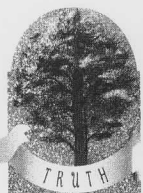


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A STUDY OF THE RELATIONSHIP BETWEEN TEACHER EFFICACY,
DEMOGRAPHICS, AND STUDENTS' ACHIEVEMENTS IN READING IN UNITED
ARAB EMIRATES

by
LINA G. FRANCIS

A thesis
submitted in partial fulfillment of the requirements
for the degree of Masters of Arts
to the Department of Education
of the Faculty of Arts and Sciences
at the Haigazian University

Beirut, Lebanon
June, 2006

HAIGAZIAN UNIVERSITY

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ACKNOWLEDGEMENTS

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ACKNOWLEDGEMENTS

I would like to extend my deepest appreciation to my advisor, Dr. Ahlam Klailat, for her support and professional guidance in so many ways. Special thanks are to my two readers, Dr. David Tawil and Dr. Haneen Hout, who offered their thorough and reliable suggestions for my research.

I would also like to thank Mrs. Sarar Maalouf for encouraging me to enroll in the program, and for being such a wonderful person and teacher who puts her heart and soul in everything she does.

CONTENTS

ABSTRACT

The current study examined the effects of teachers' sense of efficacy on students' reading achievement. Other demographic variables were studied as possible influential factors on teachers' sense of efficacy. Two separate questionnaires were completed by the supervisors and the teachers, respectively. The target sample were the foreign teachers (N=42), supervisors (N=3), and students (N=799) in two elementary private schools located in Dubai, United Arab Emirate. The reliability of the teacher efficacy scale was tested by Cronbach Alpha. One-way ANOVA tests, independent t-tests, and multiple regressions were used to test the hypotheses. Significant results showed that experienced teachers have higher sense of efficacy than novice teachers. Furthermore, results showed that the higher the teacher's efficacy: a) in student engagement, the higher the student's open ended score; b) in classroom management, the lower the student's score on comprehension; c) on the whole Teacher Sense of Efficacy Scale, the higher the student's scores on vocabulary and open ended sections. Finally, new directions for research were proposed.

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CHAPTER ONE

INTRODUCTION

A. Specification of the Problem and its Background

A plethora of research has been conducted on what constitutes effective teaching, and what factors promote successful student learning. The most common aspect found among such research is the idea that teachers play a central role in bringing about any positive change. However, the question that could be raised here is: What are the teacher characteristics that bring about successful student learning?

Perceived self-efficacy is the one teacher characteristic that has consistently been found to be related to successful student learning (Ashton & Webb, 1986; Armor, 1976; Berman & McLaughlin, 1977; Cohen, 1981; Edmonds, 1979; Rutter, Maugham, Ouston, & Smith, 1979). Berman and McLaughlin (1977) found that teacher's sense of efficacy was strongly associated with increased student learning. In addition, Ashton and Webb's work (1986) suggested that teacher's perception of self-efficacy relates not only to valued student classroom behaviors and increased achievement scores, but also to an impressive profile of teacher behaviors including warmth, responsiveness, acceptance of student initiative, and attention to individual needs. Furthermore, commitment has been found to correlate with teacher efficacy (Coladaric, 1992; Evans & Tribble, 1986). Teachers who

have a sense of being able to affect pupils are more satisfied with their work and show greater reluctance to abandon it.

For the past few decades, there has been continuing growth in the research base on what constitutes effective teaching and what teacher characteristics promote successful student learning. One of the major contributions in this field is the work of the social cognitive theorist, Albert Bandura. Central to Bandura's (1977) framework is his concept of self-efficacy. He defined self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p.3). Self-efficacy beliefs were characterized as the major mediators of one's behavior, and importantly, behavioral change. In other words, Bandura hypothesized that peoples' belief about the action-outcome relationship (a belief that X leads to Y) is not a sufficient determinant of behavior. Rather, behavior is more likely to be determined by peoples' self-efficacy (a belief that they can do X) in order to produce certain outcomes.

In Bandura's account, self-efficacy is a relatively stable constellation of personal beliefs that emerges from a subject's interpretation of experience. Reflection on past successes and failures leads the individual to foresee how well he will be able to perform particular tasks in specific context. These anticipations influence willingness to engage in the tasks, the amount of effort expended, and persistence in the face of adversity (Ross, 1994).

Social cognitive theory proposed a second kind of expectation, outcome expectancy, which is distinct from efficacy expectations. An efficacy expectation is the individual's conviction that he or she can orchestrate the necessary actions to perform a given task, while outcome expectancy is the individual's estimate of the likely

consequences of performing that task at the expected level of competence (Bandura, 1986). Bandura observed: “People regulate their level and distribution of effort in accordance with the effects they expect their actions to have. As a result, their behavior is better predicted from their beliefs than from the actual consequences of their actions.” (1986, p. 129).

Bandura (1977) argued that personal efficacy is concerned with the conviction that one can successfully execute the behavior required to produce the outcomes. Outcomes and efficacy expectations are differentiated because individuals can believe that certain behaviors will produce certain outcomes, but if they do not believe that they can perform the necessary activities, they will not initiate the relevant behaviors, or if they do, they will not persist. Furthermore, outcome expectancy would essentially reflect the degree to which teachers believed the environment could be controlled, that is, the extent to which students can be taught given such factors as family background, IQ, and school conditions. Self-efficacy beliefs would indicate teachers’ evaluation of their abilities to bring about positive student change. He also suggested that teachers high on both variables will respond with active, assured responsiveness and teachers low on both variables will give up readily if they don’t get results. Hence, one could predict that teachers who believe student learning can be influenced by effective teaching, and who have confidence in their own teaching abilities, should persist longer, provide a greater academic focus in the classroom, and exhibit different types of feedback than teachers who have lower expectations concerning their ability to influence student learning.

Educationally, self-efficacy beliefs are related to academic performance and self-regulated learning (Pajares, 1996; Schunk, 1991; Zimmerman, 1995). Teacher efficacy is

a subcategory of self-efficacy. It refers to an individual's beliefs about proficiency in performing the actions thought to lead to student learning. According to Ross (1992), teacher efficacy measures the extent to which teachers believe their efforts will have a positive effect on student achievement.

The present study is not concerned with the concept of self-efficacy as such. Instead, the focus is mainly on teacher efficacy and its influence on student achievement in the United Arab Emirates. Attention will be drawn to several factors that might affect teachers' own sense of efficacy in that particular setting. Knowing which factors contribute to positive teacher growth and performance would help instructional leaders nurture and facilitate such a construct.

Since that time, research in many arenas has demonstrated the power of efficacy perceptions in human learning, performance, and motivation. There is evidence that teachers' beliefs in their abilities to instruct students may account for individual differences in effectiveness (Armor, Conry-Oseguera, Cox, King, McDonnell, Pascal, Pouly, & Zellman, 1976; Berman & McLaughlin, 1977; Brookover, Schweitzer, Schneider, Beady, Flood, & Wisenbaker, 1978; Brophy & Evertson, 1977). Berman and McLaughlin (1977) found that the most important characteristic determining the effectiveness of change-agent projects was teachers' sense of efficacy – a belief that teachers can help even the most difficult or unmotivated students. Armor et al. (1976) reached a similar conclusion in evaluating the effectiveness of the School Preferred Reading Program in Los Angeles. These researchers reported that the greater the teachers' efficacy, the more their students advanced in reading achievement.

