemser & Floden, 1986).

In this study a special interest is given to the work of Fuller suggesting an approach to teachers' change (growth) based on their concerns. Her approach appears viable and has influenced many subsequent studies (Reeves and Kazelskis, 1985). Feiman-Nemser & Floden (1986) also witnessed that the approach of Fuller to teacher development based on teachers' expressed concerns can be taken as a provisional description. Though the suggestions of other authorities regarding teachers' concerns can be encompassed by the categories given by Fuller, the particular effect of teachers' level of experience upon the occurrence of these concerns remained controversial. So by taking teachers at various levels of experience as well as by considering teachers' sex and qualification as the probable attributes of variation in concerns, this study intended to see the concerns of teachers in Addis Ababa region.

1.2 Statement of the Problem

In the teachers' teaching and planning process some of the aspects of their teaching will be of greater concern than others (Borich, 1988). Fuller's (1969) description of the categories of concerns represent the general classes of concerns though suggested in different ways by other authorities (Cruickshank, 1982;

Houston and Felder, 1982). In describing the features of the concerns Fuller stated that self or survival concern involves concerns about one's adequacy and survival as a teacher, concerns about class control, and whether to be liked by students and to be favourably evaluated by them or by principals etc. On the other hand task or subject matter concern includes teaching situation concerns i.e. concerns regarding the limitations in the teaching situation, methods and materials, mastery of skills with in the teaching-learning situation and other related aspects. Finally student or impact concern refers concern about the learners-about fulfilling their social and emotional needs, about how to relate with them etc. (Veenman, 1984).

Later studies regarding teachers' concerns also accepted such descriptions; but one problem is on the occurrence of the concerns i.e. which aspects of teachers' concerns are experienced earlier and which ones will come later has been the topic of interest.

If we take the different positions, for eg, fuller stated that, although the pace to pass through them and their level of intensity may vary from teacher to teacher, almost all teachers are expected to move from self-concern to task concern and then to student concern. She explained the patterns of development of concerns in relation to the tendency of human beings to be preoccupied with basic needs until they are satisfied. The beginner teachers' most basic need is to survive and until this is satisfied concerns about task or students can not emerge (Feiman-Nemser & Floden, 1986). On the other hand the most experienced teachers display on student centered concerns (Fuller, 1969). Some later researchers [Hall and Jones (1976),

Briscoe (1972) both cited in Pataniczek and Isaacson (1981), Fullan (1972) cited in Lee (1973), Pye (1989) cited in Cullingford (1995) and Capel, Leask and Turner (1995) also postulated that concerns are not only predictable but their sequence is from concern about "self" to "task" and then to "student". On the other hand other, studies revealed a different result in the occurrence of concerns for teachers at various levels of experiences. Reeves and Kazelskis (1985), for example, indicated student concerns as the highest for both preservice and inservice teachers. Adams (1982) also found that student concerns appeared to be consistently higher across different experience levels. Such studies are in contrast to Fuller's and others' position which posits student centered concerns as being at a high level of experience and commitment.

As regards gender, one may assume possible difference in concerns of male and female teachers perhaps based on their difference in classroom behavior. Studies of teachers' classroom behavior indicate that male teachers are more attached to the transmission of content of knowledge (Huberman, 1993), have more centrally organized and teacher dominated classrooms (Adams and Biddle, 1970; cited in Dunkin, 1986) than female teachers. But female teachers appear to be "warmer" and their classes are more relaxed and disposed towards discussion. However, whether these characteristics can be used to infer about their concerns remains to be examined.

The other point of interest that should be raised is the possible effect of qualification on teachers' concerns. In some studies, conducted by involving elementary and secondary school teachers' concerns (Houston and Felder, 1982; Veenman, 1984), no specific conclusion was made regarding the presence of difference. Only Adams (1982) reported a more child centered style of teaching among elementary school teachers and a more subject matter approach among secondary teachers. However, the general conception about the effect of qualification is that adequate preparation enables teachers to become more effective and treating individual differences (Dewalt and Bal, 1987). According to Good and Brophy (1987) adequate knowledge about how students learn and develop is important for teachers to adapt their behavior in terms of their students' needs. Based on such views some differences could be expected regarding the concerns of teachers with different qualifications.

This being the case, it may be noted that emphasis has not been given in Ethiopia^{tv} teachers' concerns. In addition our teachers have little practical experience during their training programme and even in this very short practical experience no mentors are assigned to assist them in various aspects of their teaching. They are expected to directly apply what they have learned theoretically in their classrooms and they are to be evaluated on it. So it is unlikely to expect those concerns to be resolved and mastered appropriately.

Moreover, it is true that situational factors will have a sort of influence upon the extent of teachers' concerns (Veenman, 1984) and there are reports about a number of problems that our teachers experience in their schools. Such as shortage in the supply of teaching materials, the conditions of school facilities, large class size, lack of desire to learn on the part of students etc. (Legesse, 1992). Based on such facts the writer wants to look at the extent of teachers' concerns in terms of teachers' extended years of experience by dividing it into different levels, in terms of their sex and in terms of their qualification by taking teachers from Addis Ababa region. For this purpose an attempt will be made to answer the following basic questions.

1. Do teachers at different experience levels differ in (the extent of) their concerns?
2. Do male and female teachers differ in (the extent of) their concerns?
3. Do T.T.I. and Diploma holder teachers differ in (the extent of) their concerns?
4. Which category(ies) of concern(s) tend to be exhibited at higher extent for the separate levels of experience, sex and qualification?

1.3 Objectives of the Study

The main objectives of this study are:-

- to investigate if there is variation in self, task and pupil concerns of teachers' along experience, sex, and qualification.

- to identify the category(ies) of concern(s) which is/are/ highly exhibited by teachers in terms of the separate levels of experience, sex, and qualification.

1.4 Significance of the Study

The study of teaching helps those who are concerned about it in one way or another to understand and improve (the process of) learning (Anderson and Burns, 1989). Among the components that contribute to educational outcomes at a classroom level, the teacher is the most important one (Creemers, 1994). So the study of teachers may lead to the rise of their contribution to the desired educational outcomes.

Investigation of teachers' classroom concerns in relation to their level of experience, sex and qualification will be helpful to teacher training institutions, teacher education colleges, government agencies and educational planners in order to mold their preservice and inservice training programs in a way that takes into account the trainees mode of concern and also to enable them "to plan learning experiences that will facilitate growth to more mature and complex levels of functioning" (Arends 1994). In addition, as Bell and Gilbert (1996) emphasized, a teacher development program should be designed by incorporating and addressing the teachers' beliefs, experiences, concerns, etc.

The study will also be helpful for concerned educational planners to be aware of the problem areas of teachers for the sake of taking remedial actions. For example, as Arends noted, if a beginning teacher is overly worried about personal concerns, he/she might require experiences and training that help him/her to build confidence and independence. If problem is related to class control, ways to improve the situation can be sought.

1.5 Delimitation of the Study

The study was directed to look at teachers' concerns which are related to themselves, their task and their pupils'. These were to be seen in terms of teachers' experience, sex and qualification. And the study was conducted in Addis Ababa region by taking elementary school teachers who have T.T.I. and Diploma qualifications. Those who hold Bachelors' degree were excluded from the study because, in the first place most of the present day highly experienced teachers with this qualification in the region have passed through a number of educational levels.

So it was very difficult and tiresome to get teachers whose initial qualification is bachelors degree and persisted to serve for a long period of time with this qualification. Secondly, it is observed that there is a trend today in this region to hire teachers with Bachelors qualification who are not trained to be teachers. Since the very purpose of this study is to deal with those who are trained as teachers those trained in applied fields would affect this purpose. But those teachers with T.T.I. and Diploma qualifications are basically trained to be teachers and so

the extraneous effects are assumed to be minimal and are within the writer's scope of effort to control them.

1.6 Limitation of the Study

The absence of adequate written materials and research works especially regarding the relationships of teachers' sex and qualification to their concerns basically restricted the researcher to justify his study in terms of some theoretical explanations of teachers' characteristics as related to their sex and qualification.

1.7 Definition of Terms

- **Concern** - in teaching it denotes an aspect of teaching task that a teachers gives more thought than to another aspect (Borich, 1988).
- **Experience** - in this study it denotes the number of years of teaching one has been involved in.
- **Self concern** - concerns related to one's adequacy for class control, receiving favourable evaluation of one's teaching, being liked by students, feeling of inadequacy (Reeves and Kazelskis, 1985).
- **Student concern** - concerns about diagnosing students' learning problems, motivating them, bothering about their intellectual and emotional growth (Veenman, 1984).

- **Task concern** - concerns about being responsible for too many students, lack of instructional materials, time for class preparation (Reeves and Kazelskis, 1985).
- **Qualification** - the level of training with which teachers are trained to teach. In this study teachers with Diploma and T.T.I. (Teaching Training Institute) levels of training are considered.

CHAPTER TWO

LITERATURE REVIEW

2.1 Aspects of Teachers' Concerns

“Teaching is a complex cognitive activity undertaken in an interactive setting” (Sykes, 1986). Handerson and Lanier (1973) noted that it involves manipulation of variables of instruction in order to come up with changes in students' behavior. They classified the variables of instruction into three broad classes: those related to people (humans) inhabiting the classroom, those related to the classroom environment (materials, supplies, equipment etc.) and those related to the curriculum (mainly to the content to be taught: its substance, structure and purpose). In relation to these “teaching also requires the practitioner to juggle a wide range of competing demands and to manage a series of trade offs based on a corresponding set of practical dilemmas” which may arise from relations with students, from the curriculum and from societal expectations (Sykes, 1986). Here in the process of engagement in instruction and manipulating its variables as well as in dealing with various dilemmas, teachers give more thought to certain things than to others i.e., they may be highly concerned about some aspects of their task than to other aspects. Here, concern denotes a sort of preoccupation about something; it is not the same as thinking that something is important but it is thinking about something frequently and wanting to do something about it personally (Fuller and George, 1980 cited in Arends, 1994). The degree to which teachers are

preoccupied about various things may vary but as far as the act of teaching is concerned there are a number of things that teachers are preoccupied with.

In analyzing the concerns of teachers authorities used different approaches. On the one hand, some suggest the things which can be of concerns to teachers from their own conceptual inferences and organization of observations about classroom activities which can be of bothersome to teachers. Some others employed the techniques of factor analysis to come up with different dimensions of concerns (Cohen, Mirels and Schwebel, 1972; Myers, Kennedy and Cruickshank, 1979).

Houston and Felder (1982) collected data from 52 beginning elementary and secondary teachers regarding their conception of the teaching world, their concerns and their problem coping strategies. From the organization of the data regarding their concerns they identified three areas. In the first place teachers are found to be concerned about the expectations of principals and fellow teachers. They fear that they would encounter unknown expectations and fall short in the eyes of others. They become unsure of whether they have achieved what was expected. Secondly, teachers are also appeared to be concerned about classroom management and discipline. They bother about the type of behavior guidelines they should establish, about how they would discipline a student, about what to do in case when a student is refused to co-operate. The other area of concern was regarding planning and preparing for school. They bother about how to organize their classes and group

their students, what to do if they ran out of work for their students, how to begin the first class etc.

