Prospective Teachers' Sense of Efficacy and Beliefs about Managing Students: Implications for Professional Development of Teachers

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Abstract: This study examined relations of prospective teachers' sense of efficacy to their beliefs about managing students. The data for the study was collected from 94 fourth year students in the pre-service teacher education program at Bahir Dar University in 2002/2003 academic year. Indices of efficacy and classroom control variables were measured by employing scales. Analysis involving correlation suggested that teaching efficacy was significantly correlated with pupil control ideology and motivational orientation. Neither teaching efficacy nor personal efficacy was related to bureaucratic orientation. Analysis involving mainly multiple regressions revealed that teaching efficacy and the interaction of teaching and personal efficacy made unique contribution to the prediction of pupil control ideology and motivational orientation. The findings suggested the desirability of developing programs that would help teachers enhance their feelings of efficacy during the formative pre-service and early in-service years.

Introduction

Background to the Problem

Teachers are faced with different problems. For example, Bluming and Dembo (1973) stated that teachers rarely leave their profession as a result of inadequate training in their discipline. Many leave teaching because they are discouraged by their own beliefs that

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interfere with normal teaching situation. They leave teaching when they find themselves unable to make effective decisions about the problems that arise in their classrooms (Dembo, 1994). Researchers have labeled these beliefs as teachers' sense of efficacy- the extent to which teachers believe that they can affect students learning. There is evidence that teacher's beliefs in their abilities to instruct students may account for individual differences in effectiveness (Brookover et al., 1978; Berman and McLaughlin, 1977). Berman and McLaughlin (1977), in their evaluation of projects of the 1965 Elementary and Secondary Education Act, found that the most important characteristic determining the effectiveness of change- agent projects was teachers' sense of efficacy. Brookover et al. (1978) reached a similar conclusion in investigating the school climate variables influencing achievement. These researchers reported that teachers in high-achieving schools spent longer proportions of time in instruction and demonstrated greater concern and commitment to their students' achievement.

In their study about teacher efficacy, researchers have indicated that teachers' beliefs in their own ability to affect learning are related to such significant variables as teachers' beliefs about managing students (Ashton and Webb, 1986), students motivation (Midgely et al., 1988), teachers' adoption of innovation (Berman et al., 1977; Guskey, 1988) and students achievement (Armor et al., 1976).

To novice teachers, a sense of efficacy may be related in part to experience of managing and motivating students. Doyle (1986) suggests that one of the two major tasks of teaching is to establish and maintain order in the classroom. This task is especially problematic for beginning teachers. Research has found that maintaining classroom discipline and motivating students are, among new teachers, the greatest concern (Fuller and Brown, 1975; Veenman, 1984). Beginning teachers are first concerned with issues

of survival and adequacy, and only later with mastery of teaching tasks and their effects on students (Fuller and Brown, 1975). Other teachers may be concerned more with maintaining student control than making academic progress (Rosenholtz, 1989). These new circumstances tend to create two major responses among beginning teachers (Feinman-Nemser, 1983; Zeichner, 1986). First, beginners tend to focus a great deal of energy on mastering the art of classroom control. They try out various ways of handling and preventing disruptions and search for activities that promise, among other things, to keep students constructively busy. Second, teachers often worry privately about what to teach. For example, efficious teachers may tend to use elements of direct instruction that include a pattern of behavior used by effective teachers: structured academic activities supervised by the teacher, extensive content coverage, monitoring of student performance, specific questioning of students, and use of large group instruction (Gibson and Dembo, 1964).

Researchers in similar fields of inquiry (Woolfolk et al. cited in Dembo, 1994) found that teachers who had a high sense of efficacy favored a more humanistic approach to discipline (i.e., more discussion, self-discipline, solving problems through cooperative interaction) and supported student autonomy in solving classroom problems. Teachers who believed that students must be controlled and cannot be trusted were also likely to believe that extrinsic rewards are important factors in motivating students. Similarly, Barfield and Burlingame (1974) emphasized that teachers with a low sense of efficacy are less humanistic than average or high efficacious teachers in their beliefs about managing students. Barfield and Burlingame (1974) suggested that low- efficacy teachers might see control as more important. They spend more energy coping with the environment than teachers with a high sense of efficacy. Ashton et al. (1983) found that teachers' sense of efficacy was negatively related to their use of strong control tactics. In addition, high efficacy teachers

were not as likely as low-efficacy teachers to appear angered or threatened by student misbehavior.

Dembo and Gibson (1985) believed that differences in teachers sense of efficacy result primarily from environmental factors. For example, teachers who are properly trained to deal with the diversity of students who are supported by the principals, who develop collegial relations with their fellow teachers, and who work co-operatively with parents are more likely to develop the belief that they can solve teaching problems and help students to learn. Unfortunately, there are teachers with low sense of efficacy who do not have these exposures. As a result, they are less likely to believe that they can help certain students to learn.

In general, the study of the relationship between teacher efficacy and teacher decision-making in the area of classroom organization and management is needed. This is because classroom management decisions are based on teacher's sense of confidence in achieving instructional goals, in being able to manage the behavior of students, or in being able to control instructional setting.

Teachers' beliefs about managing students involve how much opportunity students are given to take their own initiative and responsibility for their learning. Their beliefs regarding how motivation should be viewed influence classroom organization. Teachers, particularly novice teachers, are concerned not only with establishing order and gaining student co-operation in the classroom but they are also concerned with how students are controlled by the school in which they work. Research (Woolfolk and Wayne, 1990; Ashton and Webb, 1986) revealed that prospective teachers' sense of efficacy is related to their beliefs about managing students: pupil control ideology, motivational orientation and bureaucratic orientation. Below is a brief review of these conceptual bases.

