The Effect of Teachers' Beliefs and Sense of Self-Efficacy on Iranian EFL Learners' Satisfaction and Academic Achievement

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Abstract

The purpose of this study was to investigate the relationship between teachers' beliefs about their teaching methods and their sense of self-efficacy. The study also examined the effects of these characteristics on students' satisfaction and academic achievement. Participants included 16 instructors and 255 intermediate students (121 males and 127 females), at the Bahar Language Institute in Shiraz, Iran. The Teacher Belief Scale and Bandura Teacher Self-Efficacy Scale (Wilkerson & Lang, 2007), the truncated form of student satisfaction inventory, and students' standardized midterm exam scores were the instruments for data collection. Using Pearson correlation and multiple regressions, it was concluded that there was a significant negative correlation between teachers' beliefs and students' satisfaction. Moreover, a small positive correlation between teachers' sense of self-efficacy and student satisfaction was found. The regression model between teachers' beliefs, as well as the subcategories of teachers' self-efficacy and students' satisfaction, showed that teachers' beliefs could significantly contribute to the prediction of students' satisfaction. Among the self-efficacy subscales, discipline, decision-making, instruction, and school resources significantly contributed to the prediction of the dependent variables. Finally, it was concluded that the students' satisfaction and their academic achievement were highly correlated. In addition, "being considerate", among the subscales of students' satisfaction, had the greatest potential to predict students' achievement.

Keywords: Teachers' beliefs, self-efficacy, satisfaction, academic achievement.

Introduction

The study of teachers' beliefs has emerged as a major area of scholarship in the field of language teaching over the last 15 years. According to Calderhead (1996), teachers' beliefs are important mediators of teacher behavior, although Pajares (1992) reminds us that the relationship between teachers' beliefs and teachers' behaviour is far from clear as teachers' beliefs are "messy constructs" that have different interpretations and meanings (p. 307). Other scholars provide a more integrated view of the concept. Clark and Peterson (1986), Kagan (1992), and Pajares (1992) define teachers' beliefs as teachers' assumptions that affect what they notice in any set of circumstances and regard as possible, the goals they set, and the knowledge they bring to those circumstances. Artzt and Armour-Thomas (1998) define teacher's beliefs as ''an integrated system of personalized assumptions about the nature of a subject, its teaching and learning'' (p. 8).

The other factor that seems to affect language teaching is teachers' sense of self-efficacy. Bandura (1986, 1997) refers to self-efficacy as the belief about one's capabilities to learn or perform behaviors at designated levels. As Pajares (1992) notes, the concept of teacher's sense of self-efficacy has earned much scholarly attention in recent years. In the two decades since the notion of teacher efficacy was first introduced, scholars have highlighted the importance of this construct in educational contexts.

Self-efficacy is also said to have a measure of control over an individual's thoughts, feelings, and actions. In other words, the beliefs that individuals hold about their abilities and the outcome of their efforts influence the way they behave. It is not surprising, therefore, that Pajares (1996) and Schunk (1995) show that self-efficacy influences academic achievement, motivation, and learning (Pajares, 1996; Schunk, 1995). Based on the findings of these studies, it can be concluded that individuals who possess a high degree of self-efficacy are more likely to attempt challenging tasks, persist longer at them, and exert more effort in the process.

Self-efficacy is grounded within a larger theoretical framework of social cognitive theory, which states that human achievement and functioning depend on interactions among one's behaviors, personal factors (e.g., cognitions, emotions), and environmental conditions (Bandura, 1986, 1997). According to Goddard, Hoy, and Woolfolk Hoy (2000), reciprocal causation is a multi-directional model, which suggests that our actions result in future behavior as a function of three interrelated forces: environmental influences, our behavior, and internal personal factors such as cognitive, affective, and biological processes. Self-efficacy can also help determine how much effort, perseverance, and resilience is put into a task; the higher the sense of efficacy, the greater the effort, persistence and resilience. Bandura (1997) and Schunk (1995) state that self-efficacy is hypothesized to affect individuals' task choices, effort, persistence, and achievement.

Bandura (1997) suggests that four factors determine self-efficacy: "enactive mastery experience, vicarious experience, verbal persuasion, and physiological and emotional states" (p. 195). The most influential of these factors is enactive mastery experience, which refers to individuals' experiences with success or failure in past situations. In a vicarious experience, individuals compare themselves to their peers;

watching their peers succeed raises their observer self-efficacy, while seeing their peers fail lowers it. Verbal persuasion tries to convince individuals who may doubt their capabilities that they possess the skills needed for success at a given task. In education, verbal persuasion delivered by teachers often takes the form of verbal feedback, evaluation, and encouragement. Physiological state implies that failure, or some degree of performance impairment, can result if a person fearing failure is in a hyperactive state (Bandura, 1986, 1997). In addition to the four factors that determine general self-efficacy, Smist and Owen (1994) found that aptitude, attitudes toward science, and specific attributions for success can predict science self-efficacy.