On the other hand, Brown and McIntyre (1993) identified some important themes which are to be covered in different aspects of teaching and which can be of the possible things that bother teachers. According to them teachers bother about the maintenance of interest and enthusiasm among pupils, about how to diffuse actual or potential disciplinary problems, about how their planning interacts with their classroom management and lessons, about how to deal with pupils' errors, and on how to provide clear explanations and help for pupils. In addition to these Capel, Leask and Turner (1995) added the management of time and stress, the lack of books and equipment, how to deal with one's feeling etc. as important things with which teachers tend to bother about.

Also Field and Field (1994) presented teaching elements which are common in the day to day interaction of the teacher in the classroom. So since these elements are to be exhibited day to day we can see that they have the power to attract the thoughts of teachers and to bother them. The authors put these elements as - those related to their teaching practice i.e. knowledge of content and justification of its value, knowledge and usage of a wide range of teaching strategies; those related to student needs - under this understanding of how students develop and learn, recognizing and responding to their individuality as well as fostering independent learning among them; those related to the teacher's

relationship in general i.e. developing positive relationship with students, managing their behavior, establishing and maintaining clear expectations for them are emphasized; and the teachers' planning and evaluation of learning programs, assessment strategies etc. are important components in the day to day classroom interaction which may have the power to bother and preoccupy teachers' thoughts.

Another conception about the aspects of teachers' concerns is given by Bell and Gilbert (1996). In their analysis of the professional lives of teachers after completing their initial teacher education, they come up with important aspects of teachers' concerns. According to them teachers have a concern about the continuity of students' learning. The purpose of learning is to result in change of behavior (Morgan et al., 1986); and in turn this is not to be resulted by teaching every bit from one time to another; rather there should be some sort of organization and link between what is learned in the past and in the present; and according to Bell and Gilbert (1996) as students move through the various structural sectors of schooling, continuity of their learning becomes an ongoing concern for many teachers. The other concern of teachers is progression of students which, according to Bell and Gilbert, entails "the continuous raising of the requirements laid on students over the duration of their schooling" i.e., the change of behavior is progressive and in an additive or increasing manner; students learn an increased number of concepts adding to what they already learnt; and here teachers' concerns are focused on "what to teach when and on responding to accountability measures of their teaching" (Bell and Gilbert, 1996).

The students' diversity or differentiation in terms of their educational, psychological, physical, socio-economic and cultural circumstances is another source of concern for teachers (Postlethwaite, 1993 cited in Bell and Gilbert, 1996).

In a classroom the teacher is required to deal with as varied personalities as there are children. Because each human being is unique, every student needs a different kind of attention. So in our relation with students, we have to take into account the fact of their individuality (Cullingford, 1995). Knowing students' diversity is essential for teachers to gear the students' learning in terms of their learning skills and attainment status (Bell and Gilbert, 1996). It is a basic means to meet their interests, values and abilities (Cole and Chan, 1994). So the existing individual difference in the classroom is of concern for teachers in terms of its value in adapting instruction to the individual students. As Stern (1995) noted "good learning goes on when different pupils are all able to learn."

In addition to the continuity of students' learning, their progression as well as the differentiation of students, Bell and Gilbert also identified other sources of concern. Teachers have a fear of losing control in the classroom. Beyond the security that they feel while teaching their success in keeping control in the classroom gives them a sense of worth and competence. They assume that being a teacher who has a good classroom control will enable one to have a reputation amongst colleagues. Also the teacher may feel uncertain and insecure about the amount and extent of teacher intervention in providing students the essential information. So whether the teacher is going to impose major influence on the

students progress or if that is to be with a lesser extent will be one basic source of concern for him. Beyond these Bell and Gilbert also suggested that teachers do have a concern about their content coverage i.e. they need to assure that the curriculum is being covered and that their students are not at a disadvantage; they need to feel secure about their knowledge of the subject they teach as well as of concern to many teachers is their relationship with their students; most of them need to be personally liked and professionally respected by their students.

Similarly in his conversation with individual teachers Tickle (1994) identified their concerns revolve in the areas of the work rates of students, how to motivate low achievers so as to improve their capability, how to adjust their ability and maintain high standards of work, how to provide help to children with special educational needs etc. which reflect a pattern in relation to the learning of pupils. Also after a retrospective investigation of problems or concerns teachers faced especially at the beginning of their career, Marti and Huberman (1993) infer three categories for their concerns i) personal concerns which they relate them to financial problems, family concerns, difficulties in adapting to society etc. which are some how far from the actual teaching sphere of teachers; ii) concerns related to pedagogical aspects of teaching. Under this relationships with students, mastery of subject to be taught, relationships with the institution and the teachers' perceived preparedness for the profession are included. iii) the other areas of concern are in relation to affective or emotional issues which are related to self-perception, satisfaction, enthusiasm etc. of teachers.

As it is mentioned earlier the other approach used by authorities in analyzing the concerns of teachers is by using factor analysis to identify different dimensions.

One earlier study by Cohn, Mirels and Schwebel (1972) took 139 student teachers for their purpose. Factor analysis of 122 items, which are intended to measure a wide range of teachers' concerns resulted in eight basic dimensions. For convenience of understanding they are presented in a table form.

<u>Dimension of Concern</u>	<u>Description</u>
1. Concern with being an effective teacher	- Active commitment for creating a classroom environment conducive to students' learning and social growth.
2. Class control	- Concern with discipline and establishing authority over pupils.
3. Pupil concerns	- Concern over presentation of instruction and materials and proceeding the teaching-learning process in ways which meets the particular needs of the individual pupils.
4. Need for support	- Concern on feeling comfortable and secure in the classroom.
5. Evaluation by supervisors	- Concern on being evaluated and its consequence.
6. Self adequacy in the classroom	- Concern over self appraisal.

7. Managing interpersonal and administrative problems - Concern with meeting the interpersonal and administrative requirements of personnel in the school setting.
8. Social desirability - Concern over conducting formal teaching duties and relationships with other staff members in a manner consistent with social conventions.

The other factor analytic study is conducted by Myers, Kennedy and Cruickshank (1979). In their study of the relationship of teacher personality variables to their perceived problems they presented 105 problem statements to teachers of grade seven to twelve. The teachers were required to indicate whether the problem was "bothersome" or "not bothersome" and whether in their experience the problem occurred "frequently" or "infrequently." The later analysis of both responses and subsequent varimax rotation resulted in five major factors. The factors are explained as five areas of teachers' concerns in the later study of Cruickshank (1982).

Affiliation - this refers to teachers' needs to establish and maintain positive interpersonal relationships with colleagues as well as with pupils. By their character teachers are relatively gregarious, and if they fail to achieve this goal they feel alone, being unnoticed, unworthy, alienated or even rejected.

Control - this refers to the need to have students behave properly. Teachers in general want their students to be relatively quiet, orderly and courteous. They also want them to be honest and to respect other people. The students' failure to be in these lines lead a teacher to become frustrated and as a result to be hostile.

Parent relationships - teachers also need to work well with other people who will play important roles in the lives of students, such as parents. They consider a mutual and supportive relationship with parents as desirable in their effort to teach students.

Student success - teachers do have the desire to have the knowledge, skills and attitudes that will enable them to help students succeed academically and socially.

Time - another area of concern is regarding time management. Teachers need to make use of time efficiently and effectively.

However, a markedly organized theory about the concerns of teachers is first given by Fuller (1969). Her work upon student teachers, beginning teachers, and more experienced teachers and her review of studies conducted regarding teachers' problems and concerns come up with three distinct clusters of concerns which she assumed to be organized as phases. These are *self concern*, *task concern* and *student concern*. This theory of concern has influenced many subsequent studies conducted in the areas of teachers' concerns (Reeves and Kazelskis, 1985)

and suggested as a provisional description of teacher development (Feiman-Nemser and Floden, 1986). Directly or indirectly the various aspects of teachers' concerns that authorities suggested in the above discussion revolve around the teachers' 'survival' (self), their task and the pupils they teach. It is due to this that the theory is suggested as a provisional description of teachers development in general and concerns in particular.

With regard to the areas of concern which are believed to be desirable, authorities suggest teachers' primary-concerns to be centered around those related to their pupils. For example, Cullingford (1995) stated that investigating what our students already know and brought to their present learning and what is happening to them should be at the centre of every teachers' concern. Also for Goodlad (1984) the creation of best learning atmosphere occurs when ever an active interest is taken to the learning problems of students. "Better teaching is probably associated with concerns about pupils rather than concerns about self." (Fuller and Bown, 1975). Even at the early years of teaching it is advisable for teachers to focus on "what are the students understanding?" rather than on "how well are the lessons going?" (Scandamalia and Bereiter, 1989). All these imply the need to be concerned about the learners' in general.

2.2 Teachers' Experience Vs Concerns

According to Reeves and Kazelskis (1985) the fact that changes occur in teachers has been well documented. As far as the act of teaching is concerned there

appear developmental changes in teachers and these changes are not only limited during the first months and/or years of teaching (Clark, 1995). In the continuum we can have the stages as preservice, beginning teaching and advanced inservice levels.

These stages are not separate entities, rather they are recognized as developmental, integral and complementary parts of a rational whole (Greenberg, 1983). Such existence of stages of professional development is also witnessed by Katz (1972); according to him there appear a meaningful developmental sequence in the professional growth of teachers. This sequence is characterized by fairly predictable and qualitatively distinct stages as they move from novice to expert status (Anderson and Burns, 1989).

The professional life cycle of teachers can be analyzed in different ways (Haygreaves and Fullan, 1992) and some models are suggested by authorities. The presence of a professional development model provides an important theoretical and operational description for professional teacher growth (Glassberg and Sprinthall, 1980). As noted by Kagan (1992) out of the recorded models for teacher development, one of the notable approaches, which is said to be accepted as a provisional description of teacher development (Feiman-Nemser and Floden, 1986) and which is the concern for this study is the theory of looking at teacher development in terms of developmental stages of concerns. The theory has been organized by the work of Francis Fuller (1969). Generally she looked at teachers' concerns in terms of three distinguishable aspects -self concern, task concern and pupil concern. The later works of Veenman (1984), Borich (1988) and Arends

(1994) put these concerns in a detailed manner.

Self concern - here teachers wonder and worry about their survival and adequacy. They question their adequacy of their knowledge in the subject they teach, their ability of class control i.e., they worry about things getting out of hand and students being out of control. They also become worried about their interpersonal adequacy i.e., whether their students and their supervisors really like and favourably evaluate them or not. These and other things which are directly or indirectly connected with them are parts of self-concern.