Pupil Control Ideology: Fuller and Brown (1975) identified pupil control ideology as a concern about pupils' social and emotional needs. In this regard, pupil control has been conceptualized along a continuum, from custodial at one extreme to humanistic at the other (Willower et al., 1967). The model of the custodial perspective is that the traditional school provides a rigid and highly controlled setting concerned primarily with the maintenance of order. Impersonality, pessimism, punishment, and watchful mistrust pervade the atmosphere of school. Control oriented teachers are likely to motivate students with rewards and subtle control procedures (Deci et al., 1981). On the other hand, the model of the humanistic perspective perceives school as an educational community in which students learn through co-operative interaction and experience. Self-discipline is substituted for strict control.

A humanistic perspective suggests that students will follow rules and work hard in school to the extent that their needs to belong, to be free, to gain power, and to have fun are satisfied (Glasser cited in Dembo, 1994). A humanistic orientation is used in the socio-psychological sense. It indicates a perspective stressing the importance of the individuality of each student and the creation of a climate to meet a wide range of student needs (Fromm, 1948). The findings of differences in student grouping have been found in the teacher effectiveness literature. More effective teachers conducted more large group and/or whole class instruction while less effective teachers worked with individual students, small groups, or they had students working independently. Rosenshine (1979) stated that such studies indicate that the use of large group settings allows for more adult supervision. It is unlikely that when teachers are only working with individual or small groups of children they are unable to provide supervision for the rest of the students who, as a result, attain less academically.

Similarly, Glasser cited in Dembo (1994) emphasized that a humanistic perspective should focus more on the school's meeting of student needs than on helping student deal with the conditions that they encounter in school. These needs can be satisfied through such activities as classroom discussions, school-supervised work opportunities in the community, student- directed learning, and co-operative learning in academic areas. Glasser believed that when pupil control ideology is practiced in school, externally imposed behavioral programs of discipline will no longer be necessary. Students will be motivated to control themselves.

Research has shown that teachers who have more custodial orientation tend also to be external in their locus of control (Henderson cited in Woolfolk and Wayne, 1990), authoritarian and dogmatic in their belief systems, and traditional in their values. They are also less progressive in their educational attitudes (Nachtschiem and Hoy, 1976).

Barfield and Burlingame (1974) found that low efficacy teachers were more custodial in their pupil control ideology than were teachers with a high sense of efficacy. The researchers suggested that low efficacy teachers might see control to be a more important thing than many other things. They also spend more energy cooperating with the environment than teachers with a high sense of efficacy. Ashton et al. (1983) found that teachers' sense of efficacy was negatively related to their use of strong control factors. Similarly, a persistent finding of research on teacher socialization is that teachers become more custodial with experience (Hoy and Rees, 1977). This is due to the socialization process in schools where teachers are expected to manage well-behaved and controlled students. As a result, teachers want to become good classroom managers and tend to become less humanistic.

Motivational Orientation: When teachers deal with approaches to improve the social or academic performance of students their concern pertains to the motivational orientation model. The motivational orientation model grows from cognitive theory (Deci, 1975). The motivational orientation suggests that achieving the demands of teaching has both a controlling dimension and an informational aspect. The purpose of the controlling aspect is to produce a particular behavioral outcome in the individual, whereas the purpose of the informational aspect is to communicate relevant information.

Teachers' control in motivational orientation seeks to direct their students' activities in a relational manner. They encourage discussion, and exert firm control when students disobey. They do these without being overly restrictive. They set standards of conduct (Kochanska et al., 1989). These students tend to be self -reliant, self-controlled, self-confident, and socially competent (Dekoric and Janssens, 1992). Canter cited in Dembo (1994) emphasized teachers' right to an orderly classroom and identifies measures that they can take to ensure these rights. Motivation orientation model encourages teachers to expect students to behave appropriately. Teachers should set limits and follow through on limits. Canter believed that reinforcement is an important aspect of developing a management plan and favors the use of such consequences as personal attention from the teacher, positive notes to parents, special awards and privileges.

Deci and his associates (Deci et al., 1981) argue that intrinsic motivation is encouraged when teacher emphasizes providing information to students rather than controlling them. Teachers' orientations toward autonomy and control are related to students' intrinsic motivation and their approaches to solving classroom problems (Deci et al., 1981). Teachers who believe that classroom problems should be solved by encouraging student autonomy and

responsibility tend to have students who are more intrinsically motivated and who solve problems more effectively. Teachers who in general expect students to learn and who have confidence in their ability to teach may communicate higher expectations by providing less criticism and persisting with students until they respond correctly (Gibson and Dembo, 1964). Good (1981) highlighted that not staying with low- expectation students in failure situations, criticizing low-expectation more frequently than high expectation students for incorrect responses, and praising low-expectation less frequently than high expectation students after correct answers, are the behaviors consistently found among low-efficious teacher.

In sum, motivational orientation deals with approaches that teachers might take to improve the social or academic performance of individual students. Teachers' control in motivational orientation directs their students' activities, encourages discussion, sets standard of conduct and exerts firm control when students disobey without being overly restrictive. As a result students tend to be self-controlled, self-confident, and socially competent.

Bureaucratic Orientation: Various educators (Hoy, 1967; Woolfolk and Wayne, 1990) referred to bureaucratic orientation as the individual's commitment to the set of attitudes, values, and behaviors that are characteristically encouraged by bureaucracies. A teacher has all the power to define the rules while offering group and individual rewards for compliance and administering punishments through public disclosure. There is no systematic means by which students are allowed to contribute any input to the process. Nowhere are students viewed as capable critical thinkers or decision-makers. They are considered as the cause of all problems. (Curwin and Mendler, 1989). Beginning teachers who have utilized bureaucratic orientation model equally become more impersonal and authoritarian during their initial orientation to the real world of teaching (Hoy, 1967).