Among the factors that influence students' performance is students' satisfaction with their teachers' method of teaching, which is the focus of the present study. The Oxford Dictionary (2007) defines satisfaction as "the state of being content." In an academic context, satisfaction refers to a feeling of adequacy that the students experience through their interaction with school environment. Thus, satisfaction can be defined as the willingness to continue the learning process because the personal needs and expectations are fulfilled in the school environment. Astin (1993) defines satisfaction as the student's perception pertaining to the college experience and perceived value of the education received while attending an educational institution.

College administrators and faculty are becoming more interested in student satisfaction because satisfied students are more likely to persist in school and show better academic performance. Guild (as cited in Keri, 2000) identified salient indicators that are effective for improving instruction and learning. He names satisfaction as a factor that affects learning, and teachers' thinking style, and teaching method as factors that affect satisfaction. Miglietti and Strange (as reported in Keri, 2000) examined teaching and learning styles and classroom environment variables. They found that student-centered instruction positively impacted students' learning and satisfaction regardless of their age. Keri (2000) also suggests that the dynamics of teaching and learning styles seem to be the mainstay of student satisfaction.

The foreign language teaching and learning process is complicated and multi-faceted, and several factors affect teaching and learning. This study investigated the relationship between teachers' beliefs about their teaching methods and sense of self-efficacy and the effect of these on students' satisfaction. The study also investigated the effects of students' satisfaction, if any, on their academic achievement. The study was guided by the following questions:

1. Is there any relationship between teachers' beliefs about their method of teaching and their sense of self-efficacy with students' satisfaction?
2. To what extent do the teachers' beliefs and their sense of self efficacy affect the students' degree of satisfaction?
3. Does the students' satisfaction positively affect their academic achievements?

Literature Review

Teachers' Beliefs

In his review of literature, Pajares (1992) discusses the importance of teachers' beliefs and highlighted the work of several scholars (Bandura, 1986; Cole, 1989; Nisbett & Ross, 1980; Pintrich, 1990; Rokeach, 1968), who support the notion that examinations of beliefs are the "best indicators of the decisions individuals make throughout their lives" (p. 307). Pajares (1992) discusses 16 "fundamental assumptions that may reasonably be made when initiating a study of teacher's education beliefs" (p. 324). These assumptions presume that beliefs are formed early and tend to self-perpetuate, are instrumental in defining tasks and selecting the cognitive tools with which to interpret, plan, and make decisions regarding such tasks, and that individuals' beliefs strongly affect their behavior. In this way, knowledge and beliefs are inextricably intertwined (Pajares, 1992).

Phipps and Borg (2009) maintain that teachers' beliefs about teaching and learning may be positively or negatively influenced by their own experiences as learners; these beliefs are well-established by the time students go to university (Holt Reynolds, 1992; Lortie, 1975). Moreover, Phipps and Borg (2009) mention that beliefs can act as a filter through which teachers interpret new information and experiences (Pajares, 1992). This point may outweigh the effects of teacher education (Kagan, 1992; Richardson, 1996) in influencing what teachers do in the classroom because teachers' belief can exert a persistent long-term influence on teachers' instructional practices (Crawley & Salyer, 1995, Johnson 1992, as cited in Borg, 1999; Cheng, Chan, Tang, & Cheng 2009). At the same time, teachers' beliefs are not always reflected in what teachers do in the classroom (Isikoglu, Basturk & Karaca 2009), and it affects teachers' decision making, (Nunan 1992 as reported in Borg, 1999; Smith 1996 as cited in Borg, 2006).

In addition, changing teachers' curriculum orientation depends heavily on changes in teachers' beliefs (Beck, Czerniak, & Lumpe, 2000; Minor, Onwuegbuzie, Witcher, & Williams, 2002; Prawat, 1992 as cited in Isikoglu et al., 2009). Research has shown that teachers' instructional practices are closely influenced by their curricular or pedagogical beliefs (Minor et al., 2002; Pajares, 1992; Hasweh 2003, as cited in Isikoglu et al., 2009).

Teacher Efficacy

"Teacher efficacy has been identified as a variable accounting for individual differences in teaching effectiveness" (Gibson & Dembo, 1984, p. 569) and has a strong relationship to student learning and achievement (Allinder, 1995; Gibson & Dembo, 1984; Huinker, & Madison, 1997). Berman et al. (1977) reported that based on a research by Denham & Michael (1981), teacher efficacy had the strongest relationships with student learning gains, with a standardized regression coefficient of .21 for sense of efficacy with improvement in student achievement as the dependent variable.