Task Concern - these are related to the instruction or the teaching situation itself. Teachers bother about adequately presenting all of the material, about the presence of too many students, lack and inappropriateness as well as the nature and quality of instructional materials, their own meagre repertoire of teaching strategies, the presence of time to cover all the topics and other aspects of instruction are included here.

Student concern - these denote teachers' bother about the social and emotional needs of students; the match between teaching strategies and materials and pupils' needs and learning. They worry upon increasing students' feelings of accomplishment, how to challenge unmotivated students etc. In general, the concern here is about the impact of one's teaching upon students and students' learning.

So the things that preoccupy teachers' thought in general can be seen in terms of the above classifications; and this view of teacher development based on their concerns appeared to be viable and has influenced many subsequent studies (Reeves and Kazelskis, 1985). But the question is, how experience is related to teachers' concerns. Of course experience is believed to affect teachers' views about different classroom events. As cited by Clark and Peterson (1986), Calderhead's (1981) comparison of beginning and experienced teachers' comments on various descriptions of common classroom incidents resulted in marked variations among them in the nature and sophistication of their interpretation and understanding of the events. Clark and Peterson (1986) attributed this variation to the nature of the knowledge structure ("Schemata") of beginning and experienced teachers i.e. experienced teachers may have a well developed knowledge structure to deal with events of classroom teaching and learning than do novice teachers. So that the schemata of experienced teachers for students may vary significantly from the schemata of novice teachers to students. Also a comparison of expert and novice teachers conducted by Medley (1981) cited in Westerman (1991) demonstrated that they differ in their thinking and decision making; their thinking and decision making in turn tend to organize and direct their behavior.

In relation to teachers' concerns, the effect of teachers gain of experience upon their concerns has remained controversial. Many including Fuller, believe that concerns proceed from self to task and to pupils as teachers get more teaching

experience. Accordingly being concerned about pupils (impact concern) reflects the highest level of teacher commitment and it tends to occur in the later years of teachers' experience (Borich, 1988). Also Fullan cited in Lee (1973) added that "the step from teacher training to full professional performance is so sudden that teachers develop primary concerns about classroom control and personal adequacy and may take several years to become skilful in the facilitation of children's learning."

The dominance of career entry by the basic theme of survival (Hargreaves and Fullan, 1992) has been emphasized by many authorities. In their study of the lives of teachers, Marti and Huberman (1993) asked teachers to reflect back on the initial preoccupations of their teaching careers. Their responses marked fear of others opinions, continual trial and error, not feeling equal to the task, feeling of intimidation by students, difficulties in maintaining order in the classroom, self preoccupation etc. as their initial preoccupations. Fuller's (1969) review of studies conducted regarding practicing and new teachers' problems and concerns revealed the presence of such concerns. In those studies it appeared that beginning teachers are concerned in general about class control, the situations in which they teach and about evaluations by their supervisors and by their pupils. For example, in the study of York (1967) conducted upon 113 first year inservice teachers, while 78% of teachers were found to be concerned with self adequacy, 22% were concerned with their pupils' learning or they were with out problems. Again another study involving 107 first year inservice teachers by York (1968) also revealed problems

related to self adequacy as the most serious ones. Fuller also reported that such consistency of findings is not only in terms of similarity of expressed concerns but it was also found regarding the absence of concerns about instructional design, methods of presenting subject matter, assessment of pupils learning, dynamics of child behavior and so on.

Other studies have also been conducted upon preservice and first year teachers which reflect the position that earlier concerns are dominated by feelings of adequacy and survival. For example, as cited by Pataniczek and Isaacson (1981), Briscoe (1972) took first year secondary teachers and requested them to examine 51 concerns and to indicate the extent of each as a concern for them at the beginning of the year and later in the year. The majority of the highest ranked concerns reflected problems of classroom management and discipline which reflect self concern. Also the work of Pataniczek (1978), cited in Pataniczek and Isaacson, come up with similar generalizations. After he took first year secondary teachers and analyzed their concerns, he found out initial concerns as high in the areas of gaining student respect, handling discipline problems and maintaining order. Coates and Thoreson's (1976) review of studies about beginners self reported anxieties put them as centered in the areas of their ability in maintaining classroom discipline, whether to be liked by students, their subject matter knowledge, what to do when mistakes occur or when they run out of material and one's personal relationship with others - faculty members, parents....

Generally for beginners the incident of facing the classroom being alone can be extremely traumatic (Grossman, 1979) and those concerns indicate the problem of transition from the preservice to the inservice world of beginning teaching (Feiman-Nemser and Buchmann, 1985 cited in Evertson, 1989).

The next things to be matters of concern are related to the teaching situation itself (Fuller, 1969). Here teachers are concerned about mastery of teaching tasks, working with too many students, time pressures, lack of instructional materials etc. For those who consider concern as progressive through stages, task concern represents the middle phase. Here it is believed that more thought is to be given for the situations of instruction; there will be an increased confidence, 'comfort', and a shift away from self-absorption; lesser preoccupation with oneself and much more concern about instructional matters (Huberman, 1993 citing Burden, 1981; Fuller, 1969). The other concern, pupil (impact) concern, is to occur at the highest level of teacher commitment. It entails concern related to recognition of the social and emotional needs of the pupils. The fact that pupil concerns belong to matured teachers can be seen from the work of Gabriel (1957) as cited by Fuller (1969). In his survey of the problems and sources of satisfaction for beginning and experienced teachers, less concern was observed for maintaining discipline and for criticism of inspectors on the part of experienced teachers. Rather they were more concerned as to the progress of their pupils and they often found satisfaction from them (students). As cited by Clark and Peterson (1986) Calderhead (1983) found that experienced teachers have a broad knowledge about children (students) in

general. Accordingly they knew which students need special help, the activities they need to engage in outside of the school etc. But inexperienced teachers found satisfaction from praise of inspectors for their work. Also in comparing students level of interest in lessons taught by teachers with varying experiences, McNeil (1974) took 19 experienced and 19 novice teachers' students. In the result pupils of experienced teachers expressed greater interest in the lesson taught than the pupils of the novices. This shows the experienced teachers' greater ability in fulfilling the needs of their students to make them interested in learning.

Generally, some authorities (Fuller, 1969; Fuller and Bown, 1975; Pye, 1989 cited in Cullingford, 1995; Capel, Leask and Turner, 1995; Anderson and Burns, 1989) conceive teachers' concerns as a three phase sequence with which "immediate concerns for survival (phase 1) will gradually develop into concerns for coping with the teaching situations and school expectations (phase 2) and hence concern about impact on pupils and the quality of one's teaching contribution (phase 3)" (Capel, Leask and Turner, 1995). Also a small scale study conducted in our country gives partial support for this sequence (Dayib and Dawit, 1998). Comparison of preservice teachers, teachers with six to ten years experience and those above fifteen years experience and the subsequent separate one way analysis of variance on each variable revealed self, task and task & student concerns at higher magnitudes for the groups respectively. But according to Eraut (1986) the progress of concerns from self to pupils doesn't mean that they occur distinctly and independently; when we say teachers are concerned about their pupils, it doesn't

mean that their task and /or self concerns have ceased to matter but it means that the former one has become more taken for granted.

On the other hand, other studies revealed a different sequence of teachers' concerns. A study by Reeves and Kazelskis (1985) upon 128 preservice and 90 experienced (62 with 1-10 years and 28 with more than 10 years) teachers demonstrated impact (student) concerns to be highest for both groups. Beyond this no difference has been observed in the self and task concerns of experienced teachers. Of course, when they compare preservice and inservice teachers on the basis of self concern, the former ones were found to be higher with this respect; but for both groups it was student concern that was at higher extent. Generally regarding their magnitude preservice teachers expressed greater level of concern for pupils, then to self and finally to their task. On the other hand experienced teachers demonstrated higher concern for pupils and moderate level of concern for both task and self concerns. Another similar result is obtained by Adams (1982). He conducted the study upon 450 elementary and 344 secondary teachers. The study was a follow up study for about six years. The final analysis of their concerns revealed that there was of course a shift in concerns from self to task as experience increases but in addition to being the highest of all concerns, impact (student) concern was also found constant or unchangeable as experience increases.

Another study by Evans and Tribble (1986) looked at the extent of seriousness of various teaching problems as they are ranked by preservice teachers.

The participants were 179 preservice teachers. They were given 18 problems to be ranked in terms of their seriousness. The later analysis of the rankings revealed that high ranking concerns (problems) are related to tasks of teaching as well as having an impact upon students' learning. So these later studies do not support earlier theoretical claims of Fuller and others which stated that the normative progression of matured teaching is dominated by self concerns first, gradually by task concerns and much later by impact concerns (Evans and Tribble, 1986).

2.3 Teachers' Sex Vs Concerns

As far as the relationship of teachers' sex and their concerns is considered there are no directly conducted investigations. But as Veenman (1984) stated perception of problems may vary in terms of certain personal variables such as gender. Beyond this, from the personal characteristics of male and female teachers suggested by authorities, it may be possible to infer the possible areas of their concerns. Huberman (1993) in his study of the professional lives of teachers came up with the conclusion that male teachers in general are more attached to transmission of content knowledge whereas female teachers emphasize relationships with pupils.

Also Dunkin (1986) mentioned some studies as evidence for certain differences between the classroom behaviors of male and female teachers. In those studies the classrooms of male teachers were found to be more centrally organized and teacher dominated (Adams and Biddle, 1970 cited in Dunkin, 1986) and the

teachers were more direct and authoritarian (Griffin, 1972 cited in Dunkin, 1986) than females. In contrast female teachers are "generally warmer and more tolerant of misbehavior" than males (Good et al., 1972 cited in Dunkin 1986), their classes are more relaxed and discussion oriented but male teachers are more oriented to mastery of content. Beyond these Good et al., 1972, cited in Dunkin (1986) found that "students did more initiating, give more incorrect answers, seemed willing to guess when unsure of answers in the presence of female teachers." In addition while female teachers were found to provide praises frequently following correct responses and less likely to give comments on wrong responses, male teachers focused on giving comments on the "processes by which the responses are produced" and less likely provide feedback to correct responses (Good et al. 1972 cited in Dunkin, 1986). Also research reports by Evans and Tribble (1986) on teachers' patterns of motivation demonstrates female teachers' greater consideration of interpersonal relationships and individual differences than males. For example as cited by them in the work of Masling and Stern (1963) a stronger pattern of nurturance and dependence in their interactions with others had been revealed by female teachers. Again Pearson and Goff (1980) cited in Evans and Tribble (1986) reported that the "incentive value of positive interpersonal relationships is especially high for females who are generally characterized by strong affiliation motivation." All these findings seem to show the female teachers' tendency to keep the emotional needs of their students than their male counterparts. But how far these variations are to be reflected in their concerns is a question not directly treated by those studies. In other words based on the classroom characteristics of

male and female teachers given above can we say that males are more task concerned and females are pupil concerned? So how far their concerns be reflections of the suggested classroom behaviors will be investigated by the study.

