



Relationship between classroom management belief and academic optimism: The case of secondary school teachers in central zone of Tigray, Ethiopia

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Abstract

The purpose of this study was to examine the relationship between Classroom Management Belief (PCI) and Academic Optimism among teachers in government secondary schools (9 & 10 grades) of central zone of Tigray, Ethiopia. The study was descriptive survey design and employed quantitative approach. By using a self-response questionnaire, data were collected from a sample size of 540 (216 female and 324 male) teachers drawn from a target population of 1789 (1324 males and 465 females) selected through Multi-stage probability sampling technique. Data were analysed by using Pearson bivariate correlation. Significant positive relationship was revealed between the teacher's classroom management belief and academic optimism. The sub-scales of academic optimism (self-efficacy, trust, academic emphasis) were also appeared to have significant relationship with classroom management belief (PCI). Above half of the teachers were found to experience unfavourable sense of academic optimism. Finally, based on the findings, proper conclusions supported with the implied recommendations were forwarded.

Keywords: academic optimism, classroom management belief, teachers, secondary school

Introduction

In the early 1970s, researchers in educational psychology began to look beyond focusing exclusively on teachers and students' observable actions and started to question, "How teachers understand their work and the thought processes, judgments, and decisions that their work involves" (Calderhead, J., 1996) [2]. Subsequently, as researchers investigated the impact of teachers' thought processes on student achievement, cognitive approaches to educational psychology appeared. In particular, researchers have asserted the significant effect of teachers' beliefs on student achievement (Weinstein, Gregory, & Stambler, 2004) [13]; and then affirmed to be a powerful force in classrooms practices (Woolfolk Hoy, Davis, & Pape, 2006) [8]. In congruent to the notion of teachers' beliefs, teachers' sense of academic optimism, which is a relatively new concept emerging from the empirical and theoretical research on positive psychology, optimism, and social cognitive theory, has recently attracted more attention and found to be an important school and individual variable in improving students' achievements (Hoy, Tarter, & Woolfolk Hoy, 2006; Anderson, 2012; Beard *et al.*, 2010) [8, 1].

At the individual level, academic optimism is understood as a latent teacher construct comprising of three sub-constructs: 'academic emphases, 'self-efficacy', 'trust in parents and students'. The present study focuses on investigating academic optimism as a teacher variable. Hence, in this study, academic optimism is understood as a teacher's positive belief to make a difference in the academic performance of students by emphasizing academics and learning, by trusting parents and students to cooperate in the process, and by believing in his/her own capacity to overcome difficulties and react to

failure with resilience and perseverance (Hoy, Hoy, & Kurz, 2007).

Classroom management is a multi-faceted concept that includes the organization of the physical environment, the establishment of rules and routines, the development of effective relationships, and the prevention of and response to misbehaviour. Teacher beliefs have been operationalized in many ways, but are most often defined in terms of what teachers implicitly assume to be true of students, classroom environments, course content, and the process of learning in general (Kagan, D., 1992) [10]. According to Fries & Cochran-Smith (2006), discipline methods and practices is a complex issue that may be determined by many factors, with teacher ideologies playing a critical role. There is an extensive work on the connection between teachers' personal ideologies and practices, especially with reference to classroom management (for instance, Barratt, 1994; Ikejaiku, 2000; Solomon, Battistich, & Hom, 1996) [9, 12]; and a widely accepted classification of teachers' classroom management beliefs appeared to have two distinct orientations (Hoy, 1969) [6] ranging along continuum of (a) custodial ideology to (b) humanistic ideology. On the teacher-directed end of the spectrum is a custodial orientation; and on the progressive end of the spectrum of teacher beliefs is a humanistic (student-centred) orientation (Hoy, 1967; Hoy, 1968; Hoy & Woolfolk, 1990). Presumably, teacher beliefs and their corresponding practices fall somewhere along the spectrum between custodial and humanistic orientations, with philosophies for some educators falling on the extreme ends.