In bureaucratic orientation model, teachers in schools are expected to defer to the authority of their superiors, follow the official rules and regulations, make judgments in an impersonal fashion and demonstrate loyalty to the administration and school performance. They are controlled primarily by directives received from their superior. Thus a bureaucratic orientation is conceived as one that emphasizes self -subordination, impersonality, rule conformity, traditionalism, and loyalty to the school (Bllau and Scott, 1962; Gordon, 1970). Bureaucratic orientation emphasizes teachers' rights to an orderly classroom and identifies procedures that they can take to ensure these rights. It encourages teachers to expect students to behave appropriately and use an assertive response style. At a general level, bureaucratic orientation is a "take -charge" approach to discipline that emphasizes the importance of teacher rights to an orderly classroom.

Overall, given these relations between dimensions of teacher efficacy (teaching and personal efficacy) on the one hand and beliefs about several aspects of classroom control or management, namely, pupil control ideology, motivational orientation, and bureaucratic orientation on the other, the review points to the need for investigating the inter-relationships of these variables. In addition to testing these relationships, the review points to the need to explore the interactive effects of teaching and personal efficacy on each of the three aspects of control.

Statement of the Problem

The central purpose of the study is to examine the relationships between prospective teachers' sense of efficacy and beliefs about several aspects of classroom management styles. Researchers have reported that teachers' beliefs in their classroom management strategies may account for individual differences in effectiveness. On

the basis of the results emerged from this review of findings it was predicted that teachers with a low sense of efficacy tend to hold a custodial orientation that takes a pessimistic view of student's motivation. Thus, low efficacy teachers emphasize rigid control of classroom behavior. They rely on harsh and punitive management strategies, whereas high efficacy teachers encourage student autonomy, trust, and responsibility (Ashton and Webb, 1986; Barfield and Burlingame, 1974). High efficacy teachers create mastery experiences for their students whereas low efficacy teachers undermine students' cognitive development and students' judgments of their own capabilities (Gibson and Dembo, 1984). It was also predicted that both dimensions of teacher efficacy (teaching and personal) negatively related to custodial control ideology and controlling motivational orientation. Moreover, it was assumed that the interaction of teaching and personal efficacy made unique contribution to each of these three specified aspects of control. In this regard, the research questions addressed in this study were:

1. Are prospective teachers' sense of efficacy (teaching and personal) related to their beliefs about motivational orientation, bureaucratic orientation, and pupil control ideology (all of which are teachers' beliefs about classroom control or managing students)?
2. Does each of the indices of teachers' efficacy (teaching or personal) have an independent contribution to teachers' styles of control or management in school (cited in No. 1 above)? If so, does the interaction of teaching and personal efficacy have a contribution to teachers' beliefs about managing students?

Significance of the Study

Understanding the relationships between teacher efficacy and beliefs about several aspects of management is of a major concern to

teacher education programs particularly in the Ethiopian context. In Ethiopia little is known about the contribution of these variables to well-managed schooling environments in primary and secondary school levels. Briefly, the study is significant because it:

1. clarifies the relationships between prospective teachers' beliefs about efficacy and their orientations toward discipline.
2. helps to formulate policy measures to influence teachers' sense of efficacy and beliefs about control in school.
3. helps to identify ways to make teachers more able to manage and motivate students in the classroom.

Method

Subjects

The subjects of the study were 94 students who were in their final year of the pre-service teacher education program in 2002/2003 academic year at the Faculty of Education, Bahir Dar University. The rationale for choosing the Faculty of Education arose from two sources. One, the Faculty of Education is the researcher's place of work. This might allow him to participate in future intervention. Two, the data obtained from prospective graduates would be of practical importance to the university in the future.

Education Faculty consisted of 9 departments in 2002/3 academic year: Pedagogical science, Physics, Chemistry, Biology, Amharic, English, Geography, History, and Mathematics. Out of the nine departments in the Faculty, three departments; namely; Pedagogical science, Mathematics, and English were selected through random sampling. Altogether the study was conducted on 96 students (15 Pedagogical science majoring students, 36 Mathematics students and 45 English majoring students). Two of the 96 students planned to be used in the study failed to respond appropriately to the questionnaire,

and were rejected from the sample. Thus the study was conducted on 94 fourth year students selected from three departments.

The rationale for selecting only 4th year students arose form the understanding that fourth year students were trained in instructional and managerial techniques that may help them establish order in classroom.

Measures

Measure of Teacher Efficacy Scale (MTES). Items in MTES were designed to measure teacher's commitment to a set of attitudes and behaviors. The attitudes and behaviors have a positive effect on student learning (Ashton and Webb, 1986).

Data collected from respondents were classified into two indices of teacher efficacy; namely, personal efficacy (PE) and teaching efficiency (TE).

Personal efficacy refers to the teacher's judgment of his or her personal ability to execute particular courses of action (Ashton and Webb, 1986). Items in personal efficacy scale appear to represent a teacher's belief, whether or not one has the skills and abilities to bring about student learning. They refer to individuals' assessment of their own teaching competence. They reflect the teacher's sense of personal responsibility in student learning and behavior. The personal efficacy scale used in this study had 12 items. The items were selected from the works of Ashton and Webb (1986). All of the items state positive attitudes. Examples of the items are:

1. When I really try, I can get through to most difficult students.
2. I have enough training to deal with almost any learning problem.

In the personal efficacy scale, the response to each item is along a four-point Likert scale that ranges from strongly agree (4) to strongly disagree (1). The higher the score on the personal efficacy scale, the more efficacious the response would be. The reliability of this scale, as estimated by Cronbach's alpha, is 0.98.