2.4 Teachers' Qualification Vs Concerns

Similar to their sex, teachers' qualification and its relation with their concerns has not been treated adequately. But some studies of concerns included subjects from different school levels and report results from which inferences can be made about concerns for teachers of different qualifications. First of all it is believed that the teachers level of training tend to affect their classroom behavior (Clarridge, 1990 cited in Westerman, 1991). For example, in Dewalt and Ball's (1987) comparative study of well prepared and unprepared teachers' competencies in creating affective classroom climate and treating individual differences, they found the former ones at a better stand than the later ones. The same result was also found in the areas of pupil relations from the study of Lupone (1961) as cited by Dewalt and Ball, 1987. He found that regularly certified teachers scored higher than provisionally certified ones in the areas of pupil relations.

On the other hand, Adams' (1982) analysis of variation in the teaching style of elementary and secondary school teachers revealed a more child centered style of teaching by elementary teachers and a more subject matter approach by secondary teachers. He also found that elementary teachers appear to influence the pupils behavior in more positive way as they gained experience. While secondary

teachers demonstrated a tendency of increment in positively influencing pupil behavior, the increase was not significant.

Additionally Chissom's (1987) analysis of the interactive behavior of elementary and high school teachers revealed the elementary school teachers' tendency to have shorter and more frequent exchanges than did high school teachers. This in turn seem to suggest the elementary teachers' emphasis to have a more positive understanding of their pupils. Also Huberman (1993), after studying 160 middle school (lower secondary) and secondary school teachers, found that middle school teachers are attracted by the opportunity of having social impact, while high school teachers do have more desire to transmit their knowledge and focus on their subject matter.

Having such points, we can have two issues i.e. either adequate preparation results in more emphasis on affective classroom climate implying highly qualified teachers' main focus on pupils concern or elementary teachers' main concern for pupils and secondary teachers' concern for their task. So from the stand point of our teachers' mode of training, how far their qualification is attributable for their concerns is to be investigated in this study.

CHAPTER THREE

DESIGN OF THE STUDY

This section contains the various methodological aspects in the study including the variables, subjects, sampling procedure, instrument, procedures of data gathering and data analysis.

3.1 Variables

3.1.1 Independent Variables

Out of various characteristics and qualities used to describe teachers, this study included sex, level of education (qualification) and years of teaching experience. In this study sex was coded as:

- 0 for males and
- 1 for females

Qualification was coded with two levels as

- 0 for T.T.I. and
- 1 for Diploma

and finally teaching experience was coded with three levels as

- 0 for less than or equal to 5 years experience (Low experienced)
- 1 for 6-14 years experience (Moderately experienced)
- 2 for greater than or equal to 15 years experience (Highly experienced)

The classification of the teachers' years of experience has been made in various ways by different researchers. For example a study by Kyriacov and Sutcliffe (1978) cited by Hagos (1998) used one to four years, five to nine years and ten and more years classification. Evans et al. (1994) used one to five years, six to ten years and more than ten years classifications; Westerman (1991) used one to five years and more than five years classification; Huberman (1993) used five to ten, eleven to twenty, twenty one to thirty and thirty to forty years classifications. So, in this study, based on the emphasis that such studies give to the first five years of teaching the writer directly took the first classification to be five years and below experience of teaching. And for the sake of compromising various classifications fifteen years and above are taken as part of high experience category. Then the middle years, six to fourteen are considered as medium experience years.

3.1.2 Dependent Variables

In this study three dependent variables were considered: self concern, task concern and student concern. Measures of these variables were the scores from teachers' concern checklist prepared to represent all the three.

3.2 Subjects of the Study

The study was conducted using elementary school (grades 1-8) inservice teachers with T.T.I and Diploma qualifications in Addis Ababa region. For the sake of convenience in data analysis, an equal number of sample size was maintained in terms of the teachers' sex, qualification and level of experience.

3.3 Sampling Technique

The method of sampling used was mainly purposive. Beyond the need for the subjects to be in the proper cluster of experience, sex and qualification, there were some other attributes which had to be controlled properly to get the proper subjects. These were whether there was variation in the qualification of teachers while they were employed first and at the present (i.e. a teacher's initial qualification might be T.T.I. or other and presently he/she may be a diploma holder). Also there was a need to detect those who were attending further education and reached at a level that might have affected their present qualification. To deal with these situations the writer initially decided to leave out those whose initial and later qualifications vary from the

target population. Also those who were attending further education through extension and reached above a year and half for diploma program and above three years for degree program as well as those attending summer programs and reached above three years by studying fields related to teaching were decided to be excluded from the study.

Since it was impossible to decide on these attributes by depending solely on school documents, it was imperative to distribute the questionnaire to get information regarding the attributes. This necessitated to include a large number of subjects in order to select the most appropriate ones. The problem was especially serious among those teachers with diploma qualifications. Based on the availability of teachers in terms of their sex, qualification and experience, 25 schools (11%), out of 224 elementary schools in the region were chosen. To this end school personnel data collected in 1991 E.C. by the Region's Education Bureau was observed. From each school all the diploma holders (due to high susceptibility to be dropped for discrepancy in initial and later qualification) and T.T.I. teachers with less than or equal to 5 years experience (due to low availability) were included and only one third of T.T.I. teachers with more than six years experience were taken randomly from school lists on the expectation of high availability. This procedure resulted in 514 teachers with the following distribution.

Table 3.1: The Total Distribution of Subjects Included in the Study

Experience	T.T.I.		Diploma		Total
	Male	Female	Male	Female	
≤ 5 years	22	19	64	49	154
6-14 years	57	47	42	38	184
≥15 years	49	55	39	33	176
Total	128	121	145	120	514

It was from this population that the usable samples were taken.

After making possible substitutions for those who have left a given school during the new year (1992 E.C.) a total of 503 questionnaires were distributed through directors and/or vice directors and 425 questionnaires were successfully collected. After screening those whose initial and later qualifications showed variation as well as those who attended further education it was found that a total of 249 subjects were eligible for the study. The distribution of these subjects was as follows.

Table 3.2: The Distribution of Subjects Identified as Proper for the Study

Experience	T.T.I.		Diploma		Total
	Male	Female	Male	Female	
≤ 5 years	14	12	36	24	86
6-14 years	30	23	16	14	83
≥15 years	22	33	12	13	80
Total	66	68	64	51	249

Since this was taken as the target population for the study a random sample of 10 was taken from each cell after a sequence of numbers were given for subjects belonging to each cell. As a result 120 subjects were involved in the final study. This restriction to equal number in the cells was made because unless equal number is maintained, the various sum of squares and error matrices will not sum to the total sum of squares and cross products matrix (Morrison, 1990). Moreover, from the point of availability of usable sample subjects the number taken is believed to be adequate.

3.4 Instrument

A questionnaire was used to obtain data for this study. The items of the questionnaire were extracted from teachers' concern checklist developed by Borich and Fuller (Borich, 1988) as well as from items used in other studies such as Reeves

and Kazelskis (1985). In addition to these some items were added by the writer which he believed would describe different aspects of teachers' concerns. The 52 prepared statements were assigned to 10 judges (all first and second year graduate students of Measurement and Evaluation) to sort them out in terms of how proper the descriptions are for self, task and student concerns of teachers.

After this, while those statements with one disagreement among judges were maintained as they were, those statements with two or three disagreements among judges were included in the final questionnaire with some modifications. So a total of 44 statements (14 self, 14 task and 16 student concern statements) were selected. Three undergraduate 4th year students (Institute of Language Studies students) were given the statements to check the clarity and in terms of teachers' level of comprehension.

The questionnaire ^{had} two parts. The first part required background information about the teachers' qualification, sex, years of teaching experience, whether he/she is attending further education etc. The second part contained the items on the various concerns to be judged on a five point scale ranging from 'extremely concerned' represented by a score of '5' to 'not concerned' designated by a score of '1'. In order to enable respondents to have a good understanding of their task the direction has included a request for teachers to read the statement given and ask themselves 'when I think about my teaching am I concerned about this?' as it is usual in teachers' concern

checklists. Then they were asked to indicate the level of their concern by circling the number they chose. After this a pilot test was conducted mainly aimed to see the reliability of the questionnaire. Prior studies employing teachers' concerns checklist had taken only some 15 items constituting 5 self concern, 5 task concern and 5 student concern items. The reliability of the questionnaire was thus determined based on only those 15 items. For example as cited by Reeves and Kazelskis (1985) George (1978) has found reliabilities of 0.80, 0.67 and 0.83 alpha coefficients for self, task and student concern scales respectively based on samples from preservice teachers, inservice teachers and principals. Also he has found test-retest reliability coefficients of 0.79 (self), 0.71 (task) and 0.77 (student) based on a sample of elementary teachers.

In this study the pilot test was conducted based on inservice teachers. The sample subjects were taken purposely to represent each cluster of experience, sex and qualification. For this purpose five schools were taken after the teachers' experience, qualification and sex distribution had been looked at from the Region's Education Bureau. A further consultation was made with school directors about the background (whether they are attending further education and whether their initial and present qualification varies) of teachers. Since the questionnaire was also designed to get such information there was no problem for those teachers that directors did not have enough information. With this method it was possible to get the following distribution of subjects for the test.

Table 3.3: Distribution of Sample Subjects for the Pilot Test

Experience	T.T.I.		Diploma		Total
	Male	Female	Male	Female	
≤ 5 years	2	2	2	2	8
6-14 years	3	3	2	2	10
≥ 15 years	2	2	1	1	6
Total	7	7	5	5	24

The methods of internal consistency (Spearman Brown and Cronbach Alpha; Ebel, 1991) were used to determine the reliabilities of self, task and student concern scales as well as for the combination. But since equality in the number of items was believed to be important for the sake of comparison of the three concerns in the later analysis, there come a need to randomly avoid two items from student concern. So the reliability for student concern scale was calculated after randomly eliminating two items.

As a result the following coefficients have been obtained.

<u>Scale</u>	<u>Spearman-Brown</u>	<u>Coefficient Alpha</u>
Self-concern	0.87	0.87
Task-concern	0.88	0.88
Student-concern	0.90	0.89
Combination (self + task + student)	0.96	0.96

After the reliability was seen to be adequate, the questionnaire was prepared to be distributed to the sampled subjects. Here the order of the three concerns was made to have a sort of a pattern, identifiable only to the writer, in order to make the later organization of data simple. This was made by placing each of the student, task and self concern items at every third position i.e. items 1,4,7... were student concern items, items 2,5,8... were task concern items and items 3,6,9... were self concern items. Since descriptions were not made on self, task or student concerns this patterning was not identifiable for the teachers to affect the result.

3.5 Data Gathering Procedure

The questionnaires were distributed to sample subjects with the help of directors and/or vice directors. Together with the questionnaires a list of teachers' to complete it was given and the directors/vice directors were requested to mark beside the names while giving the questionnaire.