Brookover et. al (1978) found that teachers in high-achieving schools spent longer proportions of time in instruction and demonstrated greater concern and commitment to their students' achievement. Even though it was not specifically referred to, Brophy and Evertson (1977) reported that teachers who were successful in producing student learning gains tended to have higher expectations and assumed personal responsibility for making sure that students learned. In addition, other studies have shown that teacher efficacy contributes to student achievement in language arts and social studies (Anderson et al. 1988; Ashton & Webb, 1986; Ross, 1992). Teachers tend to be less critical of students who make errors and to work longer with a student who is struggling (Ashton & Webb, 1986; Gibson & Dembo, 1984; Tshannen-Moran & Woolfolk Hoy, 2001). Dembo and Gibson's studies (1985) concluded that teachers' sense of efficacy was one of the best predictors of the "percentage of goals achieved, amount of teacher change, improved student performance, and continuation of both project methods and material." p.173

Furthermore, studies have shown that teacher efficacy is more likely to increase during the period of preservice training, particularly during the first practice teaching episode (Hoy & Woolfolk, 1990). However, there is much greater stability in teacher efficacy among inservice teachers with some decline with more years of experience (Gaith & Yaghi, 1997; Anderson et al., 1988; Moore & Esselman, 1992; Guskey & Passero, 1993).

Although most researchers have treated teacher efficacy as a unidimensional trait, others have distinguished two types, following Bandura's (1977) distinction between expectations about one's ability to implement particular strategies and expectations about the outcomes of these strategies. The most frequently used instrument (Gibson & Dembo,

1984) produces two scores: personal teaching efficacy (the expectation that the respondent will be able to bring about student learning), and general teaching efficacy (the belief that teachers' ability to bring about change is limited by factors beyond their control). In most studies there is a weak positive correlation between the two measures and some researchers such as Hoy & Woolfolk (1990) have argued that it is misleading to combine the scores into a single measure.

In sum, teachers' beliefs play a critical role in their professional development. Those with a strong sense of efficacy tend to exhibit greater levels of planning, organization, and enthusiasm in their daily activities. Knowing which factors contribute to positive growth and performance would help instructional leaders nurture and enhance teacher efficacy which may hopefully affect students' achievements.

B. Rationale

Teacher efficacy has been identified as a pivotal variable accounting for individual differences in teacher practice and student outcomes. The objective of this study is to examine the relationship between teacher efficacy and student achievement. Another matter considered in this study is the effect of different demographic variables on teachers' sense of efficacy in international private schools run by Emirates in the United Arab Emirates. Even further, a comparison between supervisors' teacher ratings and the teachers' own ratings on efficacy will be conducted to see if they share the same objectives or goals on what constitutes effective teaching in the classroom.

In order to meet these objectives, the Teachers' Sense of Efficacy Scale (TSES), also known as the Ohio State Teacher Efficacy Scale (OSTES), which was developed by Tschannen-Moran and Woolfolk (1998) will be used as a tool to find the relationships

between teacher efficacy and student achievement in the United Arab Emirates. Among the available research studies in this area, only Ghaith and Yaghi (1997) tackled this issue of teacher efficacy in the Middle East. However, their interest was to explore what made teachers apply new instructional innovations in their classrooms and to what extent they were willing to maintain such changes.

Knowing that very little attention has been given to this powerful construct in the Arab world, this research is an attempt to enrich the existing literature in the field by using the Emirate private schools as the target communities. Although teachers in Dubai are of different nationalities, the student body at hand is predominately Emirates. Hence, the questions that could be raised here are: Does teacher efficacy foster student achievement? Do administrators consider this construct while planning for staff development projects? Do administrators and teachers share the same objectives and points of view or perspectives when it comes to what constitutes good and effective teaching? Is there a difference between experience and inexperienced teachers? Answers to such questions and many others will help all those concerned in establishing a general idea of what the teacher efficacy construct holds.

C. Hypotheses

Four hypotheses can be postulated based on the research conducted in that area. They will be tested in an effort to provide answers to some of the questions at hand and shed light on the relationships between teacher efficacy, years of experience, student achievement, and others.

The two hypotheses stated below are related to the demographic aspects of the teacher sample.

H 1 Different demographic characteristics affect teachers sense of efficacy.

H 2 Experienced teachers have higher sense of efficacy than novice teachers.

The hypothesis hereafter is related to the supervisor's evaluation of the teacher's performance.

H 3 The higher the supervisor's evaluation ratings of their teachers' performances, the higher the teacher's own sense of efficacy.

The final hypothesis tests the effect of teacher efficacy on student's reading achievement.

H 4 The higher the teacher's sense of efficacy the higher the students' reading achievement.

D. Definition of Variables

The demographic variables mentioned in the above hypotheses are defined as follows:

- Schools: International Private Schools run by Emirates are considered for the study.
- Grade Levels: Elementary classes from grades 1 till 5.
- Nationality: Teachers had to indicate their own nationality whether they are Europeans, Americans, Asians, Arabs, African, or other. They had to specify if they chose "other".
- Years of Experience: The teachers were asked to indicate the number of years they had been teaching and not the years taught at the present school.
- Educational Background: Teachers were asked to specify the last obtained degree whether in education, psychology, or other by indicating their major.

- Teacher Efficacy: It is a judgment of the teacher's capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated. In this study, the efficacy scale used tested teacher's efficacy in three domains that are listed below.
 - Student Engagement: It has been used to depict students' willingness to participate in routine school activities such as submitting required work and following teacher's directions in class. The student should exert intense effort and concentration in the implementation of learning tasks.
 - Instructional Strategies: These strategies are also known as the methods that the teacher uses in her/his classroom while teaching the students either individually or as a group.
 - Classroom Management: It is the method by which a teacher creates a positive learning environment for her/his students in dealing with misbehavior or unwanted actions. A behavioral plan should consist of rules, procedures, consequences, and rewards for student behavior.
- Supervisors' Ratings: The ratings considered here are the same as those on the teachers' efficacy scale. However, the supervisors were asked to rate their teachers' performances based on how well the teachers' instructional strategies are, and how well they engage students and manage their classrooms.

E. Methodology

The sample of the current study constituted of 42 elementary teachers, three supervisors and 799 students from grades 1 to 5 attending two international private schools in the United Arab Emirates. Three instruments were used to collect the data. The

first was a questionnaire divided into three parts: (1) included six demographic questions; (2) a teacher efficacy 9-point Likert scale that constituted of 24 questions; (3) and students' scores on a standardized reading test. This three-part questionnaire will be completed by the teachers.

The second instrument is a semi structured 3-item questionnaire completed by the supervisors in order to rate their teachers' performance. Supervisors and teachers were interviewed by the researcher. A standardized test was used as a third instrument to test all students' reading skills from grades 1 till 5. The reliability and validity of the Teacher Sense of Efficacy instrument was measured by Cronbach Alpha. Independent t-test, analysis of variance (ANOVA), and multiple comparisons were used to test the hypotheses.