Teaching efficacy in turn refers to the teacher's outcome expectations about the consequences of teaching (Ashton and Webb, 1986). Items in teaching efficacy scale refer to teacher's belief that teaching can influence student learning. They reflect a teacher's belief that any teacher's ability to bring about change is significantly limited by factors external to the teacher, such as home environment, family background, and parental influences. The teaching efficacy scale used in this study consisted of 8 items. The items were selected from the works of Ashton and Webb (1986). Most of the items state negative attitudes about teaching. Examples of the items are:

1. A teacher is very limited in what he/she can achieve because a student's home environment is a large influence on the student's achievement.
2. Teachers are not a very powerful influence on student achievement when all factors are considered.

In the teaching efficacy scale, like in the personal efficacy scale, the response to each item is along a four-point Likert scale ranging from strongly agree (1) to strongly disagree (4). Disagreeing with these items shows efficacious response. For this scale Cronbach's alpha is 0.96.

Measure of Motivational Orientation Scale (MMOS). Items in motivational orientation scale deal with approaches that teachers might take to improve the social or academic performance of individual student. The MMOS items used in the present study were

adopted from Woolfolk and Wayne (1990) and the available literature. The MMOS consisted of 4 items along with four possible solutions for each dilemma. The four solutions describe a highly controlling (HC), moderately controlling (MC), moderately autonomous (MA), or highly autonomous (HA) solution to the problem. Respondents were asked to rate each of these solutions for each of the four problems on a 4-point scale that ranged from very appropriate (1) to very inappropriate (4). An example of the item is:

> A boy loses his temper and has a way of agitating other classmates. He does not respond well to what the teacher tells him to do. The teacher is concerned that the boy will not learn the appropriate social skills. The best thing for the teacher to do with the boy is:
> (HC). Placing the boy in a class, which has the reward contingencies the boy likes.
> (MC). Emphasizing how important it is to the boy to "control himself" in order to succeed in school and in other situations.
> (MA). Helping the boy understand how other children behave in various situations and rewarding him for doing the same.
> (HA). Realizing that the boy is probably not getting the attention he needs and beginning to be more responsive to the boy.

The appropriate ratings of the four HC responses (one for each of the four different problems are averaged to determine the HC subscale score). Subscale scores for the MC, MA, and HA responses are calculated following the same procedure. A total score of motivational orientation for each respondent is then determined using the formula=-2(HC)-(MC)+(MA)+2(HA). The higher the score, the more the respondent favors control. This formula was utilized in the present

study in the same way it was used by Woolfolk and Wayne (1990). Internal consistency of the motivational orientation scale was 0.82 whereas the reliability indices measured by Cronbach's alphas for the HC, MC, MA, and HA subscales were 0.76, 0.73, 0.77 and 0.79 respectively.

Measure of Pupil Control Ideology Scale (MPCIS). Items in MPCIS were designed to measure teachers' instructional and managerial behaviors in the classroom. The MPCIS had 13 items adopted from Willower et al. (1967). Examples of the items are:

1. Being friendly with students often leads the students to become too familiar.
2. It is desirable to require students to sit in assigned seats during assemblies.

In the MPCIS, the responses to the statements are "strongly agree," "agree," "disagree," and " strongly disagree" They were scored 4,3,2, and 1, respectively. The higher the score, the more custodial the respondent's orientations toward pupil control. The reliability index of MPCIS, measured by Cronbach's alpha coefficient, is 0.79.

Measure of Bureaucratic Orientation Scale (MBOS). Items in MBOS are concerned with measuring prospective teachers' commitment to the set of attitudes, values, and behaviors that are encouraged by bureaucracies. The MBOS is composed of 6 items adopted from Gordon (1970) and the reviewed literature. Examples of the items are:

1. A teacher's first real loyalty within the school is to his/her boss.
2. Within a school, it is unwise to question an established way of doing things.

In the MBOS, the responses to the statements are "strongly agree," "agree," disagree," and " strongly disagree". They were scored 4, 3,2, and 1, respectively. The higher the score, the more bureaucratic the respondent's orientation. The reliability index of MBOS, measured by Cronbach's alpha coefficient, is 0.84.

In general, all these measurements were selected for two reasons. First, their reliability indices were qualified as "good" according to the standard of 0.75 set by Show and Wright (1967). Second, the items in each scale were relevant and meaningful to the subjects of this study.

Data Collection Procedure

The data for the study was collected through student questionnaire. The researcher administered the questionnaire with the help of two assistants during regular class hours. The subjects completed the questionnaire in less than one hour. Appropriate instructions were given to the subjects prior to their completion of the questionnaire. Matters related to the objectives of the study and the anonymity of the subjects were also made clear to the subjects before they completed the questionnaire.

Data Analysis Method

The purpose of this research was to investigate prospective teachers' sense of efficacy and beliefs about managing students in classroom. For this purpose correlation and multiple regression analyses were used to examine the data. Correlation analysis was used to test the relationships between all the specified variables in the study. Multiple -regression analysis was employed to examine the contribution of personal efficacy, teaching efficacy and their interaction with each of the three dependent variables - pupil control ideology, motivational orientation, and bureaucratic orientation.

Results

Results are reported in two sections. First, interrelations among personal efficacy, teaching efficacy, pupil control ideology, bureaucratic orientation and motivational orientation are reported. Next, results of multiple-regression analysis are presented.

Interrelationships among Variables

Table 1 Indicates zero order correlations between the variables as well as the means and the standard deviations of the variables.

Table 1. Means, Standard deviations, and Intercorrelations for Efficacy and Control Variables.