The subjects were given four to seven days to complete the questionnaire. This was done because the time that the data was to be collected was a time at which final examination was approaching so they were required to complete it at home without any pressure by giving it enough thought.

3.6 Data Analysis

The main statistical tool selected for analysis in this study was multivariate analysis of variance (MANOVA) and a computer analysis was made by using SPSS/PC+. MANOVA was chosen due to the existence of more than one dependent variables (self concern, task concern and student concern). According to Norušis (1985) MANOVA is a multivariate version of analysis of variance employed whenever there are more than one dependent variables.

For using the analysis first there should be tests as to whether the data fulfils certain assumptions of MANOVA or not. If there is deviation from the assumptions there will be a need of some sort of transformation. These assumptions are:

- i) the dependent variables should have a multivariate normal distribution
- ii) there should be homogeneity of variance for the various treatment groups.

Regarding the first assumption Norušis suggested that “if variables have a multivariate normal distribution, each one taken individually must be normally distributed”. So to assess the reasonableness of the assumption of normality stem and leaf plots and normal plots were observed for each dependent variable. At the same time to look at homogeneity of cell variances Bartlett's test of variance homogeneity was employed (Broota, 1989).

After the assumptions of normality and homogeneity of variances were studied, the actual computation of MANOVA took place.

Since there were three factors (sex, qualification and experience) as independent variables and three dependent variables (self, task, student concerns) the design was a multivariate factorial design. Due to this there were three main effects (sex, qualification and experience) and four interaction effects (sex. X qualification. X experience, sex X qualification, sex x experience and qualification x experience).

In addition to tests for interaction and main effects single group multivariate tests were conducted in order to see whether the means on the three dependent variables are significantly different from the value of moderate concern, 42, which is taken as a standard value (from the ‘Teachers’ concerns checklist ‘3’ represented a

value for 'moderate concern' so 3×14 items = 42 was made a standard value for each of the scales; any mean value significantly above 42 is taken as an indicator of higher level of concern). To do this the 'normative value' of 42 was subtracted from each of the cases (subjects) for each of the three dependent variables. This was because the SPSS MANOVA tests the hypothesis that a set of means is equal to zero. As a result a set of new variables designated as self 1, task1 and student 1 are formed. This analysis was made for the separate groups of sex (males, females), qualification (T.T.I.s, Diplomas) and experience (≤ 5 years, 6-14 years and ≥ 15 years) i.e., a total of seven tests were conducted.

Together with each of the multivariate tests, for those which had a significant 'F' ratio, univariate tests were observed to identify the variable(s) which contributed to the significance of the multivariate 'F'.

CHAPTER FOUR

RESULTS OF THE STUDY

After the data had been collected and organized in accordance with the three dependent variables of Self concern, Task concern, Student concern, a computer analysis was run using SPSS/PC+. In this part of the study the results of the analysis are presented.

First to have a general understanding of what the distribution of the data look like, means and standard deviations are given below in terms of the various independent variables.

Table: 4.1 Means and Standard Deviations of Subjects on the Dependent Variables

Levels of Experience	Dependent Variables	T.T.I		Diploma	
		Male	Female	Male	Female
≤ 5 years	- Self concern	54.7(4.5959)*	55.3 (4.0838)	55.7 (4.9899)	58.4 (4.2999)
	- Task concern	50.7(4.0014)	50.6 (5.0596)	51.8 (5.6725)	54.7 (4.0565)
	- Student concern	49.8(3.2249)	52.1 (6.4713)	49.3 (7.9729)	54.6 (4.6952)
6-14 years	- Self concern	48.3 (7.1809)	51.8 (5.5337)	48.1 (8.3991)	52.8 (5.2873)
	- Task concern	56.1 (4.5814)	59.3 (3.8020)	56.2 (5.2026)	56.4 (4.0056)
	- Student concern	51.0(6.5149)	55.3 (4.9227)	51.7 (6.1110)	56.7 (4.0838)
≥ 15 years	- Self concern	48.4 (5.8157)	49.7 (6.3078)	49.2 (6.5115)	52.6 (4.8579)
	- Task concern	56.5 (3.9511)	56.8 (4.9621)	56.2 (7.6999)	55.8 (5.9963)
	- Student concern	53.4 (4.8579)	58.7 (8.1110)	55.7 (6.4987)	58.1 (4.1218)

* Those in brackets are standard deviations.

To make more meaningful comparisons on the dependent variables, combined statistics are given in Table 4.2 below.

Table : 4.2 Combined Means and Standard Deviations for the Categories of the Factors (Independent Variables)

Factors	Self Concern	Task Concern	Student Concern
• Sex			
Male	50.73 (6.9009)*	54.58 (5.6457)	51.82 (6.1932)
Female	53.43 (5.6339)	55.60 (5.2310)	55.92 (5.8027)
• Qualification			
T.T.I.	51.37 (6.1340)	55.00 (5.3457)	53.38 (6.3728)
Diploma	52.80 (6.6633)	55.18 (5.5829)	54.35 (6.2838)
• Experience			
≤ 5 years	56.03 (4.5600)	51.95 (4.8619)	51.45 (6.0296)
6-14 years	50.25 (6.7927)	57.00 (4.4664)	53.68 (5.8062)
≥ 15 years	49.98 (5.8986)	56.33 (.6039)	56.48 (6.2306)

* Those in brackets are standard deviations.

From the above table we can see that there are certain observed numerical differences within each category of sex, qualification and experience with respect to

the dependent variables. Female teachers appeared to have consistently greater mean scores on all of the dependent variables than males. Likewise from the levels of qualification, the diplomas scored higher mean values on each dependent variable than the T.T.I.s. However, in relation to the mean scores of the different levels of experience, low experienced teachers scored higher mean value on self concern, while moderate and highly experienced teachers got higher scores on task and student concerns respectively. Moreover all groups scored in each category more than the normative mean.

After a general look at the mean distribution and variability of the data, tests for multivariate normality and homogeneity of variance has to be done if one is to proceed to multivariate analysis. To insure multivariate normality in the data, one can make either an assessment of the stem and leaf displays which provide a rough idea about the normality of the distribution for a given variable, or use normal plots which are especially designed for assessing normality. These are to be made for each of the dependent variables. If all the variables appear to be normally distributed, it is reasonable to assume multivariate normality (Norušis, 1985).

In using normal plots (Appendix C) the numbers represent the cases that fall in the same position on the plot (Norušis, 1985). If the scores are from a normal distribution, the plots form approximately a straight line (Bock, 1975). (See Appendix

C for stem and leaf displays and Normal plots for self, task and student concern scores).

From the figures, especially from the Normal Plots of the three variables, a major feature is not seen that may lead to violation of the normality assumption. So since all the variables are normally distributed it is safe to assume multivariate normality.

Other than tests of normality, Bartlett's test (Broota, 1989) was employed to look at the variance homogeneity among the cells for each dependent variable.

Table: 4.3 Summary of Bartlett's Test of Variance Homogeneity Within Cells for Self, Task and Student Concern

Scores

Variable	K	N	$\frac{12}{\sum_{k=1} S_k^2}$	$\frac{12}{\sum \log S_k^2}$	$\log \bar{S}^2$	C	X^2 (chi-square)	p
Self concern	12	10	401.489	17.831	1.524	1.04	9.106	>0.05
Task concern	12	10	304.279	16.368	1.404	1.04	9.565	>0.05
Student concern	12	10	407.199	17.638	1.531	1.04	14.626	>0.05

Note:

$$X^2 (0.05,11) = 19.675$$

* all the logarithms are functioned at the base of 10.

From Table 4.3 since the observed values of X^2 are less than the critical value ($X^2_{(0.05, 11)} = 19.675$) the null hypothesis of equal variances will be retained and it is possible to conclude that the cell variances are homogeneous for each of the three dependent variables. As a result no transformation is needed for the data because nothing is violated in relation to normality and variance homogeneity assumptions.

4.1 Results of Multivariate Tests of Effects

An overall MANOVA results are reported employing the test of Wilks' lambda (Tatsuoka, 1971; Harris, 1975; Morrison, 1990) in the table below.

Table: 4.4 Summary of Multivariate Test Results

Source	WilksValue	Hyp. DF	Error DF	F Ratio	Sign. of F
Sex (S)	.84854	3	106	6.30698	.000
Qualification (Q)	.97671	3	106	<1	ns
Experience (E)	.47496	6	212	15.93561	.000
S X E	.98302	6	212	<1	ns
S X Q	.99017	3	106	<1	ns
Q X E	.94930	6	212	<1	ns
S X Q X E	.96638	6	212	<1	ns

$F_{0.005}(3, 106) = 2.55$; $F_{0.005}(6, 212) = 3.09$;

N.B. The greatest characteristic root parameters for Sex, Qualification and Sex X qualification are $S = 1$, $M = \frac{1}{2}$ and $N = 52$. For the rest $S = 2$, $M = 0$ and $N = 52$.

HYP.DF = $2M + 2$ when $S = 1$
= $4M + 6$ when $S = 2$
Error DF = $2N + 2$ when $S = 1$
= $4N + 4$ when $S = 2$

As we can see from Table 4.4 the interaction effects as well as the effect of qualification appeared non-significant. But a highly significant main effect is observed for both sex and experience indicating the presence of differences between males and females as well as among teachers at different levels of experience with respect to their concerns. To know which concern category or categories contributed to the observed significant difference under sex and experience, univariate tests were made. So the table below presents univariate F-tests for the effects of sex and experience.

Table: 4.5 Univariate F-Tests for the Effects of Sex and Experience

Main Effect	Variable	DF	Hyp.SS	Error SS	Hyp.MS	Error.MS	F	Sig.of F.
Sex	. Self concern	(1,108)	218.70	3613.40	218.70	33.457	6.537	.012
	. Task concern	(1,108)	31.01	2738.50	31.01	25.356	1.223	.271
	. Student concern	(1,108)	504.30	3664.80	504.30	33.933	14.861	.000
Experience	. Self concern	(2,108)	933.717	3613.40	466.858	33.457	13.954	.000
	. Task concern	(2,108)	601.317	2738.50	300.658	25.356	11.857	.000
	. Student concern	(2,108)	507.217	3664.80	253.608	33.933	7.474	.001

$$F_{0.005}(1,108) = 3.94; F_{0.005}(1, 108) = 8.24; F_{0.005}(2,108) = 5.59$$

From table 4.5 we can see that male and female teachers differ in their self and student concerns but not in their task concerns. So having a mean score of 53.43 for self and 55.92 for student concerns (Table 4.2) female teachers appear to be highly

concerned about these aspects than their male counterparts who scored a mean of 50.73 for self concern and a mean of 51.82 for student concern.

Regarding the effects of experience, teachers at the different categories differ with respect to all the three concerns. But since the levels of experience are three, a post hoc comparison was made to identify the significance among pairs of levels. To do this a Tukey HSD (Hays, 1994) test was done upon the univariate ANOVA results. The pairwise differences on the dependent variables are presented in the following tables.