Humanistic classroom environments are ones in which students are viewed as responsible, self-regulating members of the classroom. According to (Hoy, 2001) [7], humanistic

teachers see their classroom as one that fosters interpersonal relationships; consequently, they encourage students to become self-disciplined and self-regulated; and more often than not, humanistic orientation is marked by optimism, openness, flexibility, understanding and increased student self-determination. On the contrary, in teacher-entered classrooms (custodial ideology), control is of primary importance and “authority is transmitted hierarchically” (Dollard & Christensen, 1996), meaning the teacher exerts control over the students. Critics of teacher-centeredness argue that in these classrooms, compliance is valued over initiative and passive learners over active learners (Freiberg, 1999). To help teachers maintain control over students, instructional methods that promote a focus on the teacher are frequently used, such as lectures, guided discussions, demonstrations and “cookbook” labs (Edwards, 2004).

The ultimate goal of the study is to contribute knowledge to the enhancement of student learning by understanding how a teacher's belief about controlling students can be related to the teacher's trust of parents and students, the efficacy of the teacher in fostering student learning, and the teacher's emphasis on student achievement. In previous research works, the humanistic manner of the treatment of students was asserted to facilitate desirable outcomes in student learning (Gregory and Cornell, 2009; Willower *et al.*, 1973; and Lunenburg, 1990) [4, 14, 11]; and, similarly, teacher academic optimism has been found to relate to student achievement (Beard, Hoy, & Woolfolk Hoy, 2010) [1]. However, in the area where the current study was conducted, research works of such kind are not common. Thus, in addition to extending the contextual relevance of these teacher's belief constructs, investigating the teachers' academic optimism in relation to their beliefs of classroom management was found appealing to be studied so as to contribute more to school effectiveness practices. To this end, the following research questions were framed to be addressed.

Research Questions

1. What is the status of the Teachers on the variables: Sense of Academic Optimism, and Classroom management belief?
2. Is there significant relationship between the teacher's level of classroom management belief (PCI) and sense of academic optimism?
3. Does the teacher's classroom management belief significantly relate with each of the three facets of academic optimism: teacher self-efficacy, trust, and academic emphasis?

Hypothesis 1: There is statistically significant ($p < .05$) relationship between the teachers' classroom management belief and sense of academic optimism.

Hypothesis 2: Teacher's Classroom Management Belief is significantly ($p < .05$) related with each of the three facets of academic optimism: teacher self-efficacy, trust, and academic emphasis?

Research Methods

Research Design

The study was descriptive survey design represented by quantitative approach. Since the study was conducted in a

relatively large sample size, descriptive survey design was considered appropriate.

Participants (Sample)

All government general secondary school (grade 9 & 10) teachers in the central zone of Tigray regional state, Ethiopia were the target population of the present study. The target population encompasses teachers working in 38 schools in 12 Districts (Woredas) found in one province (Zone) which consisted of 1789 (1324 males and 465 females) teachers. To maximize confidence in generalizing findings, the researcher decided to take more sample size. So, cognizant to the types of statistical analysis planned to be used, and to minimize the risk of response rate, the researchers decided to take 560 teachers of sample size (31.3% of the target population) just by relying on the recommendation of scholars in the area.

Sampling techniques and selection procedure

To draw the representative sample subjects, a multi-stage probability sampling technique was employed. So, subjects were selected by following the following guiding procedures. First, the 12 districts (woredas) were taken as strata from which sample teachers were to be drawn proportionally so as to maximize the representativeness to the Zone as a whole. Second, to make the process more manageable, 16 out of 38 schools were selected randomly as clusters from every district (Woreda). In the 16 schools, there were a total of 1125 teachers (821 males and 304 females). Third, to keep better representativeness of male and female teachers, teachers in each of the 16 schools were put in to two categories based on their sex (i.e., stratified sampling technique). Further, to maintain the balance between male and female strata, disproportionate stratified sampling technique was used. Thus, different sampling fractions were considered (48.17% for female and 25.37% for males) a sample population with a composition of 60% males and 40% females teachers. Finally, a total sample size of 560 (336 males and 224 female teachers), were selected from the strata using simple random sampling technique.