F. Significance of the Study

Student academic achievement in schools is highly affected by the quality of teachers they have. Improving the selection process to identify individuals who have the potential to become effective teachers would eliminate much effort later in terms of money and training to shift the beliefs and practices of those teachers who are ineffective. According to Haberman (1995), selection is more important than training; it represents as much as 80 percent of the formula for a teacher's success.

Administrators can use the teacher efficacy scale as part of the recruitment process. Moreover, they can use the same criteria that the scale uses such as student engagement, instructional strategies, and classroom management to evaluate teachers' performances while observing. This could help them establish a common ground between them and the teachers so that both sides know what the objectives and goals are for

school improvement. It can also help them detect the teacher's weaknesses or areas that need support. Thus, if administrators realize that there are similar difficulties that teachers are facing, then they would be able to set up workshops that would cater for the teachers' needs in the school.

Teachers could use the scale as a tool for self-evaluation or self-reflection. Their ratings could help them question their techniques used in class, their professional development, detect their own weaknesses, find ways to improve them, and reach out for help and support from their colleagues and administrators.

Efficacy is not a trait, but a characteristic that could be nurtured. It may be affected positively or negatively by many factors such as the environment, administrative support and many other variables. Teachers may realize that their efficacy was different a few years ago. The school that the teacher is currently part of may influence the teacher's perception of her/his sense of efficacy. Generally, teachers who might have perceived themselves as having a high sense of efficacy several years ago may become indifferent when they are teaching in a school that offers little support or if they feel that not much is being done to solve day to day problems at school.

Schools need to exercise greater selectivity in hiring teachers. Only through changes in the quality of teachers will student academic achievement increase. In turn, these changes will be reflected in the teachers' beliefs about students and their practices.

CHAPTER TWO

REVIEW OF LITERATURE

A. The Emergence of Teacher Efficacy Research

The search for ways to measure teacher efficacy has been extensive. The construct of teacher efficacy has been derived from two separate lines of research, Rotter's (1966) locus of control theory and Bandura's (1977) social cognitive theory. In the attempt to capture the meaning of this powerful construct, researchers have tried both long, detailed measures and short, general ones.

1. Locus of Control and the RAND Research

The first measures were grounded in Rotter's social learning theory. With the work of Rotter (1966) as a theoretical base, the Rand researchers (Armor et al., 1976) included two items in a massive survey that reflected the locus of control constructs. Locus of control refers to the degree an individual believes that the perceived cause(s) of an intended outcome are within his or her control. Because teacher efficacy was conceptualized in terms of locus of control, efficacy was seen as the extent to which teachers believed that factors, which they could control, had a larger impact on teaching outcomes than beliefs that the environment held greater power (Tschannen-Moran et al., 1996).

1998). To measure efficacy, teachers were asked to indicate their level of agreement by choosing one of the two statements Rand 1 or Rand 2.

- Rand 1: “When it comes right down to it, a teacher really can’t do much because most of a student’s motivation and performance depends on his or her home environment.”
- Rand 2: “If I really try hard, I can get through to even the most difficult or unmotivated students.”

The sum of the two items was called teacher efficacy (TE). Those that expressed strong agreement with Rand 1 indicated that environmental factors overwhelm any power that teachers can exert in schools. In other words, it reflected an external control orientation. In effect it highlights the powerlessness of teachers in the face of students’ home experiences. Teachers’ beliefs about the power of these external factors have since been labeled general teaching efficacy (GTE) (Ashton, Olejnik, Crocker, & McAuliffe, 1982).

On the other hand, the second Rand item reflected an internal control orientation, emphasizing the power of the teacher to reach students regardless of their environmental conditions (Tschannen-Moran et al., 1998). These teachers may well have experienced past success in boosting students’ achievement. This aspect of efficacy has been labeled personal teaching efficacy (PTE); it is more specific and individual than a belief about what teachers in general can accomplish.

This appealing notion, that teachers’ beliefs in their own capabilities somehow matter, proved to be significantly related to teachers’ success in teaching reading (Armor et al., 1976), student achievement, teacher behaviors known to foster achievement, a

willingness to accept change proposals and an increased likelihood of successfully implementing innovation (Berman et al., 1977). These items, Rand 1 and Rand 2, and this orientation guided most teacher efficacy research during the late 70s and early 80s.

Spurred on by the success of the Rand studies, several researchers sought to expand and refine the notion of teacher efficacy and develop measures they hoped would capture more of this powerful construct. Hence, shortly after the first Rand study was published, Guskey (1981) developed a 30-item instrument titled Responsibility for Student Achievement (RSA). Utilizing this scale, efficacy was defined as “a teacher’s belief or conviction that he or she can influence how well students learn, even those who may be difficult or unmotivated” (Guskey, 1987, p.41). Thus, self-efficacy became equated with a causal explanation for what an individual can do. Guskey’s scale measured the amount of responsibility for student learning a teacher felt in general, as well as two subscale score, which reflected the degree of responsibility felt for student success and student failure. Guskey (1982, 1988) compared scores from the RSA with teacher efficacy (TE), he found significant positive correlations between teacher efficacy and responsibility for both student success (R+) and student failure (R-).

For example: If a student does well in your class, would it probably be

- a. because that student had the natural ability to do well, or
- b. because of the encouragement you offered?

The understanding of efficacy described by Guskey was deeply rooted in attribution theory (Weiner, 1979, 1992) and conceptions of locus of control (Rotter, 1966). Both theories reflect an individual’s willingness to act based on perceived

amounts of control over consequences. In this case the consequence referred to achieving positive student outcomes despite the impact of external factors.

At the same time that Guskey developed the RSA, Rose and Medway (1981) proposed a 28-item scale called the Teacher Locus of Control (TLC) in which teachers were asked to assign responsibility for student successes or failures by choosing between two competing explanations for the situation described. For example:

Suppose you are teaching a particular concept in arithmetic or math and the student has trouble learning it. Would this happen

- a. because the student wasn't able to understand it, or
- b. because you couldn't explain it very well?

Scores on the TLC have been weakly but significantly related to the individual Rand items (GTE and PTE) as well as to the sum of the two Rand items (TE). Rose and Medway (1981) found that the TLC was a better predictor of teacher behaviors than Rotter's internal-external scale, probably because it was more specific to a teaching context.

At about the same time as the RSA and the TLC were being developed, a third group of researchers sought to expand the Rand efficacy questions to increase their reliability. The Webb Scale (Ashton et al., 1982) was an attempt to extend the measure of teacher efficacy while maintaining a narrow conceptualization of the construct. Webb and his colleagues found that teachers who scored higher on the Webb efficacy scales evidenced fewer angry or impatient interactions in their teachings (Ashton et al., 1982). This measure never met with wide application.

2. Bandura's Social Cognitive Theory

While one strand of research grounded in Rotter's social learning theory developed, a second strand emerged, growing out of Albert Bandura's (1977) social cognitive theory and his construct of self-efficacy as the primary motivational force behind an individual's actions. As defined by Bandura (1977), self-efficacy is "the conviction that one can successfully execute the behavior required to produce outcomes" (p. 193)

Efficacy beliefs have four sources: mastery experiences, vicarious experiences, verbal persuasion, and physiological arousal (Bandura, 1977). Mastery experiences are those instances in which individuals actually perform the act under question. Efficacy beliefs are formed based on the degree of success or failure one feels in a given situation such as teaching a class.