Empirical research has focused on the relationship between this construct and student achievement. Tschannen-Moran and Woolfolk Hoy (2001) examined teacher efficacy and its direct influence on student performance, specifically student achievement in reading, language arts, and math. The results revealed a strong correlation with high teacher efficacy and high student scores in reading. The results also showed that high efficacy teachers spent more time in whole-group instruction than in small-group instruction. This shows the effects of self-esteem.

Ross (1992) considered relationships between student achievement (knowledge and cognitive skill), teacher efficacy, and interactions with assigned coaches (self-report measures). Ross (1994, as cited in Hoy, 2004) also reviewed 88 teacher efficacy studies in pre-college settings and identified potential links between teachers' sense of efficacy and their behaviors. Ross suggested that teachers with higher levels of efficacy are more likely to learn and use new approaches and strategies for teaching, use management techniques that enhance student autonomy, provide special assistance to low achieving students, build students' self-perceptions of their academic skills, set attainable goals, and persist in the face of student failure.

Studies of teacher efficacy have revealed its relationship to teachers' effort (Stein & Wang, 1988), enthusiasm for teaching (Allinder, 1995), goals and persistence (Tschannen-Moran, Woolfolk, & Hoy, 1998), commitment to students and teaching (Coladarci, 1992; Evans & Tribble, 1986), and teacher effectiveness (Ashton & Webb, 1986; Moore & Esselman, 1992). Based on replicable findings from several studies, Bandura (1997) states that gender and attitude influence academic performance to some extent through their mediating effects on an individual's self-efficacy beliefs. Numerous studies (Andrew, 1998; Bandura, 1997; Chemers, Hu, & Garcia, 2001; Greene & Miller, 1996; Miller, et al., 1996; Multon, Brown, & Lent, 1991; Pajares, 1996; Pintrich & DeGroot, 1990; Silver, Smith, & Greene, 2001, Lent, Brown, & Larkin, 1986; Pintrich & De Groot, 1990; Pintrich & Schunk, 2002; Witt-Rose 2003; Magogwe and Oliver 2007; Pajares, 1996; Schunk, 1995) have found that self-efficacy affects both general academic achievement and science achievement.

Self-efficacy has also been found to have critical effects on various types of academic learning (Bandura, 1997, 2000; Joo, Bong, & Choi, 2000; Linnenbrink & Pintrich, 2002; Little & Madigan, 1994; Pajares & Kranzler, 1995; Pajares & Miller, 1995; Pintrich & Schunk, 2002). More recent studies show that self-efficacy is strongly related to Web-based learning and performance (Bolt, Killough, & Koh, 2001; Compeau & Higgins, 1995; Joo et al., 2000; Tsai & Tsai, 2003). For example, Joo et al. (2000) found that students' self-efficacy in using the Internet significantly impacts their Web-based performance. Tsai and Tsai (2003) also indicate that students with higher Internet self-efficacy perform better than those with lower Internet self-efficacy in a Web-based learning task.

Students' Satisfaction

On the basis of students' perceptions of their instructors' teaching effectiveness, Davis (2000, cited in Keri, 2002) examined the impact of gender, cognitive learning styles, and students' attitudes towards computers on students' course satisfaction. Davis found that these constructs have a significant effect on students' satisfaction in the sense that it leads to their improved performance.

Miglietti and Strange (as cited in Keri, 2002) examined teaching and learning styles and classroom environment variables, and found that student-centered instruction positively impacted students' learning and satisfaction, regardless of their age. Betoret and Domenech (2007) examined the effect of teachers' and students' thinking styles on students' satisfaction with the course and on their learning process. Results reveal that both teachers' and students' thinking styles are good predictors of students' satisfaction and their involvement in the learning process.

Changchit and Klaus (2008) conducted a study focusing on students in online classes and examined the factors that affect student satisfaction. Results show that communication between students and teacher, harmonization, instructor support, learning, and peer support all correlate with student satisfaction. Bolliger (2004) suggests that student satisfaction in online courses is influenced by three constructs: instructor variables, technical issues, and interactivity. Booker and Rebman (2005) also discuss teacher quality as being the major factor that discouraged students from completing a course and increased their dissatisfaction.

Astin (1993) and Edwards and Waters (1982) state that in traditional settings, areas associated with student satisfaction are student characteristics, quality of relationships with faculty, curriculum and instruction, student life, support services, resources, and facilities. In a study of undergraduate students, Astin (1993) identified the following factors as most important: contact time with faculty members and administrators, availability of career advisors, student social life on campus, and overall relationships with faculty and administrators. Bean and Bradley (1986) concluded that the best predictors of student satisfaction are: academic integration, institutional fit, quality and usefulness of education, social life, and difficulty of the program.

According to Liegler (1997), some factors external to the classroom also affect student satisfaction, such as the students' backgrounds or pre-enrollment characteristics, the college's facilities and services.