Data gathering instruments

Teacher's sense of academic optimism: Previously, “Teacher's sense of academic optimism” was found to be explained by the composite score of three constituting variables: teachers' sense of efficacy, teachers' trust in students and parents, and teachers' academic emphasis. So, to measure this latent variable, these three sub-components of the construct were taken in to account.

Teacher's sense of efficacy: This variable was measured by the short form of the Teacher's Sense of Efficacy Scale (TSES) previously used by Tschannen-Moran, Woolfolk Hoy, & Hoy (2001) [7]. The scale consisted 12-Items on a 9-point scale ranging from very strongly disagree (1) to very strongly agree (9). The Survey items of this scale fall into three subscales: efficacy for management, efficacy for instruction, and efficacy for engagement. In previous researches, the Cronbach's alpha coefficient of reliability for the 12-items form of the TSES ranged from .81 to .91. In the current study, the computed value of Cronbach's alpha coefficient was .96.

The scale's value was interpreted as: the higher the teacher's score, the more efficacious the teacher was labeled to be; and lower the teacher's score signifies the less efficacious the teacher was.

Teacher's sense of trust in students and parents: This variable was measured by T-Scale which is one sub-test from the Omnibus T-Scale (OTS) of (Hoy and Tschannen-Moran 2003), which was also used by (Hoy *et al.*, 2006). For the purpose of this study, the scale items were reworded to allow looking at individual teachers' beliefs. The items on the Trust-scale were 6 and weighed on a 6-point scale ranging from 1 = "strongly disagree" up to 6 = "strongly agree". In previous research works, the reliability of alpha coefficient (Cronbach's alpha) for the Omnibus T-Scale was found to be within the range of .82 to .98. For this study Cronbach's alpha reliability was computed and the value of the coefficient was .96. The score value of the scale was interpreted as: the higher the teacher's score, the more trustful the students and parents were on the part of the teacher; and the lower the teacher's score signifying the opposite.

Teacher's sense of academic emphasis: This variable was determined by a 6 -item scale that was adopted from Hoy, Sweetland, and Smith (2002) which is one sub-test from the Organizational Climate Index (OCI) that specifically focused on achievement press (otherwise known as academic emphasis). The items were scored on a 6-point scale ranging from "strongly disagree" (1) to "strongly agree" (6). In previous researches, the Cronbach's alpha coefficient of reliability for the 6-items of this scale ranges from .6 to .92. The Cronbach's alpha coefficient for the present study was .96. The scale's value was interpreted as the teacher's higher score signifying the teacher's higher emphasis and academic learning tasks; and the lower score to signify less emphasis given by the teacher to academics and learning tasks.

Teacher's Classroom Management Belief (PCI)

To measure the variable 'teacher's classroom management belief', a 20-item Likert-type scale of the Pupil Control Ideology (PCI) of Willower, Eidell, & Hoy (1967) recently used by Gilbert, Michael J. (2012) ^[5] was adopted with necessary modification. This instrument has conceptualized the teachers' beliefs about classroom management along a continuum from custodial to humanistic. The items in the scale were scored on a 6-point scale taking the form, "strongly disagree" (1) to "strongly agree" (6). In the current study, the scale was used to measure the degree to which a teacher's belief in the pupil control ideology is humanistic. Thus, the scale's value was interpreted holding the sense that the higher the score, the more humanistic the ideology; and, conversely, the lower the score, the more custodial the attitude of teachers would be. From previous research works, the reliability of the scale was found to be consistently high--usually .80 to .91. For the present study, the computed Cronbach's alpha coefficient was .96; and, for that matter, the scale's reliability for the internal consistency was maintained.

Data gathering procedure

In collecting the data, permission from the school principals

and consent among the participants was maintained. Then after, the school principals and /or unit leaders were used to supervise the administering and collecting of the questionnaires. One teacher in each school who was not part of sample subjects was used to distribute and collect the questionnaires in accordance to the direction of the researcher and the supervisors as well. By clearly communicating the purpose of the study and not demanding to write their name, an attempt was made to make participants confident that their answers were confidential and only used for the research purpose by the researcher. Since all participants were degree holder and were involved in the teaching-learning process where the medium of instruction was English, the survey instruments were administered using English language.