Another source of efficacy beliefs are vicarious experiences in which individuals observe others and use these observations as a source of information in the beliefs that are formed about the self (Bandura, 1997). The power of vicarious experiences is dependent on the similarity of the model observed to the observer and the actions observed (Bandura, 1997). The third source of efficacy beliefs is verbal persuasion. This is found in the voiced support of our friends and colleagues as they provide verbal support for our attempts to take on and complete tasks. However, verbal persuasion, like vicarious and mastery experience, can be negative as well as positive.

Feedback from the students' parents, colleagues, and the students themselves, may work to convince teachers that they are not succeeding and should give up the effort. The last source of efficacy is physiological cues. The human body can inform its owner

of emotions that may not be evident on the surface. Thus, sweaty palms or butterflies in the stomach serve to inform individuals of how they are doing in a mastery experience.

Bandura (1986) posited that self-efficacy is the central mediator of effort. That is, increased efficacy beliefs will lead to increased persistence and high levels of performance. With regard to teachers, Dembo and Gibson (1984) and Woolfolk and colleagues (1990) have documented the relationship between teachers' efficacy and persistence in the face of difficulty. Similarly, researchers have found a relationship between teachers' efficacy and their performance. For example, Ashton and Webb (1986), as well as Berman and colleagues (1977), have documented the relationship of higher efficacy to the instructional practices known to foster academic achievement.

Social cognitive theory assumes that people are capable of human agency, or intentional pursuit of courses of action, and that such agency operates in a process called triadic reciprocal causation. Reciprocal causation is a multi-directional model suggesting that our agency results 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. This trinity mutually impacts its members, determines that we are the products of a dynamic interplay between the external, the internal, and our current and past behavior.

B. Toward a Combined Model

Several researchers attempted to draw on both Rotter and Bandura, reconciling the two conceptualizations or simply ignoring the distinction. Thus, to address the assumption that teacher efficacy is context specific, Ashton et al. (1984) generated a measure that employed a series of vignettes describing situations common to a teacher's

practice. Respondents were asked to judge how well they felt they could perform in each situation on a scale ranging from “extremely ineffective” to extremely effective”. Two sets of vignettes were created one set reflecting beliefs about teachers and teaching in general, an outcome expectancy, and a second set related to the personal ability of the respondent. However, the major contributors to this venue of conceptualization were Gibson and Dembo (1984) with the development of the teacher efficacy scale.

In the early 1980s, Gibson and Dembo developed the Teacher Efficacy Scale (TES), building on the formulations of the Rand studies, but bringing to bear the conceptual underpinnings of Bandura as well. Gibson and Dembo (1984) developed a 30-item measure of teacher efficacy. The measure was developed to assess what they perceived to be the two aspects of teacher efficacy. They determined that each of the Rand items reflected a unique type of expectation: an outcome expectation and an efficacy expectation (Gibson & Dembo, 1984). Specifically, the first Rand item was identified as an outcome expectation and served as a measure of general teaching efficacy. That means this item measures the extent to which teachers in general could impact student learning regardless of environmental influences. The second Rand item was interpreted as an example of a personal teaching efficacy expectation. In effect, this item assessed the individual’s belief in his or her ability to reach students, reflecting an assessment of self-efficacy as described by Bandura (1977). The latter is considered to be a more specific individual belief of what the individual teacher can accomplish (Tschannen-Moran et al., 1998).

Using the Gibson and Dembo items, other researchers have confirmed the existence of two factors (Anderson et al., 1988; Hoy & Woolfolk, 1993; Moore &

Esselman, 1992). When the Rand items were included in the factor analysis with Gibson and Dembo measure, Rand 1 usually loaded on the GTE factor and Rand 2 usually loaded on the PTE factor (Woolfolk & Hoy, 1990). Further analysis showed that several items loaded on both factors, so as a result some researchers have used the shortened version, selecting only the 16 items that loaded uniquely on one factor or the other (Woolfolk & Hoy, 1990).

The Gibson and Dembo measure has been the most popular of the teacher efficacy instruments to date leading Ross (1994) to label it a “standard” instrument in the field. However, as teacher efficacy research flourished, serious questions about the TES arose. Coladarci and Fink (1995) found weak evidence for discriminant validity of PTE and GTE scores. Furthermore, Guskey and Passaro (1994) reported that the PTE and GTE factors did not correspond to self-efficacy and outcome expectancy dimensions, but to an internal versus external orientation respectively.

Dissatisfied with any of the existing measures, many researchers have used a combination of items from several instruments (Midgley et al., 1989; Coladarci & Fink, 1995). Consistent with Bandura’s (1977, 1982, 1996) general formulation of self-efficacy, Tschannen-Moran and Woolfolk Hoy (in press) defined teacher efficacy as a teacher’s “judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even among those students who may be difficult or unmotivated.” The idea that these self-judgments impact teacher behavior and student learning has received considerable attention and empirical support in the literature since its introduction in the late 1970s.

C. Current Issues in Teacher Efficacy

While the study of teacher efficacy has borne much fruit, the meaning and the appropriate methods of measuring the construct have become the subject of recent debate (Tschannen-Moran et al., 1998). This dialogue has centered on two issues. First, based on the theoretical nature of the self-efficacy construct (Bandura, 1977, 1996), researchers have argued that self-efficacy is best measured within context and about specific behaviors (Pajares, 1996). Second, the construct validity of scores from a variety of instruments purporting to measure teacher efficacy and related constructs has come under significant fire.

1. Common Definitions

A longstanding tradition in the fields of teacher efficacy has been built on the distinction of the two dimensions or factors of teacher efficacy, namely teaching efficacy or general teaching efficacy and personal teaching efficacy (Tschannen-Moran et al., 1998). This distinction separates beliefs about what teachers can do in general from what individual teachers believe themselves to be capable of doing.

Definitions of general teaching efficacy tend to focus on the ability of teachers to help or reach students beyond the external factors that impact the learning process (Anderson, Greene, & Lowen, 1988; Ghaith & Yaghi, 1997; Ross, 1994). On the other hand, definitions of personal teaching efficacy focus on two key components; the individual's ability to perform actions and the power of those actions to influence student learning (McLaughlin & Marsh, 1978; Ross, 1992, 1994).

Personal efficacy focuses specifically on teachers' belief about their own ability to impact students rather than on the more distant notion of what teaching and teachers

can do in general. As such, the perspective of personal teaching efficacy more closely reflects the meaning and the understanding of self-efficacy as put forth by Bandura (1977, 1986, 1993, & 1997) and avoids confounding teacher efficacy with locus of control. Therefore, some scholars have suggested that personal teaching efficacy and its subsequent measurement is a more accurate description of teacher efficacy than the construct called general teaching efficacy (Guskey & Passaro, 1994; Tschannen-Moran et al., 1998)

2. Concerns Regarding the Gibson and Dembo Model

Dissension still remained in the interpretation of the Gibson and Dembo (1984) measure and the understanding of the efficacy construct. Tschannen-Moran et al. (1998) challenged both current conceptualization of teacher efficacy as a construct and the psychometric properties of predominate instruments in the field. Particularly, they presented a thoughtful critique of the construct validity of scores from the TES (Gibson & Dembo, 1984). They disagreed with Gibson and Dembo's claim that the PTE and GTE subscales of the TES reflect Bandura's (1977) self-efficacy and outcome expectancy dimensions of social cognitive theory.