Variables	M	Sd	PE	TE	PCI	BO	MO
Personal Efficacy (PE)	34.54	4.31	__				
Teaching Efficacy (TE)	20.71	3.29	0.19	__			
Pupil Control Ideology (PCI)	43.54	4.87	0.02	0.34*	__		
Bureaucratic Orientation (BO)	16.12	2.47	0.19	0.11	0.05	__	
Motivational Orientation (MO)	0.39	2.18	0.06	0.24*	0.27*	0.01	__

* $P < 0.05$.

Findings shown in Table 1 indicate that personal efficacy and teaching efficacy were not significantly related to each other as well as to bureaucratic orientation. Personal efficacy was not significantly related to pupil control ideology and motivational orientation.

In line with expectation, teaching efficacy was significantly correlated to pupil control ideology and motivational orientation. Results in Table 1 further report that indices of control variables were not significantly correlated with each other except in a single case: pupil control ideology was significantly correlated with motivational orientation.

Personal Efficacy and Teaching Efficacy as Predictors of Pupil Control Ideology, Motivational Orientation, and Bureaucratic Orientation.

A series of multiple- regression models was built to examine relations between dimensions of efficacy and the measures of control variables. In the current study, in addition to testing these relationships, the interactive effects of teaching and personal efficacy on each of the dependent variables are explored (see Tables 2, 3, and 4).

In order to interpret the significant interactive effect of teaching and personal efficacy on pupil control ideology, motivational orientation, and bureaucratic orientation, the subjects were divided into high and low levels on personal and teaching efficacy. The mean scores of the subjects in each dependent variables were computed. The means of the significant interactions are shown in Table 5. Figures 1 and 2 present graphs of the interactions.

Table 2: Multiple Regression Analysis of Pupil Control Ideology by Teaching Efficacy (TE), Personal Efficacy (PE), and Their Interaction.

Source	DF	Sum of Scores	R^2	F
TE	1	475.07	0.12	6.13*
PE	1	220.53	0.00	0.05*
TExPE	1	159.70	0.18	9. 65*
Regression	2	259.69		4.06*
Residual	91	1949.64		
Total	**93**	**2209.33**		

* p < 0.05

As shown in Table 2, results of the unique proportion of variance explained by teaching efficacy is 12 percent, F (1, 91) = 6.13, P < .05.

The unique proportion of variance explained by the interaction TE x PE is 18 percent, $F(1, 91) = 9.65$, $P < .05$. Thus both teaching efficacy and the interaction of teaching efficacy and personal efficacy made a unique contribution to the prediction of pupil control ideology. Personal efficacy alone made no unique contribution to pupil control ideology.

Similarly, findings shown in Table 3 also indicate that teaching efficacy and the interaction of teaching and personal efficacy made a unique contribution to the prediction of motivational orientation. Results of an increment to R^2 test indicated that teaching efficacy explained 5.64 percent of the unique variance in motivational orientation, $F(1,91) = 1.83$, $P < .05$. The unique proportion of variance explained by the interaction TE x PE is 2.96 percent, $F(1, 91) = 1.45$, $P < .05$.

Table 3.   Multiple Regression Analysis of Motivational Orientation by Teaching Efficacy (TE), Personal Efficacy (PE), and Their Interaction.

Source	DF	Sum of Scores	R^2	F
TE	1	21.52	0.056	1 .83*
PE	1	0.01	0.00	0.03
TE x PE	1	1.44	0.03	1.45*
Regression	2	14.71		5.75*
Residual	91	403.55		
Total	**93**	**428.27**		

* $P < 0.05$

Findings shown in Table 4, on the other hand, revealed that none of the variables made a unique contribution to the prediction of bureaucratic orientation.

Table 4: Multiple Regression Analysis of Bureaucratic Orientation by Teaching Efficacy (TE), Personal Efficacy (PE), and Their Interaction.

Source	DF	Sum of Scores	R^2	F
TE	1	0.33	0.03	1.10
PE	1	0.31	0.07	0.23
TExPE	1	984.04	0.02	0.48
Regression	2	23.97		1.33
Residual	91	521.74		
Total	**93**	**567.71**		

As noted in Table 2 (mentioned earlier), the regression analysis revealed a significant effect on teaching efficacy and a significant interaction between teaching and personal efficacy on pupil control ideology. An examination of means of the significant interactions shown in Table 5 revealed that when teachers are high in teaching efficacy, those with high personal efficacy are more humanistic than those with low personal efficacy. However, when teachers are low in teaching efficacy, the pattern is reversed; teachers with high personal efficacy are more custodial than teachers with low personal efficacy. Results shown in Table 3 (mentioned earlier) revealed a significant effect on teaching efficacy and a significant interaction between teaching and personal efficacy on motivational orientation. An examination of means shown in Table 5 revealed that when teachers are high in teaching efficacy, those with high personal efficacy are more autonomous than those with low personal efficacy. However, when teachers are low in teaching efficacy, those with high personal efficacy are more oriented towards control than teachers with low personal efficacy.

Table 5: Mean Scores of Pupil Control Ideology and Motivational Orientation by Level of Personal Efficacy (PE) and Level of Teaching Efficacy (TE).