Data collection was done after securing a reliable and valid instrument through pilot study and professional comments. Then, the task of selecting sample schools and number of participants in each school was undertaken. To this end, the researcher has made preliminary visits to the study areas to get familiarized and create smooth relationship and in turn gain consent from the prospective participants, which was set as a prerequisite for easing the upcoming data collection process. In doing so, the researcher had made discussion with the school principals and /or unit leaders and let them assist in supervising in the process of selecting sample participants, administering the questionnaires, and collecting as well.

Regarding the administration of the questionnaire, first, a list of the total number of teachers was secured from the respective sample schools. Then after, the participants were selected using the aforementioned sampling techniques, the questionnaires were administered, most often in the researcher's or the assistants' presence, in order to clear up any ambiguities that the respondents might have in filling out the questionnaire. Out of the 560 questionnaires distributed among the sample participants, 552 questionnaires were returned back and from these 12 questionnaires were avoided for their incompleteness or inappropriately filled. Finally, 540 (with an average return rate of 96.4%) fully completed questionnaires were considered for the final analysis.

Data analysis techniques

To analyse the data collected from the participants, quantitative data analysis technique was employed by using Statistical packages (SPSS 20/AMOS 22). Thus, frequency, percentages, mean, and Pearson bivariate correlation statistical techniques were used.

Result and Discussion

Once again the major purpose of the current study was examining relationships between teachers' Classroom Management Beliefs (PCI) and Sense of Academic Optimism. Hence, this section reports what has been obtained in the analysis concerning the issue at hand.

Demographic characteristics of the participants

The teachers in the central zone of Tigray regional state, Ethiopia were served as the unit of analysis for the present study. Accordingly, data were collected from 540 teachers of varying demographic characteristics (Gender, age, and teaching experience) and then analysed by using appropriate statistical techniques. Details are summarized in Table 1.

Table 1: Frequency (Percent) distribution of the participants’ demographic data

Characteristic	Category	Frequency	Percentage
Age in Years	<=25	24	4.4%
	[26,35]	212	39.3%
	[36, 45]	158	29.3%
	>45	146	27.0%
Teaching Experience in Years	<=5	61	13.3%
	[6, 10]	155	28.7%
	[11, 15]	166	30.7%
	> 15	158	29.3%
Education Level	All Degree holders	540	100%
Gender	Female	216	40.0%
	Male	324	60.0%

The teachers’ status on academic optimism and classroom management beliefs

In the current study, the teachers’ status based on the beliefs they held regarding Academic Optimism, and Classroom management (custodial to humanistic) were disclosed as presented in Table 2 & Table 3 respectively. In this regard, to address the research question, the scales were first converted in to levels (High, Medium, and Low) based on the concept of Normal Distribution. As a result, those whose score fall in the range from one standard deviation (1SD) away the mean and above in the scale were labelled ‘High’, those whose scores ranged from the mean value up to 1SD above the mean were labelled ‘Medium’; and those who scored below the mean value of the scale were labelled ‘Low’.

Table 2: Frequency/percentage distribution of the teachers across the levels of academic optimism scale

Variable	Scale Levels	Frequency/Percentage	Sex		Total
			Female	Male	
Academic Optimism	High	Frequency	39	38	77
		% of Total	7.2	7.1	14.3
	Medium	Frequency	78	109	187
		% of Total	14.4	20.2	34.6
	Low	Frequency	99	177	276
		% of Total	18.3	32.8	51.1
Total		Frequency	216	324	540
		Percentage	40.0	60.0	100.0