Upon close review of the items in the Teacher Efficacy Scale (TES), Coladarci and Fink (1995) largely found weak evidence for discriminate validity of PTE and GTE scores. Guskey and Passaro (1994) have made similar claims as regards to construct validity. They reported that the PTE and GTE factors correspond to internal and external orientations, respectively. This dichotomy resembled locus of control and attribution theory orientations more than self-efficacy theory.

D. Toward Construct Clarification

In effort to bring some coherence to the meaning and measure of teacher efficacy, Tschannen-Moran et al. (1998) presented a multidimensional theoretical model of efficacy. This model has garnered some limited preliminary support (Goddard, Hoy, & Woolfolk Hoy, 2000; Henson, Bennett, Sienty, & Chambers, 2000) and has sparked the development of new measures of teacher efficacy to honor Bandura’s (1996) conceptualization of self-efficacy.

The model attempts to take a broader, more comprehensive look at self-efficacy as it relates to teachers and explicates a cyclical feedback loop for efficacy judgment. It is based on a five-step circular process through which efficacy beliefs are created, assessed, utilized, and then lead to new beliefs. The model is represented in Figure 1.

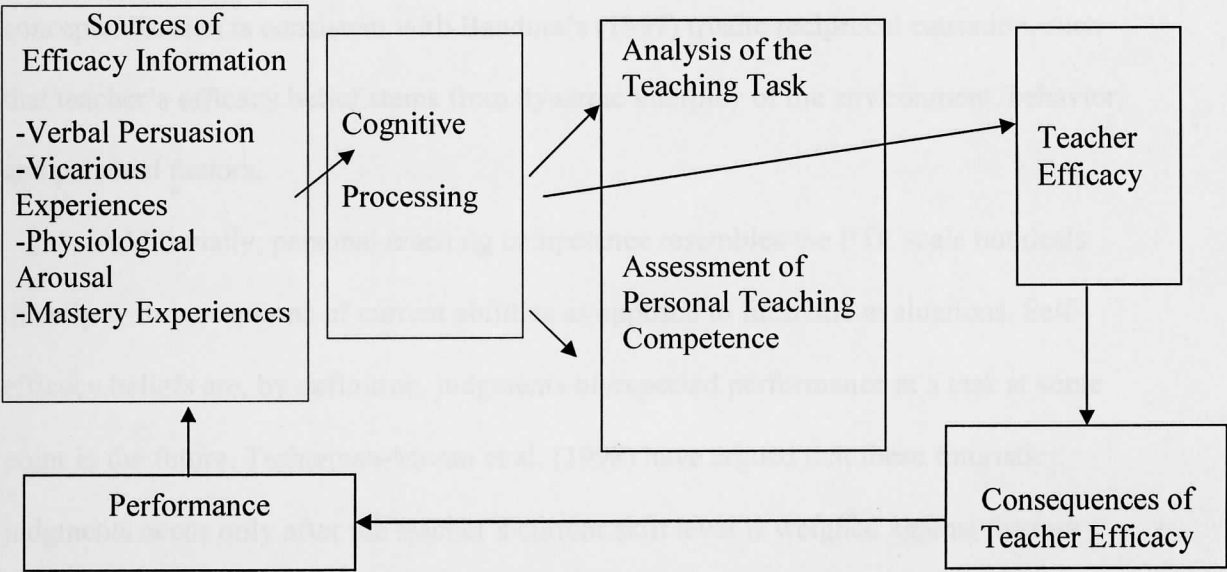


Figure 1: Multidimensional Model of Teacher Efficacy. From “Teacher Efficacy: Its Meaning and Measure,” by M. Tschannen-Moran, A., Woolfolk Hoy, and W. K. Hoy, 1998.

Bandura (1997) proposed that there are four general sources of efficacy building information; verbal persuasion, vicarious experiences, physiological arousal, and mastery experiences. Of these, mastery experiences are likely the most powerful influence in fostering efficacy. These sources are considered to provide a backdrop for the mechanisms of cognitive processing which lead to efficacy in teachers (Tschannen-Moran et al., 1998)

Tschannen-Moran et al. (1998) also argued that teacher efficacy actually is a joint, simultaneous function of teacher's analysis of the teaching task and his/her assessment of his/her personal teaching competence or skill. The task analysis evaluates the specific elements of a teaching situation. Although similar to GTE, the task analysis is more specific and invokes elements that can both help and hinder teaching. This conceptualization is consistent with Bandura's (1997) triadic reciprocal causation, such that teacher's efficacy belief stems from dynamic interplay of the environment, behavior, and personal factors.

Additionally, personal teaching competence resembles the PTE scale but deals directly with perceptions of current abilities as opposed to futuristic evaluations. Self-efficacy beliefs are, by definition, judgments of expected performance at a task at some point in the future. Tschannen-Moran et al. (1998) have argued that these futuristic judgments occur only after the teacher's current skill level is weighed against the task analysis. These two processes, task analysis and assessment of competence, are proposed to occur simultaneously and in light of each other, eventually resulting in an efficacy belief held by the teacher for the given context. This belief is then parlayed in to the goals, effort, and persistence teachers employ which in turn impact their performance.

The resulting performance then serves as a mastery experience in future efficacy judgments.

The teacher efficacy model also holds that teacher efficacy beliefs should be referenced to specific tasks. Pajares (1996) observed that self-efficacy judgments are most consistent with Bandura's (1997) theory, and most predictive of behavior, when evaluation of one's capability is matched to a specific outcome.

To measure teacher efficacy, Bandura (1997) recommended that it would be best to include; various levels of task demands, allow respondents to indicate the strength of their efficacy beliefs in light of a variety of impediments, and provide a broad range of response options. Moreover, he pointed that most measures of teacher efficacy are too general. Pajares (1996) noted that developing measures that are highly specific or highly general may pose problems for researchers and could also affect the predicative power beyond the specific skills and contexts being measured.

The Tschannen-Moran et al. (1998) model of teacher efficacy suggests that a valid measure of teacher efficacy must assess both personal competence and an analysis of the task in terms of the resources and constraints in particular teaching contexts.

As shown in Figure 1, the model is based on a five-step circular process through which efficacy beliefs are created, assessed, utilized, and then lead to new beliefs. The sources of efficacy beliefs are considered to provide a backdrop for the mechanisms of cognitive processing, which lead to efficacy in teachers. Cognitive processing in this model is referred to as a combined examination and evaluation of the task to be completed (task analysis) and the assessment of the individual's personal competence. The resulting judgment regarding the ability to plan and execute actions necessary to

achieve the desired outcome is the individual's teaching efficacy. This belief is then paralyed in to the goals, effort, and persistence teachers employ which in turn impact their performance. The resulting performance then serves as a mastery experience in future efficacy judgments.

Using the model shown in Figure 1, Tschannen-Moran and Woolfolk Hoy (2001) proposed a new measure of teacher efficacy. In this measure, both dimensions of the teacher efficacy judgment- personal competence and analysis of the task- are tapped. These researchers developed a measure of teacher efficacy that assessed critical tasks associated with teaching in the domains of engagement, classroom management, and instructional practices. The measure was constructed with the aid of teachers enrolled in a seminar on self-efficacy in teaching and learning.