Students' Academic Achievement

In the literature, it is frequently mentioned that satisfied students are likely to get along better with other students because they are more committed to achieve their goals. Miller (1977) notes that students' satisfaction "can have a positive effect on pupil attitudes and learning" (p. 389). Various studies also demonstrate the positive effect of student satisfaction on their performance and success, (e.g., Kelsey, (2000); Pascaralla & Terenzini, 1991; Shahin, 2007; Stensaker (2002) as cited in Williams, 2002).

Miller (1977) states that raising satisfaction levels makes teaching more pleasant for both teachers and students and creates an environment that is more conducive to

learning. Satisfaction and achievement are interrelated; when satisfaction is high, schools show an increase in student achievement. Student satisfaction is also important because it influences students' level of motivation (Chute, Thompson, & Hancock, 1999; Donohue & Wong, 1997), which is an important psychological factor in student success. Astin (1993) and Edwards and Waters (1982) note that satisfaction is a good predictor of retention, as well as a key psychological-affective outcome, which in turn may directly link to students' success in college.

Additionally, Donohue and Wong (1997) argue that satisfaction is highly correlated with achievement motivation among both traditional and non-traditional students. This may be why others (Centra & Rock, 1971; Lavin, 1985) found an association between satisfaction and college student achievement. Grade point average (GPA) has also been linked to student satisfaction (Bentler & Speckart 1979; Fishbein & Ajzen 1975, as cited in Donohue and Wong, 1997). Satisfaction and academic performance have been viewed as intervening variables that affect student attrition (Bean, 1980, 1983, 1985; Pascarella, 1980; Spady, 1970; Tinto, 1975, as cited in Donohue & Wong, 1997).

According to Kellum, Carr, and Dozier (2001) and Haffer and Ostiguy (2001), different instructional methods are linked to variations in the levels of student satisfaction. For instance, lecture styles may differ in how they facilitate students' learning. According to Bailey and Lagdana (1997), faculty performance and lectures play a large part in student satisfaction. In addition, an instructor's knowledge of the subject matter and teaching ability has also been shown to affect satisfaction (Aitken 1982; Hearn 1985; Metzner & Bean, 1987). In fact, as Hearn (1985) stated, course stimulation and faculty teaching ability have been shown to be stronger predictors of overall departmental satisfaction than social support.

Method

Participants

Data was collected from two groups of participants, which include a group of 16 instructors who were randomly chosen from the Bahar Language Institute, in Shiraz, Iran. The study examines their teaching beliefs and their sense of self-efficacy. Participants also included 255 intermediate-level English language learners (121 males and 127 females), who were taught by these instructors. Instructors were selected to measure and identify the relationship between their teaching beliefs and their sense of self-efficacy, as well as the effect of these two variables on students' degree of satisfaction and academic achievement.

Instruments

The first instrument used was Wilkerson and Lang's (2007) teachers' beliefs scale, which includes 50 items that address teachers' beliefs and preferences about different tasks and methods to be implemented in the classroom. Respondents can either agree or disagree with each item. Based on the score sheet specified by Wilkerson and Lang , each answer receives one point. The reliability of the scale,

according to the data collected in this study, was calculated using the Kuder-Richardson formula 21 and was approximately 63.3.

The second instrument, developed by Bandura (1997), was used to assess teachers' sense of self efficacy. As previously noted, teachers' sense of efficacy is not necessarily uniform throughout the many different types of tasks teachers are asked to perform or in the courses they teach. Bandura constructed a 30-item instrument that attempts to provide a multi-faceted and a more comprehensive picture of teachers' efficacy beliefs.

Bandura's 30-item scale consists of seven subscales: efficacy to influence decision making, efficacy to influence school resources, instructional efficacy, disciplinary efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, and efficacy to create a positive school climate. Each item is measured on a 9-point scale and anchored with the notations: "Nothing, very little, some influence, quite a bit, a great deal." Sample questions include: "How much can you do to get through to the most difficult students?" "How much can you do to support learning?" and "How much can you do to control disruptive behavior in the classroom?" "How much can you do to make parents comfortable coming to school?"

In their study of recognizing the reliability and validity of the self efficacy scale, Hoy and Spero (2005) reported that based on the average score for the entire 30-item scale, the alpha coefficients of reliability were .94, .95, and .92 across the three administrations. All items are scored such that a higher score indicates greater efficacy. In regard to data obtained in the current study, the reliability calculated through alpha Cronbach was .73 for this scale.