Table 2 above presents the distribution of the teachers across the levels of the ‘Teacher’s Sense of Academic Optimism scale’. As per these data, most (51.1%) teachers were found to fall within the “low” level of the scale. Relatively small (14.3%) proportion of the teachers were found to have scores falling with in the 84th percentile and above. In other word, they have obtained score values falling in the range of 1SD away the mean and above. The remaining 34.6% of the teachers obtained score values within the “Medium” level of the scale. In addition, as it can be deduced from the data in Table 2, the result revealed that 48.9% of the teachers got average and above score values in the levels of academic optimism scale; but, with majority of the teachers confined below 1SD above the mean. That is, higher proportion of the teachers belong to the “Medium” whereas small proportion to

the “High” category of the scale. Slightly above half of the teachers were observed to have been experiencing unfavourable sense of academic optimism. Thus, generally speaking, the teachers’ sense of academic optimism is low. In other words, the teachers’ self-referent positive beliefs to make a difference in the academic performance of students by emphasizing academics and learning, by trusting parents and students to cooperate in the process, and by believing in their own capacity to overcome difficulties and react to failure with resilience and perseverance is not adequate. Fortunately, academic optimism is an individual variable that can be learned and developed (Seligman, 2006). This appeals for educational leaders to work more in creating school environment the flourish teachers’ sense of academic optimism.

Table 3: Frequency/percentage distribution of the teachers across the levels of classroom management belief scale: Custodial to humanistic

Variable	Scale Levels	Frequency/Percentage	Sex		Total
			Female	Male	
Classroom Management Belief	High	Frequency	7	9	16
		% of Total	1.3	1.7	3.0
	Medium	Frequency	135	224	359
		% of Total	25.0	41.5	66.5
	Low	Frequency	74	91	165
		% of Total	13.7	16.8	30.5
Total		Frequency	216	324	540
		% of Total	40.0	60.0	100.0

Table 3 presents the distribution of teachers across the levels of ‘Classroom Management Belief Scale’. Regarding this variable, it was intended to look for the extent of beliefs that the teachers held regarding classroom discipline and control practices when viewed in a range of rigid, structured, and

controlling (custodial) to student-centred and flexible (humanistic) perspectives. 66.5% of the teacher were identified falling with in the “Medium” level and very small proportion (3.00%) with in the “High” level of scale. the remaining teachers took the second higher proportion (30.5%)

and were found to score with in the “Low” category of the scale. The ‘classroom management belief scale’ was a continuum with low score in the dimension designating more custodial belief and high score signifying more humanistic perspectives beliefs. Accordingly, the result shown that 69.5% of the teachers’ status was seen to be represented by the humanistic dimension and the remaining 30.5% teachers were found to fall within the custodial dimension of the scale.

Therefore, the current study revealed that the majority of teachers were found holding beliefs in favour of humanistic classroom practices. In other word, this teachers were observed having favourable tendency to the flexible classroom management practices centring on the students’ needs and interest. Conversely, the remaining proportion of teachers, of course took relatively considerable share, were found holding beliefs in favour of custodial classroom management practices, characterized with rigid, structured, and controlling perspectives.

Descriptive statistics of the measures

Table 4 presents the descriptive scores of the teachers as measured by academic optimism scale, classroom management belief (PCI) scale, and the sub-scales of academic optimism: sense of efficacy, academic emphasis, trust in students and parents. Accordingly, the Teachers’ scored slightly above average in the respective dimensions of academic optimism scale. Self-efficacy (M = 71.05, &SD = 12.70), Academic emphasis (M = 24.95, & SD = 3.49), and trust in students and parents (M = 24.47, & SD = 3.71). Although the teachers’ scored above average in the three sub-scales of academic optimism, in all case, the scores were found to fall below the 64th percentile point of the respective scale values. Similarly, the teachers’ level of classroom management belief was scored and found to fall above average of the scale value (M = 76.87, & SD = 14.06), which is below 57th percentile point of the scale value.

Table 4: Descriptive statistics for the teachers’ classroom management belief and academic optimism (N =540)

Variables	Minimum	Maximum	Mean	SD
Sense of efficacy	36	108	71.05	12.70
Trust in Parents and Students	14	36	24.47	3.71
Academic Emphasis	14	35	24.95	3.49
Sense of Academic Optimism	21.21	79.64	50	9.04
Classroom Management Belief	35	117	76.87	14.06

Result for the correlation analysis

To test what was stated in ‘Research question 2’, it was hypothesized as “There is statistically significant relationship between the teachers’ classroom management belief and sense of academic optimism.” Preliminary analyses were performed by visual inspection of scatter plot distribution of the variable of interest and, reasonably, no violation of the assumptions of linearity, and homoscedasticity was ensured.