Dimensions of Dependent Variables	Personal Efficacy (PE)	Teaching Efficacy (TE)	
		Low	High
Pupil Control Ideology (PCI)*	Low	23.54	22.45
	High	27.73	22.16
Motivational Orientation	Low	0.60	0.20
(MO)**	High	0.80	0.11

  *   Range = 20-29. The higher the score, the more custodial the orientation
  **   Range = 0.01-0.91 the higher the score, the more the respondents favor control

A summary of the results of the significant interactions of the means is shown in Figures 1 and 2 below:
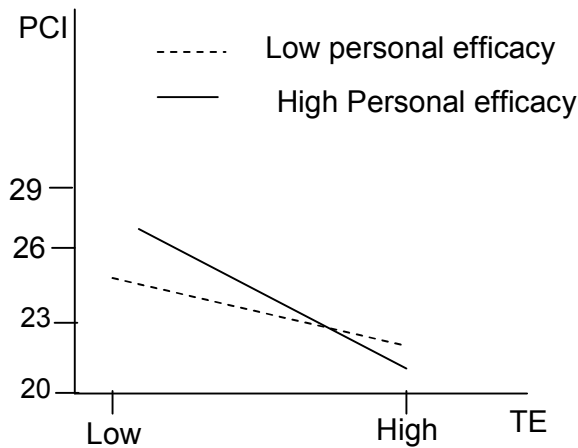

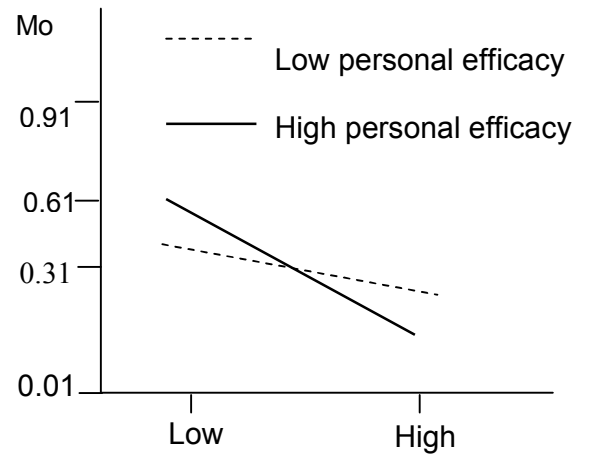Figure 1. Plots of Possible Interactions between PCI x TE

Figure 2. Plots of Possible Interactions   Between MO x TE

Discussion

The frontline issue in the present study has been to explore the relationship between teacher efficacy and beliefs about several aspects of management styles. The discussion of this central issue is presented along the following two lines.

Interrelations among Efficacy and Control Variables

Contrary to expectation, teaching efficacy was not significantly correlated with personal efficacy. This indicates that teaching efficacy and personal efficacy are two independent dimensions of efficacy. Thus, individuals who believe that teaching is a potentially powerful factor in student's learning may either believe that they are effective or that they lack the ability to make difference with their own students. It is also possible to hypothesize that these teachers may believe that teaching in general can have little impact on student learning. As a result, the finding of the present study suggests that studies that simply combine personal and teaching efficacy into one index (e.g., Ashton and Webb, 1986; Fuller and Izu, 1986; Guskey, 1988) are likely to miss these patterns of relationships. Research has supported this explanation (Woolfolk and Wayne, 1990; Gibson and Dembo, 1984). Similarly, Bandura (1977) maintained that self-efficacy is by definition situation-specific and cannot be identified as an integration of teaching efficacy and personal efficacy.

Results in the correlation analysis also revealed that teaching efficacy was related significantly and positively to pupil control ideology. The more the prospective teachers believed in the power of the school to overcome the influence of home and background factors, the more humanistic their orientation toward pupil control. Prospective teachers who believed that teaching is a potentially powerful factor in student's learning are more humanistic in their pupil control ideology than those

with low teaching efficacy. This result agrees with the findings of many researchers (Willower et al., 1967; Fromm, 1948).

In line with expectation, teaching efficacy was significantly correlated with motivational orientation. Thus the more prospective teachers believed in the power of the school to overcome the influence of home and background factors, the more they favor encouraging autonomy in children. Research supports this assertion (Deci et al., 1981; Woolfolk et al., 1989). For example, Woolfolk et al. (1989) found that teachers who had a high sense of efficacy favored a more humanistic approach to discipline (i.e., more discussion, self-discipline, solving problems through co-operative interaction) and supported student autonomy in solving classroom problems than those with low sense of efficacy. Teachers who were oriented toward control were also likely to believe that extrinsic rewards are important factors in motivating students. Earlier findings noted by Woolfork and Wayne (1990), however, challenge the findings of the present study.

Woolfolk and Wayne (1990) demonstrated a nonsignificant relationship between motivational orientation and dimensions of teaching efficacy. An apparent lack of uniformity in the observed findings might arise due to variations in the study sample. Unlike the subjects in the present study, Woolfolk and Wayne's subjects were predominantly in the elementary certification program. Seen from this angle the present finding which suggests that teaching efficacy was significantly correlated with motivational orientation is hardly surprising.

Results of the correlation analysis further demonstrated a significant relationship between pupil control ideology and motivational orientation. A similar finding was reported by Woolfolk and Wayne (1990).

Teaching Efficacy and Personal Efficacy as Predictors of Classroom Control Variables

The result of multiple-regression analysis revealed that both teaching efficacy and the interaction of teaching and personal efficacy made a unique contribution to the prediction of pupil control ideology. The regression analysis indicated that prospective teachers with high teaching efficacy are more humanistic in their pupil control ideology than those with low teaching efficacy. Inspection of the interaction shown in Figure 1 reveals that when teachers are high in teaching efficacy (i.e., when they are high in personal efficacy) they are more humanistic than those with low personal efficacy. However, when teachers are low in teaching efficacy, (when they are low in personal efficacy) they are more humanistic than teachers with high personal efficacy. Thus prospective teachers with high teaching efficacy are more humanistic in their pupil control ideology than those with low teaching efficacy. However, the relationship exists only among those teachers who also have high personal efficacy, that is, only among those who have the ability to make a difference in student achievement and performance. A similar finding was reported by previous researchers (Woolfolk and Wayne, 1990).