The Student Satisfaction Inventory was developed by Juillerat and Schreiner (2004), with assistance from the USA Group Noel-Levitz. [1] Noel-Levitz aims to help institutions meet their goals for enrollment and student success through providing the institutions with appropriate consultations. The original student satisfaction inventory collected student feedback on over 100 items, including items of expectation for the community, items defining the institution's commitment to specific students, items which assess pre-enrollment factors, general items assessing students' overall satisfaction with the institution, demographic items, and some optional items defined by the individual institution. Students rate each item in the inventory according to its importance/satisfaction on a scale of 1 to 7, with 1 being not important/satisfied and 7 being very important/satisfied. The Student Satisfaction Inventory was truncated by removing those items related to the college campus and offered services and including the items related to students' satisfaction with the teachers' method of teaching and classroom activities and behavior. After recurrent modification, the final form of the questionnaire was translated by the researcher, approved by the supervisor, and employed as the instrument to assess students' satisfaction t=in the present study.

The items included in this questionnaire were divided into seven subcategories, each under a heading. The subscales and their related items are illustrated in Table 1:

Table 1. Student Satisfaction Subscales

	Subscales	Items
1	Being helpful	1, 3, 9, 23, 30, 33
2	Being considerate	2, 7, 16, 17, 18, 20, 24, 25, 26, 27, 29, 31, 32
3	Being useful	4, 11, 14, 15
4	Teaching	6, 8, 13, 19, 20, 21
5	Behavior	10, 22
6	Knowledge	12, 28

Cronbach's alpha was used to determine the reliability of this scale, together with the subscales defined in this questionnaire. The value of the reliability was .84, which can be considered a good result. The instrument's validity was verified by two professors as experts in the field in the Department of Psychology, who also approved this instrument.

Data Collection

The two questionnaires for the teachers were given to the participants then collected, sorted, and scored by the researcher. The Student Satisfaction Scales were scored according to the 7-point Likert scale, 1 indicating "lack of satisfaction" and 7 "highly satisfied." The total scores of all the items were calculated and set as a total satisfaction score. Scores of items related to each factor were then calculated separately and assigned as F1, F2, F3... F6.

In addition, the teacher's efficacy scale was scored on a 9-point Likert scale. The total score of all these items is considered as the teacher's degree of teacher sense of self-efficacy and all those items related to the mentioned subscales in the questionnaire were calculated separately and assigned as S1, S2... S7.

Data Analysis

The mean total satisfaction score of all the students of each class was considered the mean of satisfaction related to each teacher. In order to answer the first research question, the Pearson Correlation was run twice: once between teachers' sense of self-efficacy and student satisfaction, and once between teachers' belief and student satisfaction. To answer the second research question, we explored the presence of a cause and effect relationship between the independent variable and student satisfaction, not a mere linear relationship for the first research question. A multiple regression analysis was used to investigate both the degree to which teachers' beliefs and their sense of self-efficacy could predict student satisfaction and to examine which of the subscales of teachers' sense of self-efficacy had more predictive power in student satisfaction.

To answer the third research question, different data files were defined. In each of these files, the total score of student satisfaction and their scores for each factor

were entered. Students' achievement scores were standardized by calculating the Z-score and entered as the second dependent variable in this data file. To investigate the relationship between student satisfaction and their achievement score, a Pearson correlation was used where multiple regression analysis was employed to find the causal relationship and the predictive power of the subscales of student satisfaction and their achievement score.

Results

The relationship between teachers' sense of self-efficacy and beliefs and students' total satisfaction with their teachers' method of teaching were investigated to answer the first question. As shown in Table 4, the result achieved by using the Pearson correlation between teachers' beliefs and student satisfaction indicates that the mean of teachers' beliefs is approximately 34.31, with a standard deviation of 3.78. Moreover, the mean student total satisfaction of all classes is approximately 174.48, with a standard deviation of 19.43.

Table 2. Descriptive Statistics of Teachers' Beliefs and Students' Total Satisfaction

	Mean	Std. Deviation	N
Belief	34.3125	3.78979	16
Total satisfaction	174.48E2	19.43234	16

The result of the Pearson correlation, as shown in Table 2, indicates that there is a significant negative correlation (r=.57; Sig= .02) between teachers' beliefs and student satisfaction.

Table 3. Correlation between Teachers' Beliefs and Student Satisfaction

		Belief	Total satisfaction
Belief	Pearson Correlation	1	-.574[*]
	Sig. (2-tailed)		.020

The Pearson correlation coefficient procedure was used to examine the relationship between teachers' sense of self-efficacy and student satisfaction. Descriptive statistics reveal that the mean teachers' sense of self-efficacy is roughly 171 with a standard deviation of 27.61 (Table 3).