Table 5: Pearson correlation result for teacher’s classroom management belief (PCI) and academic optimism along with its sub-scale (N =540)

Variables	Classroom Management Belief (PCI)
Sense of efficacy	.574***
Trust in Parents and Students	.651***
Academic Emphasis	.646***
Sense of Academic Optimism	.690***

Note: *** p < .001

As depicted in Table 5, when Cohen (1988) suggestion regarding strength of relationship is considered, large correlation coefficients were appeared between the variables of the study. Specifically, the result revealed that there was statistically significant relationship between the ‘Teacher’s Sense of Academic optimism’ and ‘Teacher’s Classroom management Belief’(r = .690, p<.001). Further, Teacher’s Classroom management Belief’ was found to have strong positive correlation with all the sub-scales of Academic Optimism. Specifically, the Teacher’s classroom management belief was observed to have statistically significant positive relation with sense of efficacy(r = .574, p<.001), Trust in parents and students(r = .651, p<.001), and Academic

emphasis(r = .646, p<.001). Therefore, the hypothesis claiming for the presence of significant positive relationship was proved to be true.

This result indicates that there tends to be a relationship between a teacher being more humanistic in the control of students and a higher level of academic optimism. Statistically, 47.6% of the variance in the teacher’s sense of academic optimism is explained by the teacher’s extent of belief in the classroom management approach ranging from custodial (lower in the continuum) to humanistic (higher in the continuum). The relationship of the classroom management belief with each sub-scales of the academic optimism also indicated the positive contribution of self-efficacy, trust, and academic emphasis to the positive relations appeared between academic optimism and classroom management belief.

The finding of the present study concerning the presence of relationship of academic optimism with classroom management belief is in harmony with research findings reported by Woolfolk Hoy, et.al, (2008) in their study of the predictors of academic optimism which revealed significant positive relationship of academic optimism with humanistic classroom management belief. In addition, the present finding is also supplemented by a research finding demonstrating the presence of significant positive relationship between teachers’ classroom management belief and academic optimism, reported by Gilbert, Michael J., (2012) [5].

Conclusion and Recommendation

Conclusion

- Since slightly above half of the teachers were observed to have been experiencing unfavourable sense of academic optimism, generally speaking, teacher’s sense of academic optimism is low.

- By knowing where a teacher falls on the spectrum of classroom management belief scale (PCI), it would be possible to estimate the level of positive belief that the teacher hold regarding one's capability, students' ability to learn, and to establish trusting relationship with students and parents. So, to enhance the teachers' level of academic optimism, looking in to the teachers' level of belief on the classroom management orientation ranging from custodial to humanistic and then applying appropriate intervention mechanism is one option among others.
- The result indicated that a more humanistic approach to managing a class has a correlation with an optimistic view of learning. So, Classroom management Belief (PCI) can be identified as a component of one's beliefs and behaviour system that impacts academic optimism.

Recommendation

- It would be a good lesson for education leaders to pay attention to the teachers' pattern of interaction (controlling and disciplining) with their students in order to estimate the level of classroom management beliefs these teachers hold and thereby work in programs that enhance the favourable existence of the desired beliefs.
- It would be nice for school leaders to establish a school environment with teachers who value a classroom climate of active interaction and communication, close personal relationships with students, mutual respect, positive attitudes, and flexibility of rules, self-discipline & self-regulated students, and self-determination among students. So, trainings pertinent to the enhancement of such beliefs should be provided.
- Moreover, it would be valuable to conduct similar research by including qualitative approach. For instance, including teachers' perceptions of relationships among these variables would provide greater insight into defining antecedents and outcomes, and looking in to the sources of these sorts of beliefs.
- Further, in the context where this study was conducted, research works linking the constructs of this study with students' motivational constructs and academic performance are highly recommended

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