The multiple-regression analysis, however, revealed that personal efficacy alone made no unique contribution to the prediction of classroom control variables. In response to the uncertainty of prospective teachers to influence students' learning, McDiarmid et al. (cited in Abiy, 2002) noted that prospective teachers usually tend to believe that they were not taught essential skills of classroom management regardless of whether or not they were exposed to such knowledge. They further noted that the rationale for this is that prospective teachers do not see the relevance of what they are taught, as there is no immediate requirement of the knowledge when they are in the typical four-year program. In another case, given the

four year education program, it is too distressing to find prospective teachers having only two-three weeks exposure to the actual teaching-learning situation in their four years stay. These teachers have little preparation for the different concerns and issues that the new social context presents. Teachers may develop a feeling of inadequacy when they realize that they do not have the knowledge or skills to deal with the situation they face.

Research in the local context has supported this assertion (Abiy, 2002; Dawit and Alemayehu, 2001). For example, Abiy (2002) emphasized that prospective teachers' competency and beliefs had no significant relations with their teaching confidence and teaching performance in teaching practice. The rationale for this, Abiy explained, is that many of the prospective teachers may have been trained with theoretical knowledge. They lacked adequate teaching practice and language command. Thus teacher educators have to examine the extent to which their courses promote the teaching competence of prospective teachers (Dawit and Alemayehu, 2001). An equally important thing to influence teacher's sense of personal efficacy is the need to provide prospective teachers with the opportunity to practice the science of teaching and learning, through, for example, using peer teaching and allowing students to teach in real classroom situation.

The result of the regression analysis also identified a significant effect for teaching efficacy and a significant interaction effect for teaching and personal efficacy on motivational orientation. Inspection of the regression analysis indicated that prospective teachers with high teaching efficacy are more autonomous than teachers with low sense of teaching efficacy. A significant interaction was also identified by the regression analysis. The interaction effect shown in Figure 2 revealed that when teachers are high in teaching efficacy, those with high personal efficacy are more autonomous than those with low personal

efficacy. However, when teachers are low in teaching efficacy, the pattern is reversed; i.e. teachers with low personal efficacy are more autonomous than teachers with high personal efficacy.

Although the current study demonstrated the effects of teaching efficacy and the interactive effects of teaching and personal efficacy on pupil control ideology and motivational orientation, it is theoretically untenable to believe that understanding these relationships per se could provide insight into the nature of efficacy and other beliefs associated with it. Thus, prospective teachers who accept the power of the school to overcome the influence of home and background factors tend also to be effective teachers and loyal members of the school. Holding all these beliefs may enable prospective teachers to be more efficacious, humanistic, loyal, and autonomous. Supporting this assertion Woolfolk et al. (1989) emphasized that the belief that one will be effective, humanistic, autonomous, and comfortable in the real setting of the school is part of the optimistic and idealistic view of learning. On the other hand, prospective teachers who expect to be less effective in teaching already anticipate some amount of alienation from the school in which they will experience their ineffectiveness (Hermanowicz, 1996). Thus the results of the study suggested that teachers who are properly trained to deal with individuality of each student in the classroom and those who are supported by their principals are likely to develop the belief that they can solve teaching problems and help students to learn. The study also suggested that teachers who develop collegial relations with their fellow teachers, and who work cooperatively with parents are likely to develop the belief that they can solve teaching problems and help students to learn. Prospective teachers should be prepared to deal with student failure and the uncertainty they feel about whether or not they are having an effect on student learning. Prospective teachers need to learn how to analyze the specific aspects of their teaching so that they can identify the sources of their sense of inefficiency. These skills

could help them solve problems and prevent them from developing a sense of helplessness.

Indeed, there are difficulties in influencing teachers' sense of efficacy simply by the typical four-year program. From this point of view adequate preparation in such areas as curriculum models and theories, small-group processes, different instructional strategies, parent /professional relations, and self-awareness are perhaps the most powerful vehicles for change.

The present study has some other specific implications for enhancing teachers' sense of efficacy and continuing to develop their teaching skills and maintain their enthusiasm for teaching during the formative pre-service and early in-service years:

1. Prospective teachers should be trained to deal with a wide range of experiences in different social contexts such as training with skills and opportunities to interact effectively with parents and colleagues.
2. Ways should be sought to develop school programs to help beginning teachers understand better such factors as the abrupt transition from student teaching to full-time classroom instruction. The transition entails new responsibilities, the assumption of multiple roles, and the development of collegial relationships. These skills could help prospective teachers to learn how they can maintain their enthusiasm and commitment to teaching.
3. Schools should show concerns about the professional development of teachers. One approach to professional development is to foster collegial relationships so that teachers learn to work together rather than individually in improving their teaching skills. Also, schools should encourage collegial approaches to personal and organizational problem solving.

4. To enhance self-efficacy, principles of classroom management should provide teachers with a great deal of guidance about how to maintain order in the classroom in ways consistent with school policies. It is, therefore, important for principals to consider how they can transform the impersonal, bureaucratic school into an organization with shared goals and responsibilities for decision making in order to positively affect teachers' sense of efficacy.

5. Schools should provide teachers with accurate feedback on their performance. They should also analyze teachers' personal efficacy and teaching efficacy in order to determine needs of various teachers and design appropriate intervention programs based on efficacy.

6. Finally, the study on prospective teachers' sense of efficacy and beliefs about classroom management has covered only a limited area of the higher education institutions in the country. Thus a further study that covers a wider area is recommended to give us a more in-depth insight into the issues raised in this study.

References

Abiy, Y. (2002). Competency beliefs, teaching confidence, and teaching performances of English major graduating students in teaching practice. **The Ethiopian Journal of Education**, XXII, 85-109.