Table 4. Teachers' Sense of Self-Efficacy and Students' Satisfaction

	Mean	Std. Deviation	N

Self-efficacy	1.7100E2	27.61642	16
Total satisfaction	1.7448E2	19.43234	16

As shown in Table 5, the result of the Pearson correlation shows that there is a low correlation of about .28 between these two variables. It should also be noted that this result is not significant. (Sig.=.29)

Table 5. Teachers' Self-Efficacy and Student Satisfaction

		Self-efficacy	Total satisfaction
Self-efficacy	Pearson Correlation	1	.281
	Sig. (2-tailed)		.292
	N	16	16

As discussed previously, the above correlation examines the relationship between the two variables, self-efficacy and students' satisfaction; however, it is necessary to examine whether this is a cause-effect relationship and which of these two variables (teachers' beliefs and their sense of self-efficacy and the subscales of teachers' sense of self-efficacy) can best predict student satisfaction. To satisfy this end, a multiple regression analysis was employed, the results of which indicate that this model is satisfactory. By referring to the model summary box (Table 6) and checking the r value, it can be observed that this model can significantly account for 90% of the dependent variables.

Table 6. Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.900[a]	.810	.592	12.41077

Table 7. ANOVA Summary

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4586.045	8	573.256	3.722	.050[a]
	Residual	1078.191	7	154.027		
	Total	5664.236	15			

To determine which of the independent variables and their subscales included in the model contributed to the prediction of the dependent variable, the beta value in the coefficient table was checked. As shown in Table 7, the beta value for teachers' beliefs is approximately .50, with a significance of .02. The subscales of teachers' sense of self-efficacy, which respectively contribute to the prediction of students' satisfaction, are disciplinary (β= 1.13; Sig= .01), decision making (β=.87; Sig= .02), instructional (β=.74; Sig=.05), school resources (β=.58; Sig=.04), community (β= .45; Sig= .10), parental (β= .44; Sig= .21), and school climate (β=.37; Sig=.31). The result of the last three variables is not significant at the level of .05.

Table 8. Summary of Findings

Model		Nonstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	235.971	42.306		5.578	.001
	belief	-2.591	.884	-.505	-2.932	.022
	decision making	-7.011	2.392	-.876	-2.931	.022
	school resources	5.350	2.185	.584	2.449	.044
	instructional	-1.412	.614	-.742	-2.299	.055
	disciplinary	7.345	2.156	1.132	3.408	.011
	parental	-1.695	1.248	-.445	-1.358	.216
	community	-1.682	.908	-.455	-1.851	.107
	school climate	.708	.655	.378	1.081	.316

With respect to the third research question, the Pearson correlation and multiple regression analyses were used to determine the relationship between the degree of student satisfaction and its related subscales with the standard score of their achievement test result for each class. For the sake of convenience, all of these results are summarized in Table 8.

Table 9. Correlation between Students' Satisfaction and the Related Subscales and Academic Achievement

	Correlation		Multiple regression (beta value)												R value	
	Cor.	Sig.	Help.	Sig.	Con.	Sig.	Use.	Sig.	Teach.	Sig.	Beh.	Sig.	Know.	Sig.	R	Sig.
Class 1	.43	.05	.35	.01	.37	.00	.04	.67	.05	.40	.19	.14	.09	.33	.97	.00
Class 2	.53	.03	.17	.74	.40	.28	.06	.89	.02	.95	.14	.61	.17	.66	.58	.60
Class 3	-.20	.34	.11	.76	.07	.81	.13	.69	.14	.62	.43	.36	.16	.63	.34	.88
Class 4	.58	.01	.51	.16	.01	.97	.43	.22	.09	.80	.04	.88	.00	.02	.74	.15
Class 5	.05	.84	.11	.78	.04	.94	.06	.94	.01	.98	.07	.93	.003	.99	.13	1.0
Class 6	-.26	.49	.33	.82	1.24	.54	.02	.98	.19	.79	.07	.96	.49	.75	.63	.93
Class 7	.30	.26	.44	.78	.26	.65	.05	.91	.19	.88	.07	.92	.26	.65	.50	.83
Class 8	.37	.32	.87	.30	.14	.81	.62	.77	.07	.95	1.07	.44	.13	.76	.92	.38
Class 9	.13	.67	.97	.29	.73	.54	.12	.94	.21	.76	.45	.49	.37	.77	.63	.75
Class 10	.06	.80	.50	.32	.57	.25	.27	.55	.82	.12	.52	.14	.52	.12	.64	.33
Class 11	-.53	.13	.29	.75	1.46	.18	.94	.47	.16	.74	.40	.48	.94	.14	.89	.48
Class 12	.18	.45	.10	.72	.70	.14	.49	.40	.14	.76	.26	.60	.23	.54	.53	.62
Class 13	-.25	.38	.11	.87	.05	.92	.07	.86	.25	.56	.45	.56	.39	.65	.47	.90
Class 14	.24	.44	.64	.20	.30	.54	.24	.57	.09	.84	.69	.14	.34	.48	.78	.38
Class 15	.24	.38	.14	.72	.88	.05	1.11	.11	1.98	.11	.67	.38	.44	.34	.73	.28
Class 16	.39	.14	.15	.86	.10	.82	.21	.69	.56	.35	.12	.87	.22	.68	.58	.67

Abbreviations

Cor: coordination; **Help**: being helpful; **Teach**: teaching method; **Beh**: teachers' behavior; **Know**: teachers' knowledge; **Sig**: degree of significance; **Con**: being considerate; **Use**: being useful

Discussion

The purpose of the present study was to explore the relationship between teachers' beliefs and their sense of self-efficacy. The study also investigated the effect of teachers' beliefs and their sense of self-efficacy on students' satisfaction and academic achievement.