Tshannen-Moran and Woolfolk-Hoy (2001) consider the new measure to be superior to previous assessments of efficacy for two reasons. First, it has demonstrated a unified and stable factor structure. Second, it assesses the broad range of important teaching tasks without being too specific that it cannot be used to compare across subjects, levels, or school contexts. Additionally, the three-factor structure of the measure enables researchers to identify specific areas of concern in teachers and relationships between these domains of teaching tasks, teacher performance outcomes, and student achievement.

E. The Power of Teacher Efficacy

Pajares (1992), based on the works of Bandura (1986), concluded that “beliefs are the best indicators of the decisions individuals make throughout their lives” (p. 307). It follows that teachers’ beliefs about their personal teaching abilities would be a key indicator of teacher behavior, decisions, and organization of their classroom environment. Furthermore, Pajares (1992) remarked that teacher efficacy has had powerful predictive powers.

The existence and maintenance of high positive teacher efficacy in educators appears to be vital to the existence of successful classrooms and schools (Tschannen-Moran et al., 1998). People who believe in their own abilities as teachers (high personal efficacy) and in teachers as a significant influence on students (high general efficacy) tend to have classrooms that are well run (Ashton, Webb, & Doda, 1983), and have students with higher achievement (Ross, 1992).

Research to date emphasizes the important role efficacy plays in teaching practice. The majority of research on teachers’ efficacy has utilized correlation analysis which precludes any claims of causality or direction of the relationship observed. The following sections highlight the power of teacher efficacy in several areas.

1. Student Achievement

McLaughlin and Marsh (1978) were among the first researchers to put forth the extended causal chain from teacher efficacy to student achievement. They proposed that a teacher’s level of efficacy will influence teacher’s behavior which will in turn affect the behavior of the students which hereafter leads to changes in student achievement levels.

Given the educational value of the teacher efficacy construct, many researchers used different scales to assess teacher efficacy and investigate its relationship to students' achievements. Some researchers using the Teacher Efficacy Scale (Gibson & Dembo, 1984) have found that the proposed two dimensions of teacher efficacy have had differential effects on teacher practice and student outcomes. Specifically, teachers with positive personal teacher efficacy have demonstrated an increased willingness to experiment in the classroom with various strategies and curriculum ideas, and have students with higher scores on language arts achievement tests (Podell & Soodak, 1993; Tschannen-Moran et al., 1998).

Along similar lines, Tracz and Gibson (1986) used the Teacher Efficacy Scale (TES) on 14 teachers, grades 4-6, at two schools. Teacher allocation of time, student engagement, and student achievement were measured. Means and standard deviations and correlations among variables for teacher efficacy, teacher academic focus, student engagement rates and achievement were derived. Personal teaching efficacy correlated positively with reading achievement and whole class instruction and negatively with small group instruction. Teaching efficacy correlated significantly with language and mathematics achievement.

Anderson and colleagues (1988) conducted a comparison study in which two groups of teachers were compared based on their levels of personal teaching efficacy. The groups were formed by classifying the teachers with the highest and lowest levels of personal teaching efficacy, as measured using the Teacher Efficacy Scale. The data collected in the study were analyzed using correlation and multiple regressions in attempt to determine the variables best accounted for student achievement. The analyses revealed

that teacher efficacy contributed to student achievement in language arts and social studies, as well as to student levels of efficacy for achievement. Moreover, it was determined that the level of personal teaching efficacy held at the beginning of the school year by the teacher had a significant effect on the development of efficacy in the students and their achievement.

Teacher efficacy has also been related to non-academic student outcomes such as; increased motivation to learn in students, higher self-perception, and better self-management (Rose & Medway, 1981; Ross, 1994; Woolfolk, Rosoff, & Hoy, 1990). Anderson et al. (1988) found that teacher efficacy was related to student efficacy for achievement. Strong positive correlations were found between teacher efficacy and student perceptions of ability student self efficacy (Ashton, 1984)

2. Teacher Outcomes

Teacher efficacy as a belief is expected to guide teachers in their behaviors, decisions, and motivation with regard to teaching. Teacher efficacy has been related to high expectations for students (Allinder, 1995; Ashton et al., 1983; Dembo & Gibson, 1985, Ross, 1994), the use of behaviors known to foster academic achievement (Ross, 1992; Woolfolk et al., 1990), and the types of decisions teachers make with regard to student needs (Soodak & Podell, 1993; Woolfolk et al., 1990).

There is an important relationship between teacher efficacy and the motivation to teach (Ashton & Webb, 1986; Tschannen-Moran et al., 1998). Teachers with high levels of teacher efficacy also demonstrate a love or passion for teaching that impacts their practice as teachers (Dembo & Gibson, 1985; Woolfolk et al., 1990). In addition, teacher

efficacy has been linked to a great commitment to the teaching profession as well as job satisfaction (Parkay et al., 1986; Trentham et al., 1985)

Teachers with higher levels of teacher efficacy have been found to have higher expectations for their students (Allinder, 1994; Ross, 1994). Thus, teachers with higher personal teaching efficacy and general teaching efficacy increased the end of the year goals for their students more than their less efficacious peers. Teachers with higher general teaching efficacy also set more ambitious goals for their students and affected significantly greater academic growth in their students.

Teaching efficacy has also been related to specific instructional behaviors performed by teachers known to foster academic achievement (Ashton & Webb, 1984; Berman et al., 1977). Such behaviors include maintaining on-task behavior in students, and concentrating on academic instruction (Ashton et al., 1983; Dembo & Gibson, 1985).

Teachers with a high sense of efficacy have demonstrated persistence when faced with student failure and have been identified as effective problem solvers with regard to classroom management (Dembo & Gibson, 1985; Woolfolk et al., 1990). Teacher efficacy beliefs are related to the decisions teachers make with regard to use of time and classroom management (Gibson & Dembo, 1984; Woolfolk et al., 1990).

3. Novice versus Experienced Teachers

Some agreement about major problems of beginning (Novice) teachers has, in fact, been shown in the literature. Veenman (1984) summarized such problems identified in 83 studies (post 1960) of beginning elementary and secondary teachers. Veenman reported that classroom discipline is generally perceived by beginning teachers to be the most serious problem, followed in descending order by problems in motivating students,

dealing with individual differences, assessing students' work, parent relations, and other concerns. He also suggested that perceptions of problems may vary according to certain personal and situational problems.

The beginning years of teaching can be very challenging. Novice teachers (< 5 years of experience) who exhibit a higher sense of efficacy are more likely to persist and remain in the profession. Education, experience, and support can help novice teachers feel more efficacious and be more effective teachers.

There is evidence that teachers' sense of efficacy varies with experience (Gibson & Brown, 1982). Gibson and Brown analyzed differences in teacher efficacy and personal teaching efficacy patterns in relation to levels of professional training and teaching experience. They administered the Teacher Efficacy Scale to pre-service teachers at different stages of training and to in-service teachers with varying years of experience. The pre-service teachers with the least amount of training demonstrated the least personal teaching efficacy, indicating that they were not confident about their teaching skills. When the mean scores were compared among groups of pre-service teachers with increasing levels of coursework and teaching experience, personal efficacy scores increased with more education then decreased for the group completing their final semester of student teaching. It may be that assuming responsibility for classroom instruction for the first time during student teaching challenges their confidence in their abilities. Beginning teachers had higher personal teaching efficacy scores than the student teaching group. These scores increased from 5 to 10 years of experience, then decreased with more time spent in the profession.