Table: 4.6 Pairwise Differences of Means on Self Concern for the Three Groups of Experience

		Groups		
		3	2	1
		49.975	50.250	56.025
3	49.975	—	.275	6.050*
2	50.250		—	5.775*
1	56.025			—

N.B.:- * Significant differences. Groups: 1 = ≤ 5 years experienced teachers;
 2 = 6 -14 years experienced teachers; 3 = ≥ 15 years experienced teachers.
 Tukey HSD = 3.86

Table: 4.7 Pairwise Differences of Means on Task Concern for the Three Groups of Experience

		Groups		
		1	3	2
		51.950	56.325	57.000
1	51.950	—	4.375*	5.050*
3	56.325		—	0.675
2	57.000			—

Tukey HSD = 3.357

Table: 4.8 Pairwise Differences of Means on Student Concern for the Three Groups of Experience

		Groups		
		1	2	3
		51.450	53.675	56.475
1	51.450	—	2.225	5.025*
2	53.675		—	2.800
3	56.475			—

Tukey HSD = 3.88

From the Tukey HSD results low experienced teachers appeared to have a statistically greater level of self concern than the other two groups. The later groups of moderate and high experiences do not differ in their self concerns. Regarding task concern both moderate and highly experienced teachers demonstrated statistically significant differences from low experienced teachers, but no significant difference is observed between them. So we can conclude that both medium and highly experienced teachers have higher level of task concern than low experienced teachers. Finally, the only pair that shows difference regarding student concern is the one between low experienced and highly experienced teachers. Here the moderate experienced teachers showed a significant difference neither with low experienced nor with highly experienced teachers.

4.2 Results of Single Group Multivariate Tests

To investigate on which concern(s) the teachers expressed significantly more than moderate level of concern, another sort of multivariate test was conducted with respect to the separate levels of sex, qualification and experience.

Table:4.9 Results of Single Group Multivariate Tests Intermns of Sex, Qualification and Experience Groupings

Factor	Group	Wilks Value	Hyp.DF	Error DF	F	Sign. of F.
Sex	Male	.14673	3	57	110.48861	.000
	Female	.08696	3	57	199.49391	.000
Qualification	TTI	.12394	3	57	134.30	.000
	Diploma	.11669	3	57	143.81844	.000
Experience	≤ 5 years	.09143	3	37	122.56	.000
	6-14 years	.07942	3	37	142.9524	.000
	≥ 15 years	.10283	3	37	107.606	.000

$$F_{0.005}(3,57) = 4.78; F_{0.005}(3,37) = 5.12$$

N.B. HYP.DF = Number of dependent variables (P)

$$\text{Error DF} = n-p$$

From Table 4.12 we can see that whenever teachers are seen separately as part of different groups and their level of concern(s) is compared to what can be taken as a normative value, there appeared significant difference for all groups. To see which category/categories of concern contribute to the differences further univariate tests were conducted.

Table:4.10 Univariate F-Tests for Single Group Multivariate Tests

Group	Variable	DF	Hyp.SS (Hyp.E)	Error.SS	Hyp.MS	Error.MS	F	P
Male	Self concern	(1,59)	4576.267	2809.733	4576.267	47.623	96.094	.000
	Task concern	(1,59)	9500.417	1880.583	9500.417	31.874	298.059	.000
	Student concern	(1,59)	5782.017	2262.983	5782.017	38.356	150.747	.000
Female	Self concern	(1,59)	7843.2667	1872.7333	7843.2667	31.7412	247.10	.000
	Task concern	(1,59)	11097.6000	1614.4000	11097.6000	27.3627	405.5738	.000
	Student concern	(1,59)	11620.4167	1986.5833	11620.4167	33.6709	345.1175	.000
TTI	Self concern	(1,59)	5264.067	2219.933	5264.067	37.626	139.905	.000
	Task concern	(1,59)	10140.000	1686.000	10140.000	28.576	354.839	.000
	Student concern	(1,59)	7774.817	2396.00	7774.817	40.613	191.435	.000
Diploma	Self concern	(1,59)	6998.40	2619.60	6998.40	44.400	157.622	.000
	Task concern	(1,59)	10428.02	1838.98	10428.02	31.169	334.561	.000
	Student concern	(1,59)	9151.35	2329.65	9151.35	39.486	231.764	.000
≤ 5 Years Experience	Self concern	(1,39)	7868.025	810.975	7868.025	20.794	378.375	.000
	Task concern	(1,39)	3960.100	921.900	3960.100	23.638	167.582	.000
	Student concern	(1,39)	3572.100	1417.900	3572.100	36.356	98.252	.000
6-14 Years Experience	Self concern	(1,39)	2722.500	1799.500	2722.500	46.141	59.004	.000
	Task concern	(1,39)	9000.000	778.000	9000.000	19.949	451.157	.000
	Student concern	(1,39)	5452.255	1314.775	5452.255	33.712	161.729	.000
≥ 15 Years Experience	Self concern	(1,39)	2544.025	1356.975	2544.025	34.794	73.116	.000
	Task concern	(1,39)	8208.225	1224.775	8208.225	31.404	261.371	.000
	Student concern	(1,39)	8381.025	1513.975	8381.025	38.819	215.895	.000

$F_{0.005}(1, 59) = 8.51$; $F_{0.005}(1, 39) = 8.97$

So from the univariate test results and observation of the combined mean values given on Table 4.2 we can conclude that the teachers in general demonstrate significantly more than moderate level of concern in all the three aspects of concerns.

CHPATER FIVE

DISCUSSION

At the very start of this study certain basic questions were raised depending on the controversies and views of authorities regarding teachers' concerns. There appeared clear arguments as to the relationship of teachers' concerns with the progress in their experience. In addition to this the writer wanted to deal with the teachers' sex and qualification as they relate to their concerns. This is based on the assumption that teachers' characteristics defined by some studies in terms of their sex and qualification might have contributed to the pattern of their concerns. So the present study will discuss these ideas on the bases of the results obtained.

In the first place as shown by Table 4.4 it was found that there was no two or three way interaction among the independent variables as they relate to teachers' concerns. This implies that the effect of one or two factors has no bearing on the effects of the other factor or factors. This absence of interactions also denotes the entire (if it exists) effect on the dependent variable(s) is to be explained by the separate factors (independent variables). Since pre existing studies in relation to teachers' concerns merely took experience as a factor, no suggestions are made about differential effects of various factors interacting to each other.

5.1 Teachers' Experience Vs Concerns

A good deal of research has been made concerning the relationship of teachers' experience and their concerns. At the very beginning teachers' concerns were seen as developmentally occurring aspects. Especially the early works of Francis Fuller (1969) and her predecessors (York, 1967; Gabriel, 1957 cited in Fuller, 1969) have paved the way for later consideration of the issue. However, all later suggestions are not in support of this earlier view; even some considered teaching as a flat career providing no opportunities for change (Buchmann, 1993).

In the present study the multivariate [$F(6,212) = 15.94, p < 0.005$] and univariate [$F_{\text{self}}(2,108) = 13.95, p < 0.005$; $F_{\text{task}}(2,108) = 11.86, p < 0.005$ and $F_{\text{stud.}}(2,108) = 7.47, p < 0.005$] tests show significant differences among the levels of experience with respect to the three concerns. When the Tukey HSD procedure is employed, the pair of groups demonstrating significant differences has been identified. Based on this it can be concluded that less experienced teachers do have significantly greater level of self concern ($\bar{X}_{\text{self}} = 56.03$) than both moderate ($\bar{X}_{\text{self}} = 50.25$) and highly experienced ($\bar{X}_{\text{self}} = 49.98$) teachers. To this end many authorities (Barnes, 1986; Huberman, 1993; Cullingford, 1995) have provided the results of their observations showing that lesser experienced teachers have greater level of self or survival concerns. This survival preoccupation is so because the early years of teaching are characterized by

"uncertainty, difficulties in maintaining order, oscillation between indulgence and severity etc." (Huberman, 1993). These early incidents and pre-occupations are caused due to lack of experience (Barnes, 1986), due to fear of confronting so many people looking at them as well as due to fear of the reactions of the students they teach (Cullingford, 1995). Also they dislike colleagues watching them while teaching. So all these things contribute for beginners to be preoccupied more about themselves than medium and highly experienced teachers do. In addition according to Huberman (1993). "their working memory is especially devoted for monitoring their own behavior while they are trying to imitate or invent workable procedures. Until some standardized procedures for classroom management and instruction are routinized and fairly automated, their attention may actually focus on their own behavior rather than on their pupils". Therefore, the result of this study in relation to the presence of greater level of self concern for less experienced than medium and highly experienced teachers is in line with the suggestions of the authorities.

Regarding the concerns of moderately experienced teachers, in this study they are found to have a greater level of task concern ($\bar{X}_{\text{task}} = 57$) than low experienced teachers ($\bar{X}_{\text{task}} = 51.95$) but the pairwise difference between medium experienced and highly experienced teachers ($\bar{X}_{\text{task}} = 56.33$) was statistically non significant (Table 4.9). This gives partial support to the view that concerns have phases to occur proceeding from survival first to teaching situations (Fuller and Bown, 1975).

However, in this study the moderately experienced (with $\bar{X}_{\text{stud}} = 53.68$) show non-significant difference either to low experienced teachers ($\bar{X}_{\text{stud.}} = 51.45$) or highly experienced ($\bar{X}_{\text{stud.}} = 56.48$) teachers with respect to concern about students. One reason here may be due to the wide range of years that they encompass. Due to this those of the later years of the category might be nearer to have higher level of student concern while those at the early years might have lower level. So, when these teachers' level of student concern is averaged it might be positioned at the middle between low and highly experienced teachers failing to show significant difference when compared separately to the two groups.

As far as highly experienced teachers are concerned, they are found to have a significantly greater level of student concern ($\bar{X}_{\text{stud.}} = 56.48$) when compared especially to low experienced teachers ($\bar{X}_{\text{stud.}} = 51.45$). But their greater score over moderately experienced teachers ($\bar{X}_{\text{stud.}} = 53.68$) is not statistically significant (table 4.11). Regarding task concern they depict significantly higher level ($\bar{X}_{\text{task}} = 56.33$) than low experienced teachers, while compared to moderately experienced teachers ($\bar{X}_{\text{task}} = 57$) their difference is not statistically significant. These show that the results of this study are in support of the view of some authorities which imply that concern about students is characteristic of matured teaching and high level of experience (Fuller, 1969; Gabriel, 1957 cited in Fuller 1969). According to Good and Brophy (1987), it is after personal and teaching concerns that teachers will be able to devote their attention to

the effects of their teaching (i.e., student learning). This is because experienced teachers have broad knowledge about students in such a way that they know those who need special help as well as the activities they need to engage in etc. (Calderhead, 1983 cited in Clark and Peterson, 1986). Moreover, the absence of significant difference between moderate and highly experienced teachers with respect to task concern (Table 4.7) shows the presence of some sort of overlap between the two. This may be attributed to the greater range of years used in the classification which might have compromised the possible mean differences as discussed previously.