To answer the first research question, an attempt was made to establish a relationship between teachers' beliefs and sense of self-efficacy with students' total satisfaction. As the results show, there is a significant negative correlation (r=.57) between teachers' beliefs and student satisfaction with the significance value of Sig=.02. It can be inferred that there is a reverse relationship between teachers' beliefs and students' satisfaction; while teachers hold high degrees of belief about their method of teaching and actual practice in the classroom, students are not satisfied with them. In other words, teachers' perceptions and judgments about the different kinds of classroom activities and their employed methodology are consistent with students' perceptions, and thus do not satisfy them.

This finding is not in line with the finding indicated by Betoret and Domenech (2007), who suggest that both teachers' and students' thinking styles are good predictors of students' satisfaction and their involvement in the learning process. Moreover, the findings of the present study is not in accordance with the findings of Bolliger (2004), Booker and Rebman (2005), and Rust and Oliver (1994), who consider instructor variables as one of the influential variables that affect student

satisfaction. One explanation for the negative correlation and the contrast to the findings of this study may be the lack of mutual understanding between the teacher and the students

To answer the second part of the first research question, the correlation between self-efficacy and student satisfaction was examined. Although students' degree of satisfaction and teachers' degree of self-efficacy are high, there was a small positive correlation of approximately .28 between these two variables. Because this result is not significant (Sig.=.29), the coefficient of determination was calculated. The significance of the correlation value is strongly influenced by the size of the samples. To solve this problem, the statistical significance was ignored and the focus was directed at the amount of shared variance. The value of the coefficient of determination shows that these two variables share only a 7-percent variance, indicating that there is not much overlap between these two variables.

The results of the above correlation neither reveal a cause-effect relationship between the variables nor show the existence of any relationships between the subcategories of each variable. Therefore, attention should be paid to the results of the multiple regression analysis in response to the second research question. As noted above, the model was defined by performing a multiple regression analysis between teachers' beliefs, the subcategories of teachers' self-efficacy and students' satisfaction was an acceptable model that explained 90% of the dependent variable. Considering the beta value, teachers' beliefs can significantly contribute to the prediction of students' satisfaction. Among the self-efficacy subscales, disciplinary, decision-making, instructional, and school resources significantly contribute to the prediction of the dependent variables respectively.

Accordingly, these two factors not only predict student satisfaction but also might be regarded as effective factors in determining students' satisfaction. Moreover, the findings lend support to some of the previous research done in this field; for instance, they are in line with Changchit and Klaus (n. d.) and Bolliger (2004 indicating that teachers' communication and harmonization, as well as instructor support, correlate with student satisfaction. With regard to the subscales of teachers' self-efficacy and student satisfaction, the results can be compared to Edwards and Water's (1982) findings, which reported that the quality of relationships with faculty and curriculum and instruction affect satisfaction. Furthermore, Astin's (1993) categorical findings, which considered contact time and overall relationships with faculty members and administrators, as well as the availability of career advisors as the significant factors in student satisfaction, align with the findings of the present study.

According to Rust and Oliver (1994), students expected teachers to be able to use various methods to arouse students' interests and to help them understand the real life applications of the topics covered. They mentioned eight factors affecting students' satisfaction, which as mentioned before, are in line with the findings of the present study. Those factors discussed in the literature as the influential factors on student satisfaction are the quality of teaching and the school climate (Wiers-Jenssen et al. 2002), instructor characteristics (Finaly-Neumann 1994; Williams &

Ceci, 1997), and the performance of the instructor, particularly his/her availability and response time (DeBourgh 1999; Hiltz, 1993). Furthermore, they correspond to the findings of this part of the study.