While pre-service teachers with the least amount of training demonstrated the least confidence in their teaching skills, they had the highest teaching efficacy scores among all teachers, indicating a strong idealistic belief that they could overcome external factors by good teaching. In general, teaching efficacy scores decreased with experience. This decrease, which occurred across groups of pre-service and experienced teachers, as well as the moderate negative correlation of efficacy with years of teaching experience ($r = -.23$), indicate that something in the experience of teaching works against developing a sense of efficacy. That is, even if teachers gain confidence in their teaching skills, they may become less confident that good teaching will enable students to learn.

F. Further Issues Related to Teacher Efficacy

Teachers have complained that their training does not prepare them to deal with the realities of the classroom. These teachers have little or no preparation for the different concerns and issues that the new social context presents. Therefore, teachers develop feelings of inadequacy when they realize that they do not have the knowledge or skills to deal with the situations they face.

Ashton et. al (1983) believe that teachers need to learn how to analyze the specific aspects of their teaching so that they can identify the sources of their sense of inefficacy. Dealing with different instructional learners and instructional strategies, parent/professional relations, and curriculum models are some of the skills that could help them solve problems and prevent them from developing a sense of helplessness.

According to Gibson and Dembo (1985), systematic feedback on improved program implementation can be seen as providing teachers with information on their performance accomplishments-referred to as enactive mastery by Bandura- which is a

powerful influence on the development of self-efficacy. The teachers' enhanced perceptions of self-efficacy, in turn, are seen to contribute to the development of intrinsic interest and motivation to effectively implement and maintain the innovation. It is logical to say that if teachers were provided with sufficient training and administrative support, they will be able to acquire the knowledge and skills required to apply innovative educational practices.

One of the important questions regarding teacher efficacy is how organizational factors increase or decrease the efficacy of participants in an organization. Fuller, Wood, Rapoport, and Dornbusch (1982) raised some important conceptual issues regarding the relationship between performance (personal teaching) efficacy and organizational efficacy.

According to Buhr et al. (1983), teachers judge their sense of efficacy in terms of how effective they perceive themselves in relation to other teachers. Thus, it is important that they acquire accurate information to make their assessment. Unfortunately, most school organizations function in a way that maintains role performance invisibility. In other words, teachers perform their work in isolation from others in the school. Miles (1965) reported that school organizations also help in maintaining a low interdependence. That is, a teacher's success or failure often does not have much effect on the behavior of other teachers. Both of these factors, performance invisibility and low interdependence, contribute to teacher's sense of isolation. Moreover, Farber and Miller's (1981) investigation of teacher burnout indicated that much of the teachers' dissatisfaction is related to school organizational factors that lead to lack of "psychological sense of

community- a lack that produces feelings on the part of teachers of both isolation and inconsequentiality” (p. 238).

Finally, a major source of teachers’ low efficacy is their relation with parents of low-achieving students (Ashton et al., 1983). Teachers become frustrated when parents do not appear to take enough interest in the school program or appreciate their efforts in the classroom. As a result, teachers often reduce their contact with parents or stop communicating with them altogether.

CHAPTER 3

METHODOLOGY

A. Sample

Three main criteria were considered as the main determinants for the selection of the schools for the present research. The first criterion was that the schools had to be owned and run by Emirates. The second criterion was teachers who taught English in the elementary departments should be non Emirates. The third was schools had to be using the Harcourt Collections Series for the English Reading curriculum. Hence, a judgmental sampling was used to select private schools based on the afore-mentioned criteria to check the effect of the Arab culture on managing the schools as well as to check the efficacy of international teachers when supervised by Arabs. Four schools were contacted but only two accepted to run the survey. Thus, one school in Mamzar was established 30 years ago, whereas the other located in Jumeirah was founded eight years ago.

A census of all elementary English teachers ($N= 42$) from grades 1 till 5 from the two schools were selected. The old school had eighteen teachers who in turn had two supervisors, one for grades 1 till 3 and another for grades 4 and 5. On the other hand, the

new school had 24 teachers with just one supervisor for the whole school. All supervisors were contacted as well.

Ninety five percent of the student body constituted of Emirates and five percent of other nationalities mainly Arabs. English was their second language even though the books used were designed for native speakers. Students from grades 1 till 3 in both schools followed the home-based system. However, in the Mamzar school students in grades 4 and 5 have one teacher for every subject. Students are divided into different sections according to gender when they reach grade 4 in the Mamzar school whereas in the Jumeirah school it is applied once the students reach grade 5. The majority of the students in both schools are of a high socioeconomic status.

B. Procedure

Formal letters were addressed to the school's principal and supervisors, respectively, so that the current research could take place in their schools (See Appendix A). Once the approval was given by the school's principal, all teachers concerned were notified to meet with the researcher at a given time.

An interview was conducted with every teacher separately. The teacher was then given 20 minutes to fill in the first two pages of the questionnaire (See Appendix B), and then collected directly by the researcher to ensure the confidentiality of the responses.

Later on, teachers of the same grade level were called for a meeting, with the presence of the supervisor, to discuss the procedure of how to administer the same reading assessment to the students. Students of all grade levels were given 30 minutes to complete the test. Teachers were asked to give one point for each correct response. Once that was done, each teacher had to fill in the spreadsheet by indicating the gender of

every student and writing the scores that the student obtained for each section. Finally, a total score out of 20 was calculated by adding the scores of these three sections. All special needs or remedial students were excluded because such students are taught by a different teacher and do not attend the main stream classes during the English period. The completed students' scores spreadsheet was attached to the first two pages of the questionnaire for every teacher. To avoid any miscalculations, the researcher collected all the reading tests and cross checked the scores on the students' tests with those written by the teacher on the spreadsheet.

An interview was conducted with the supervisors (N=3) in both schools. Each supervisor was asked three questions about the teacher's performance related to students' engagement, classroom management, and instructional practices. These categories were already part of the school's evaluation scheme that the supervisor employed while observing teachers. Nevertheless, the researcher defined the three key terms to avoid any misinterpretation. Every teacher's performance was rated on a 5-point Likert scale with one being "poor" and five being "excellent" on the three questions (See Appendix C).

The research was conducted almost at the end of the academic year, so the supervisors had a clear notion of every teacher's capabilities. Each teacher was already observed and evaluated during that time, however, the majority of the teachers were observed only once and for a period of time that did not exceed 15 minutes. Hence, the supervisor did not answer the questions spontaneously, but rather they based their responses on their own teacher observation checklists. As a result, every teacher had three scores, one for each question asked. Then an average score was calculated for every teacher.

C. Limitations

Due to time and cost constraints, only two schools were included in the study. To overcome that, all elementary teachers who taught English within both schools were interviewed. Another limitation was that the reading test was administered by the teacher alone. This could be avoided by having the researcher be the one to administer the test or to be present in class during that time.

Moreover, scores could be altered by the teacher just to show that her class did quite well and that she is in control of the subject taught. Hence, the researcher collected all the corrected test papers from teachers to double check the scores and then cross checked the scores on the test papers with the scores on the spreadsheet.