Generally while it is clearly observed that self concern is revealed at a higher level by low experienced teachers than the other categories, task and student concern were observed at higher magnitude for both moderate and highly experienced teachers than for low experienced teachers. But the difference of low experienced and moderately experienced teachers regarding student concern is not statistically significant.

5.2 Teachers' Sex Vs Concerns

The question raised regarding the relationship of teachers' sex and their concerns was based on some characteristics of male and female teachers as suggested by those who tried to study it either through observation or some other techniques. Based on those characteristics about the classroom behaviors of male and female

teachers the writer of this paper tried to make some inferences about their concerns. When the results of this study are seen the multivariate test indicated the presence of an overall significant difference between the sex groups regarding their concerns [$F(3,106) = 6.31, p < 0.005$]. In the univariate test the presence of this difference was seen for student concern [$F(1,108) = 14.86, p < 0.0001$] and for self concern [$F(1,108) = 6.54, p < 0.05$]. In support of the assumption made about female teachers there appeared greater level of student concern for female teachers ($\bar{X}=55.92$) than for male teachers ($\bar{X}=51.82$). Therefore, it is possible to see how the tendency of female teachers to be much more interactive with pupils than male teachers (Goff, 1980; cited in Evans and Tribble, 1986), and how their emotional sensitivity, empathy (Almaz and Barbara, 1990), as well as their being "warmer" and more tolerant of misbehavior (Dunkin, 1986) etc. are reflected in their high level of concern about students. Also it is noted that females enter into the teaching profession because of their fond of working with children (Freeman, 1987). So, their greater level of student concern over male teachers may also be taken as a reflection of their motherhood behavior.

The results also depict variation between male and female teachers in terms of self concern. Female teachers demonstrated higher self concern ($\bar{X}=53.43$) than their male counterparts ($\bar{X}=50.73$). Although no suggestions are made regarding the tendency of female teachers to have higher self concern, there are some views that may direct us to this line of conclusion. For example, Huberman and Marti's (1993) request

of teachers to reflect back their initial preoccupations revealed especially the fear of other people's opinion as more prevalent among women than for men teachers. Also their greater level of self concern may be reasoned out due to the disciplinary problems of students which might be very serious upon female teachers due to their sex. In his study of teachers' sex and their stresses and coping strategies, Hagos (1998) concluded that pupil misbehavior is more stressful to female teachers than to male teachers. In addition to this Almaz and Barbara (1990) noted that students sometimes test female teachers to find out whether they do have the strength to manage their classes successfully and female teachers are more susceptible to be looked down especially by older students. So, from such respects the higher level of self concern observed on female teachers can be logically accepted.

On the other hand, task concern failed to show significant difference between male ($\bar{X} = 54.58$) and female teachers ($\bar{X} = 55.6$). In contrast to the assumption that males might show higher level of task concern than female teachers because of their greater sort of attachment to transmission of content knowledge (Huberman, 1993), this study depicted the absence of such significant difference. This may be attributed to the fact that male and female teachers acquired their skills for the task of teaching in a similar trend with no sex variation. Both are expected to teach the subject well, to skilfully prepare plans, to employ various teaching methods etc. After all, helping teachers acquire these skills is the very aim of any teacher preparation program. So

being equally involved in preservice training as well as in real classroom activities the concern of one group to various tasks may also be a concern for the other.

5.3 Teachers' Qualification Vs Concerns

With regard to the relationship of teachers' concerns and their qualifications there were no studies conducted in terms of their direct relationship. However, it was suggested that adequate preparation enables teachers to become more effective and show better treatment to individual differences (Dewalt and Ball, 1987). Consequently, it was assumed that well trained teachers would be in a better position to depict concern for students which is taken as a manifestation of better teaching (Fuller and Bown, 1975) and that should be at the centre of every teacher's concern (Cullingford, 1995).

From the point of acquiring a repertoire of skills which are to be employed in classroom instruction, adequate preparation is a necessity for teachers. Having the mastery of such skills will have a great deal contribution for proper solution of problems which may arise during the instructional process. The investigation of Clarridge (1990), cited in Westerman (1991), demonstrated that differences in training can be attributed for differences in classroom performance. Her comparison of teachers with no pedagogical training to those designated as expert teachers revealed the former's deficiency of abilities which are important to effective teaching. Also

Huberman (1993) stated that "the degree of self confidence is sometimes related to the degree of preparedness acquired." In addition, the possibility of meeting the various instructional needs of students will be at ease having adequate skills. As Dewalt and Ball (1987) revealed in their study, well prepared teachers especially those who took adequate education courses appeared to be better in creating affective classroom climate and dealing with individual differences than unprepared teachers. In addition, adequate preparation will also enable teachers know more and more about learners. According to Good and Brophy (1987) teachers with a good deal of knowledge about how their students learn and develop will be able to adapt their behavior interms of their students' needs.

Due to the above views some differences in relation to teachers' concerns were assumed as a result of their qualification. However, in the present study no differences are observed in all of the three concerns as a result of differences in teachers' qualification. This may be attributed to the absence of marked differences in the training mode of T.T.I.s and diplomas in our case. The basic difference between the two with respect to training is in relation to the subject that they are to teach. While there is a better emphasis on the subject they are to teach for diplomas, the T.T.I.s are given a sort of shallow coverage on subject areas (as the writer observed from the syllabuses). Regarding the professional courses to be offered both are given courses of similar nature. The T.T.I.s are given courses related to Pedagogy (which includes

teaching methods, instructional aids, classroom management etc.) and Psychology (growth and development as well as testing and evaluation) (MOE, 1994). Likewise from the experience of the writer, until recently the professional courses given to diploma trainees were Introduction to Psychology, Developmental Psychology, General Methodology (including Measurement and Evaluation) and Subject Area Methodology. So it seems that the diplomas are rather preferred to be at a better stand interms of their subject matter knowledge. Actually, for successful teaching, expertise in both pedagogical and content knowledge are important (Berliner, 1980 cited in Westerman, 1991). But since more of the professional expertise are to be built through education (pedagogical) courses, the proficiency of the diploma teachers interms of their content (subject matter) knowledge may not be very much helpful to differentiate them from T.T.I. teachers interms of their concerns. It is pedagogical consolidation that contributes a lot to increase one's impact in the classroom "by diversifying the instructional materials, the methods of evaluation, modes of grouping students and their instructional sequences" (Huberman, 1993). So based on these the absence of differences between the teachers regarding their concerns as related to their qualifications may be acceptable.

5.4 Results of Single Group Multivariate and Univariate Tests

As it is noted earlier these tests were needed in order to determine whether the teachers demonstrated concerns at more than moderate level and to find out on which one(s) of the concern(s) this has been revealed. As Eraut (1986) said the prevalence of one concern does not mean that others have ceased to matter. So we don't expect some concerns to be absent in the presence of others. This lead the writer to look at the magnitude of each of the concerns interms of the moderate level taken as a normative reference. In all the seven tests (Tables 4.9 and 4.10) the teachers demonstrated more than moderate level of concern in the three aspects of self concern, task concern and student concern. Certain personal views as to the possible justifications are discussed below.

In all the groups the teachers depicted more than moderate level of self concern. This may be because of the presently adapted trend of evaluation by students, parents and supervisors. Earlier teacher evaluation was made merely by supervisors in a very much infrequent manner; but the continual practicing of evaluation by many partners might have placed the teachers under thoughts of their competence. So this might have contributed for more than moderate level of self concern.

On the other hand, though group differences are evident especially for levels of experience, due to the problems of too many students in a class, heavy teaching load, shortage of instructional materials etc. it may not be unexpected for the teachers to have more than moderate level of preoccupation about task.

Again the teachers appeared to have more than moderate level of concern about their students. When we see the views regarding the preoccupation of teachers about their students, it is actually suggested that it is a concern about pupils that teachers should convey clearly and effectively (Fuller and Bown, 1975, Cullingford, 1995). It is when we can create an environment that takes an active interest in the problems of students (Goodlad, 1984) that learning will be effective; and it was suggested that student concern is revealed more as a result of maturity in experience (Fuller, 1969). However, "it might be quite difficult for teachers to indicate that they are not most concerned with guiding, challenging or meeting the needs of students" (Reeves and Kazelskis, 1985). As a result though group differences in terms of magnitude are observed, overall the teachers appeared to have significantly above average concern for students.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary

Though the study of teaching and teachers remained as basic themes of classroom research, teachers' concern has stayed a neglected topic. As a result, no adequate studies are available that tried to look at it from different facets. In case of some available ones there appeared a controversy especially in the precedence of the occurrence of the different facets of teachers' concerns. Then, this study took the disagreement and intended to see the issue in relation to the situation of our school teachers. Also, eventhough no direct treatment is made for teachers' sex and qualification in relation to their concerns in prior studies, this study considered them as possible attributes of teachers' concerns based on some inferred assumptions.

In an attempt to answer questions related to the presence of effect of sex, qualification and experience as well as to find out whether a more than moderate concern is revealed for various groups or not, the writer took 25 schools from Addis Ababa region. This selection was made depending on the availability of the teachers at the required levels of sex, qualification and experience. In conducting the study there

was a need to look into the personal background of the subjects basically in relation to whether there is any sort of discrepancy in the initial and later qualification of the teachers as well as whether they are attending a further education that is related to the field of teaching. A solution preferred to avoid such problems was to provide the questionnaire which requested for such cases to a large number of subjects and then pick those who reported these cases. At last from the obtained 249 usable subjects for the study a total of 120 are taken randomly; 10 from each cluster of sex, qualification and experience.

The obtained data was analysed by using SPSS/PC+ MANOVA (Multivariate Analysis of Variance). Initially stem and Leaf displays as well as normal plots are observed for each dependent variable to assess their normality and infer about multivariate normality. Again to look at homogeneity of group (cell) variances Barlett's test is used for each of the variables. It is after checking the fulfilment of these assumptions of multivariate normality and variance homogeneity that the researcher pursued to test the effects. Here the two way and three way interaction effects as well as the main effects are observed. In the result significant differences are observed only for the main effects of sex and experience. Then single group multivariate tests were done for separate groups of Sex, Qualification and Experience to compare whether the concerns of the teachers are above moderate level. This was done by taking 42 as a normative value based on the product of 14, the number of items used in each scale,

and the value of '3', which represented moderate level of concern in the scales. The results depicted significantly above moderate level of concern for all separate observations.

6.2 Conclusion

Generally from the analysis made and the obtained results the following tentative conclusions can be drawn.