The aim of the third research question was to explore the relationship between students' satisfaction and their achievement scores. The outcomes of the Pearson Correlation coefficient analysis and multiple regression between the subscales of students' satisfaction and academic achievement showed that in four classes (classes 3, 6, 11, and 13) there were negative correlations between students' satisfaction and their achievement scores. For these classes, it can be stated that students' satisfaction does not correlate with students' academic achievement; when students are satisfied with their teachers' method of teaching, their scores are lower. Still, one should bear in mind that none of these correlations were significant. However, in the other 12 classrooms, a positive correlation was found between the two variables. Although some of the results are not significant, this nevertheless allows one to conclude that there is an affiliation between students' satisfaction and their achievement scores; that is, when students feel a sense of contentment with their class atmosphere, their teachers' method of teaching, and the sorts of activities being implemented in the classroom, their achievements will be greater.

It is essential to refer to the results of multiple regression analysis to determine which of the subscales of student satisfaction will contribute more to the prediction of students' academic achievement. Checking the beta values of the satisfaction subscales of all classes, *being considerate* has the highest frequency in all classes. In other words, in 5 classes (1, 2, 6, 11, and 12) *being considerate* predicts students' achievement more than the other subscales. Most of the results in this section are not significant. Examining the *r* value for each class, it is noticeable that in most of these classes an acceptable model can be sketched between the variables; in fact, students' satisfaction can affect their achievement. Those teachers who are more considerate towards their students can increase their students' satisfaction.

Furthermore, based on the items related to the second subscale of the satisfaction questionnaire labeled as *being considerate*, it can be concluded that teachers who care, are concerned about their success and committed to academic excellence, respond to prospective students' unique needs and requests, and provide timely feedback about student progress in a course are more successful in creating satisfaction among learners. Furthermore, teachers should communicate with learners effectively, encourage their students, take a personal interest in every individual, be good listeners, provide clear information about course requirements, help learners understand why required courses are important, refer learners to other campus resources, and help students make important educational decisions regarding their academic career. The findings within this section of the study are in line with the related literature revealing a positive relationship between students' satisfaction and academic achievement (Miller 1981; Centra & Rock 1971; Lavin 1985; Pascaralla et al. 1991 as quoted by Wiers-Jenssen et al. (2002, p. 184); & Stensaker, 2002 as cited in Williams, 2002).

Considering the main predicting subscale of student satisfaction, it is fair to say that many of these items illuminate the essential role of teachers in increasing student satisfaction. This verifies the results achieved in previous research mentioned in the literature (Adams 1992).

As mentioned earlier, teachers' interaction and communication with learners led to improvement in the students' satisfaction and consequently in their achievements. This finding aligns with Kelsey (2000), who claimed that an increase in interaction increased student satisfaction among distance learners in an applied animal genetics course. Moreover, findings from this study align with Shahin (2007), which show that instructor support, active learning, and authentic learning, were significantly and positively related to student satisfaction. In regards to virtual learning environments, Alderman and Fletcher (n. d.) concluded that interaction was an essential contributor to these students' achievement and satisfaction. Among the satisfaction subscales, teachers' knowledge did not show any predicting power to contribute to learners' satisfaction.

Conclusions and Implications

This study may inform pedagogical practice in several ways. For instance, teachers should be cognizant of the fact that their beliefs about the methods and activities that they arrange for their classes do not always lead to student satisfaction. Furthermore, it is recommended that teachers and students explore and articulate their own educational beliefs and use them to explain, justify, question, and inform future educational practices. Such practices may contribute to the goal of improving the quality of teaching and learning together with the experiences of what it is to be a teacher and a learner, or both. Based on the results concerning students' satisfaction, it can be said that teachers who are concerned about learners' success and are committed to academic excellence on the campus are more successful in stimulating satisfaction in learners. Teachers who help learners understand why required courses are important, refer learners to other campus resources, and help individual learners make important educational decisions regarding their academic career seem to positively affect students' satisfaction.

The results of this study can also inform teacher training courses and educational programs that train prospective teachers. Sources of self-efficacy, environmental factors affecting these sources, and the consequences of being self-efficacious should be clarified for prospective teachers in training courses, and they should be reminded about the specific strategies they can use to augment this sense in themselves. Prospective teachers should also recognize that making students satisfied lead to acceptable academic achievement. Actualizing these two ends will affect teachers' sense of self-efficacy. Teacher trainers and pre-service teachers should be aware of their own educational beliefs and make them clear to themselves and to others.

Language institutes can also benefit from the results of this study. Improving overall student satisfaction may help these centers remain competitive in the increasingly

challenging business world. Furthermore, school environment and resources constitute one of the subscales of teacher efficacy. Therefore, creating a positive school climate and making it a safe place for teaching and learning may lead to teachers' self-efficacy. With regard to students' satisfaction, institutes and school environments play an important role in learners' success. Student satisfaction with regard to teachers and the school atmosphere can be assessed through questionnaires during the semester, in order to recognize the factors that decrease students' satisfaction. It would also be beneficial for colleges and institutes to collect students' evaluations concerning their satisfaction of the staff and teachers in order to increase students' motivation to continue their study in the same educational setting, and their academic achievements.

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