Amore, D. J., Conry-Oseguera, P., Cox, M. A., King, N., Mcdonnell, L.M., Pascal, A.H., Pauly, E., Zellman, G., Summer, G.C., and Thompson, V.M. (1976). **Analysis of The School Preferred Reading Program in Selected Los Angeles Minority School .** Santa Monica, CA: Rand.

Ashton, P. T., and Webb, R.B (1986). **Making a Difference: Teacher's Sense of Efficacy and Student Achievement.** New York: Longman.

Ashton, P., Webb, R. and Doda, C. (1983) **A Study of Teacher Sense of Efficacy (Final Report, Executive Summary).** Gainesville: University of Florida.

Barfield, V., and Burlingame, M. (1974). The pupil control ideology of teachers in selected schools. **The Journal of Experimental Education**, 42, 6-11.

Berman, P., and McLaughlin, M. (1977**). Federal Programs Supporting Educational Change, Vol.II**: **Factors affecting implementation and continuation**. Santa Monica, CA: Rand Corporation.

Berman, P., Mclaughin, M., Bass, G., Pauly, E., and Zellman,G. (1977). **Federal Programs Supporting Educational Change (Vol.7): Factors Affecting Implementation and Continuation.** Santa Monica, CA: Rand Corporation.

Bllau, P. M., and Scott, W. R. (1962). **Formal Organizations: A Comparative Approach.** San Francisco: Vhandiler.

Bluming, M. and Dembo, M. (1973). **Solving Teaching Problems: A Guide For the Elementary School Teacher**. Santa Monica, CA: Goodyear.

Brookover, W., Schweitzer, J., Schneider, J., Beady, C., Flood, P., and Wisenbaker, J. (1978). Elementary school social climate and school achievement. **American Educational Research Journal**, 15,301-318.

Curwin, R. and Mendler, A. (1989). We repeat, let the buyer beware: A response to Canter. **Educational Leadership**, 46,83.

Dawit M. and Alemayehu B. (2001). Preservice teachers' perception towards professional courses and efficacy of subject methodology courses in developing pedagogical content knowledge. **The Ethiopian Journal of Education**, XXI, 21-60.

Deci, E. L. (1975). **Intrinsic Motivation.** New York: Plenum.

Deci, E. L., Schwartz, A. I., Sheniman, L., and Ryan. R.M. (1981). An instrument to assess adults' orientation toward control versus autonomy with children: Reflections on intrinsic motivation and perceived competence. **Journal of Educational Psychology**, 73,462-650.

Dembo, M. (1994). **Applying Educational Psychology.** New York: Longman Publishing Group.

Dembo, M. and Gibson, S. (1985). Teachers' sense of efficacy. An important factor in school improvement. **Elementary School Journal**, 86, 173-184.

Doyle, W. (1986). Classroom Organization and Management. In M. Wittrock (Ed.), **Handbook of Research on Teaching** (3rd ed.) New York: MaCmillan.

Fromm,E. (1948). **Man For Himself**. New York: Farrar and Rinhart.

Fuller, B., and Izu, J. A. (1986). Explaining school cohesion: What shapes the organizational beliefs of teachers? **American Journal of Education,** 94, 501-535.

Fuller, F., and Brown, O. (1975). Becoming A Teacher. In K. Ryan (Ed.), **The 74th Yearbook of the National Society for the Study of Education** (Part 2). Chicago: University of Chicago Press.

Gibson, S. and Dembo, M. (1964). Teacher efficacy: A construct validation. **Journal of Educational Psychology,** 76(4), 569-582.

Good, T. (1981). Teacher expectations and student perceptions: A decade of research. **Educational Leadership**, 38, 415-422.

Guskey, T. R (1988). Teacher efficacy, self-concept, and attitudes towards the implementation of instructional innovation. **Teaching and Teacher Education.** 4,63-69.

Hoy, W. (1967) Organizational socialization and student - teacher and pupil control ideology. **Journal of Educational Research** 61, 153-255.

Hoy, W.K. and Rees, R. (1977). The Bureaucratic socialization of student teachers. **Journal of Teacher Education,** 28,279-300.

Midjely, C., Feldlaufer, H., and Eccles, J (1988). Transition to junior high school:Beliefs of pre- and post transition teachers. **Journal of Youth and Adolescence** 17,543-562.

Nachtscheim, N. M., and Hoy, W. A. (1976). Authoritarian personality and control ideologies of teachers. **Alberta Journal of Education Research**. 22,173-178.

Rosenholtz, S. (1989). Workplace conditions that affect teacher quality and commitment: Implications for teacher induction programs. **Elementary School Journal** 89,421-439.

Rosenshine, B. (1979). Content, Time and Direct Instruction, In Peterson, P. and Walberg, A. (Eds.), **Research on teaching: Concepts, findings and implications**. Berkeley, CA: McCutchan.

Show, M. E. and Wright, J. M. (1967). **Scales of The Measurement of Attitudes.** New York: McGraww-Hill.

Smylie, M. A (1998). The enhancement function of staff development: Organizational and psychological antecedents to individual teacher change. **American Educational Research Journal** 25, 1-30.

Veenman, S. (1984) Perceived problems of beginning teachers: **Review of Educational Research.** 54, 143-178.

Willower, D. J., Eidell, T. L., and Howy, W. K. (1967). **The School and Pupil Control Ideology**. University Park: Pennsylvania State University.

Woolfolk, A. E., Rosoff, B., and How, W. K. (1989). **Efficacy Beliefs and Motivational Orientations of Teachers. Paper Presented at the Annual Meeting of the American Educational Research Association**. San Francisco.

Woolfolk, A. E, and Wayne, K. H. (1990) Prospective teachers' sense of efficacy and beliefs about control. **Journal of Educational Psychology**, 82,81-91.