1. The absence of interaction between and among sex, qualification and experience upon teachers' concerns denotes the independence of the effect of the one without the intervention of the other(s).
2. Female teachers are more self as well as student concerned than their male counterparts. But male and female teachers do not differ in their concern about task.
3. Teachers qualification is found to be a non-significant source of variation of concerns among the teachers.
4. Teachers' experience is found as a significant factor in the concerns of teachers. While low level of experience resulted in higher level of self concern, an overlap is observed between moderate and highly experienced teachers' task and student concerns in their dominance over the low experienced teachers.
5. For all separate groups of sex, qualification and experience the teachers in general do have above moderate level of self, task and student concerns.

6.3 Recommendations

1. It will be important if teacher trainees are allowed a long term school based practice. Especially the alleviation of high preoccupation about self is a matter of practice; so involving trainees to have adequate time of practice will be helpful. Here to avoid interference in the program of schools to which trainees are assigned, the practice can be conducted in different schools at different times.
2. Rather than giving trainees full responsibility starting from the beginning of their practicing period, if ways are paved for assigning regular classroom teachers, (especially those who are well experienced) as mentors to assist and advise them, it will be worthwhile for building the confidence of the novices. As Rhodes (1994) noted "mentors are key people in helping student teachers acquire basic classroom competence."
3. Inservice courses should be given through higher institutions or Regional Education offices to raise the competence of teachers in their teaching skills.
4. To make the process of teaching and learning complete and suitable for teachers in employing more thoughts about the intellectual growth of their students, considerations should be given to better equipped schools.

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Appendix A

Questionnaire Used in the Study

Addis Ababa University

Department of Educational Psychology

Questionnaire to be Filled by Teachers

Purpose:- The purpose of this questionnaire is to investigate how far 'teachers' concerns' can be explained in terms of their experience, sex and qualification. The information to be provided does not have any personal implication upon the respondent beyond its research value. So you are kindly requested to complete the questionnaire by giving it your considerable thought.

Thank you in advance

I. Biographical Information

Direction: Put this "√" mark where appropriate.

1. Sex male female

2. Your first qualification as a teacher.

T.T.I.

Diploma

Other _____.

App. A (contd.)

3. The qualification you hold now.

T.T.I.

Diploma

Other _____.

4. The total number of years you served as a teacher. _____ -

5. Are you attending any further education now?

Yes

No

6. If 'yes' answer the following.

6.1 What program are you attending?

Summar

Extension

6.2 Indicate the year level you have reached now.

1st 2nd 3rd 4th 5th 6th 7th

6.3 Specify your field of study.

App. A (contd.)

II. Teachers' concerns checklist

Direction:- Being concerned about something is not the same as thinking it is important. But it means you think about it frequently or give more thought to it than other aspects of your teaching task and in some cases you might like to do something about it personally. Thus you might be concerned about various problems, opportunities, issues and so on.

In the following checklist there are 42 statements. Please read each statement and ask yourself 'when I think about my teaching, how much am I concerned about this?' and then circle the number that best corresponds to your level of concern as described below:

Circle '5' if you are extremely concerned about what is stated.

Circle '4' if you are very concerned about what is stated.

Circle '3' if you are moderately concerned about what is stated.

Circle '2' if you are a little concerned about what is stated.

Circle '1' if you are not concerned about what is stated.

1. Increasing students' feelings of accomplishment	5	4	3	2	1
2. Selecting and teaching content well	5	4	3	2	1
3. Whether students really like me or not	5	4	3	2	1
4. Motivating students to study	5	4	3	2	1
5. The nature and quality of instructional materials	5	4	3	2	1
6. Lack of opportunity for professional growth	5	4	3	2	1
7. Adapting instruction to the learning level of students	5	4	3	2	1

App. A (contd.)

8. Grading of papers.	5	4	3	2	1
9. Inadequate teacher salaries	5	4	3	2	1
10. Helping students to value learning	5	4	3	2	1
11. Preparation of plans	5	4	3	2	1
12. Fulfilling the expectations of supervisors and colleague teachers	5	4	3	2	1
13. Guiding students towards intellectual and emotional growth	5	4	3	2	1
14. Budgeting of time	5	4	3	2	1
15. Inadequate fringe benefits for teachers	5	4	3	2	1
16. Whether students grasp subject matter fundamentals	5	4	3	2	1
17. Heavy teaching load	5	4	3	2	1
18. My proficiency in content knowledge	5	4	3	2	1
19. Absence and dropping out of students	5	4	3	2	1
20. Utilization of different teaching methods	5	4	3	2	1
21. Many standards and regulations set for teachers	5	4	3	2	1
22. Whether students can apply what they learn	5	4	3	2	1
23. Effective use of textbooks and curriculum guides.	5	4	3	2	1
24. Fear of criticism for failure of many students	5	4	3	2	1
25. Slow progress of certain students.	5	4	3	2	1
26. Adequately presenting all the required material	5	4	3	2	1

App. A (contd.)

27. Doing well when a supervisor is present	5	4	3	2	1
28. Recognizing the social and emotional needs of students.	5	4	3	2	1
29. Planning and organizing learning activities.	5	4	3	2	1
30. Feeling more adequate as a teacher.	5	4	3	2	1
31. Diagnosing students learning problems.	5	4	3	2	1
32. The large number of students I should work with in each day.	5	4	3	2	1
33. Being accepted and respected by professional persons.	5	4	3	2	1
34. Helping students to know effective studying techniques.	5	4	3	2	1
35. Lack of instructional materials.	5	4	3	2	1
36. Getting favourable evaluation of my teaching.	5	4	3	2	1
37. Meeting the needs of different kinds of students.	5	4	3	2	1
38. Too many non-instructional (not directly related to the teaching task) duties.	5	4	3	2	1
39. Maintaining the appropriate degree of class control.	5	4	3	2	1
40. Challenging unmotivated students.	5	4	3	2	1
41. The routine and inflexibility of the teaching situation.	5	4	3	2	1
42. What my colleagues might think about my teaching ability	5	4	3	2	1

Thank you.

Appendix B

Schools Involved in the Study

Pilot Study

1. Addis Hiwot Primary School.
2. Kidus Giorgis Primary and Junior Secondary School.
3. Miazia 23 Primary and Junior Secondary School.
4. Taitu Bitul (Kuskuam) Primary and Junior Secondary School.
5. Yemane Birhan Primary School.

Main Study

1. Agazian No.1 Primary and Junior Secondary School.
2. Akaki Textile Primary and Junior Secondary School.
3. Alemaya Primary and Junior Secondary School.
4. Asay Primary and Junior Secondary School.
5. Ase Tewodros Primary and Junior Secondary School.
6. Ase Zera Yakob Primary and Junior Secondary School.
7. Birhane Ethipia Primary School.
8. Biruh Tesfa Primary and Junior Secondary School. (Government).
9. Biruh Tesfa Primary and Junior Secondary School. (Public).
10. Bole Hibreteseb Primary and Junior Secondary School.
11. Dj. Balcha Aba Nefso Primary School.

Appendix B (contd.)

12. Dj. Zeray Deres Primary and Junior Secondary School.
13. Edget Besira Primary and Junior Secondary School.
14. Ewket Fana Primary and Junior Secondary School.
15. Ewket Lehibret Primary and Junior Secondary School.
16. Gelan No. 1 Primary and Junior Secondary School.
17. Gelan No. 2 Primary and Junior Secondary School.
18. Lake Adigeh Primary and Junior Secondary School.
19. Mekanisa Akababi Primary and Junior Secondary School.
20. Mekdela Primary and Junior Secondary School.
21. Nesanet Birhan Primary and Junior Secondary School.
22. Omedla Primary and Junior Secondary School.
23. Selam Ber Primary and Junior Secondary School.
24. Tesfa Primary and Junior Secondary School.
25. Yekatit 23 Primary and Junior Secondary School.

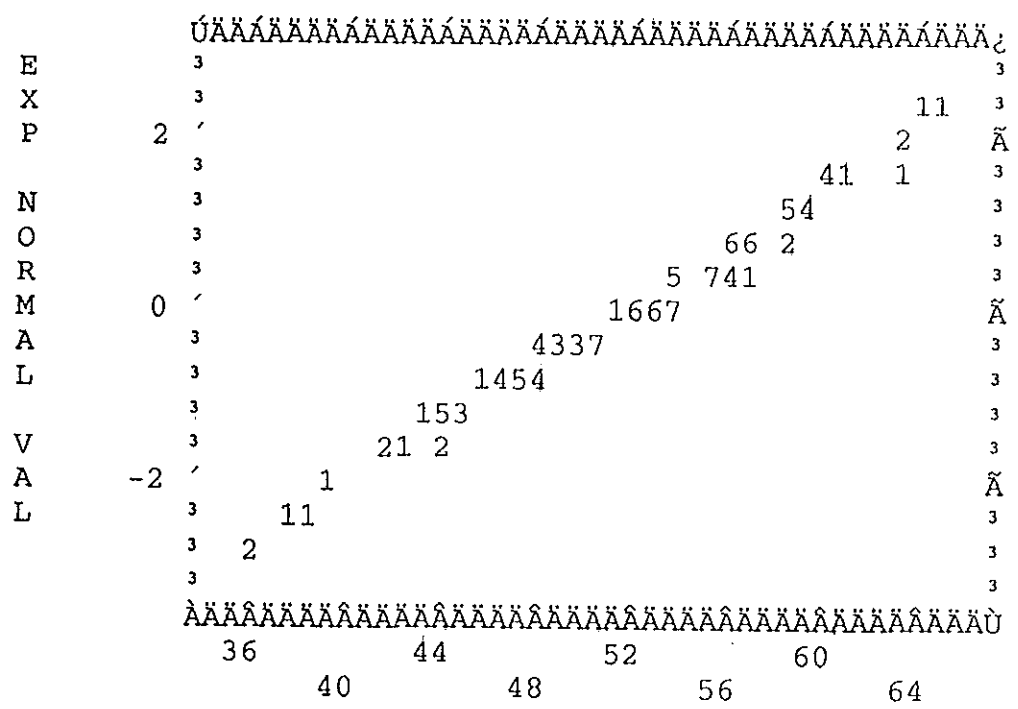
Appendix C

Figure 10. Stem-and-Leaf Display for Self Concern Scores

```

36 . 00
38 . 00
40 . 000
42 . 0000
44 . 000000000
46 . 000000000
48 . 00000000000
50 . 00000000000
52 . 0000000000000
54 . 00000000000000000
56 . 0000000000000
58 . 000000000000000
60 . 0000000000
62 . 000
64 . 00
    
```

Figure 11. Normal Plot for Self Concern Scores



APP. C (contd.)

Stem-and-Leaf Display for Student Concern Scores

```

36 . 0
38 . 0
40 . 000
42 . 00
44 . 0000
46 . 00000
48 . 0000000000
50 . 0000000000000000
52 . 00000000000000000000
54 . 000000000000
56 . 0000000000000000
58 . 00000000000000
60 . 000000000000
62 . 000000
64 . 00
66 . 0
68 . 000
  
```

Normal Plots for Student Concern Scores