Many teachers had difficulty rating themselves on the teacher efficacy scale in general and on certain items in particular. The common question asked was whether they should rate themselves in isolation as professionals irrespective of the school and its environment and culture. To them, there is a cultural clash between their own background and the school's ethos. Hence, directions stated in the questionnaire should address that issue by stating a time frame and by asking teachers to consider their rating in the present situation. This was clarified due to the presence of the researcher during the time the teachers were completing the questionnaire.

Teachers stopped at items 14 and 22 to point out that parent's involvement in the school is very different than what they were used to in previous schools. This might have had an effect on their rating of these two items.

D. Instrument

Three different instruments were used in this study, one for teachers, another for students, and a third for supervisors. The teacher instrument used was divided into three sections demographic, efficacy scale, and students' scores. The demographic part contained six questions related to the teachers nationality, age, gender, years of experience, educational background, number of workshops attended in the present year, and whether the administration emphasized the importance of the ideas presented in such workshops.

The second part of the questionnaire was the Teachers' Sense of Efficacy Scale (a.k.a. Ohio State Teacher Efficacy Scale -OSTES), which was developed by Tschannen-Moran and Woolfolk Hoy in reference to the model shown in Figure 1. They sought to develop the OSTES as an instrument that possessed correspondence to the tasks that teachers faced in school. Furthermore, they developed and added their own items as part of a graduate seminar in teacher efficacy. Focus was on inclusion of 24 statements representative of frequent teacher activities such as student engagement (items 1, 2 4, 6, 9, 12, 14, & 22), instructional strategies (items 7, 10, 11, 17, 18, 20, 23, & 24), and classroom management (items 3, 5, 8, 13, 15, 16, 19, & 21). Following Bandura's lead, the OSTES employs a 9-point Likert scale from "nothing" to "a great deal".

As for assessing the students' reading achievement, the end-of-selection part, also known as the "A" pages, at the end of the Harcourt Practice Book for each grade level was used as a tool. Teachers had to fill in a scoring table for their own class. The spreadsheet was divided into six columns; student number, gender, vocabulary, comprehension, open- ended, and total score.

Teachers and students were familiar with the assessment tool since it was part of the syllabus. However, none of the teachers in both schools had ever used it as a test but rather as a class work exercise or as a homework assignment and it was never scored.

The standardized tool constituted of 20 questions divided into three categories; vocabulary, comprehension, and open ended questions. The first 18 questions were multiple-choice with four possible answers each. The last two questions were open ended whereby the student had to answer in complete sentences. This was applicable to all grade levels except for grade 1. The total score for grade 1 was out of 10 with 5 questions for the vocabulary, 4 for comprehension and 1 for open ended. As for grades 2 till 5, each grade level had a different distribution for the first 18 items. For example, Grade 2 had 5 vocabulary questions and 13 comprehension; Grade 3 and Grade 5 each had 6 vocabulary and 12 comprehension; Grade 4 had 5 vocabulary and 13 comprehension. So in order to have a uniform manner for scoring the students' results, the sections were weighed the same for all grade levels by having the highest weight for the comprehension section followed by the vocabulary part and then the open ended questions with 13, 5, and 2 as the coefficients respectively. The student's vocabulary score is based on his/her knowledge of the key word's definition whereas the comprehension part is related to the understanding of all the reading skills that were introduced and reviewed in the related story. As for the open ended questions, they are usually considered difficult because the student has to use his/her writing skills in that part.

A third instrument was made up of three questions related to the OSTES subscales. Every supervisor was asked to answer the questions by rating each teacher's

performance on a Likert scale from 1 to 5, with 1 being “poor” and 5 being “excellent” (See Appendix C).

E. Testing the Hypotheses

H1 Different demographic characteristics affect teachers’ sense of efficacy.

To test this hypothesis analysis of variance (ANOVA) test will be run using SPSS version 10 to explore any significant differences of teachers’ self efficacy across demographic variables such as schools they are teaching at, grade level, nationality, experience, and educational background. Furthermore, multiple comparisons (Post Hoc analysis) will be run to check for paired differences across individual categories.

H 2 Experienced teachers have a higher sense of efficacy than novice teachers.

Independent t-test will be run to investigate the sense of efficacy differences between the two groups of teachers, novice and experienced.

H 3 The higher the supervisor’s evaluation scores on teacher efficacy the higher the teacher’s sense of efficacy.

Two tests will be conducted to verify this hypothesis. First, an ANOVA test will be used to check for differences of supervisors’ ratings across schools, teachers’ nationality, educational background, teachers’ years of experience, and grade level. Multiple comparisons will be run as well to depict individual differences across the different categories. Second, a paired t-test and correlation analysis will be run to check for the relationship between supervisors’ evaluation scores and the teachers’ ratings on efficacy.

H 4 The higher the teachers’ sense of efficacy the higher the students’ reading achievement.

One- way analysis of variance will be run to test for the difference of the students’ average scores across the quartiles of each efficacy subscale.

CHAPTER 4
RESULTS AND INTERPRETATIONS

A. Respondents' Profile

The respondents who participated in the study were grouped into three; teachers, students, and supervisors. Descriptive information about each of the groups were portrayed as follows:

1. Teachers

Forty-two female teachers participated in this research, 18 from Maricao and 24 from Juncos. The teacher distribution varied from grade 1 with 5 teachers, 10 teachers for grade 2, 9 for grade 3, 10 for grade 4, 6 for grade 5, and 7 taught grade 5.

The majority of the teachers (15.7 percent; N= 14) were Puerto Rican. The remaining teachers were of different nationalities spread as follows: 21.4% European (N= 9), 19.5% American (N= 8), 17% Indian (N= 7), and 4.8% African (N= 2).

Teachers who held a degree in education were more than fifty percent (52.4%), 4.8% held a degree in Psychology and 42.9% in other fields such as English Literature, Natural Sciences, Marketing, and a diversity of other specialties unrelated to the subject taught.

During the previous year, 23.8% of the teachers did not attend any workshops offered by the school. Of the remaining 76.2% who had attended workshops, 24.6% believe that the administration did not encourage the incorporation of workshop topics in their

CHAPTER 4

RESULTS AND INTERPRETATIONS

A. Respondents' Profile

The respondents who participated in the study were grouped into three; teachers, students, and supervisors. Descriptive information about each of the groups were portrayed as follows:

1. Teachers

Forty two female teachers participated in this research, 18 from Mamzar and 24 from Jumeirah. The teacher distribution varied from grades 1 till 5 having 10 teachers for grade 1, 9 for grade2, 10 for grade 3, 6 for grade 4, and 7 taught grade 5.

The majority of the teachers (35.7 percent; N= 14) were Arabs but non Emirates. The remaining teachers were of different nationalities spread as follows: 21.4% European (N=9), 19% American (N= 8), 19% Indian (N= 8), and 4.8% African (N= 2).

Teachers who held a degree in education were more than fifty percent (52.4%), 4.8% held a degree in Psychology and 42.9% in other fields such as English Literature, Natural Sciences, Marketing, and a diversity of other specialties unrelated to the subject taught.

During the present year, 23.8% of the teachers did not attend any workshops offered by the school. Of the remaining 76.2% who had attended workshops, 28.6% believe that the administration does not emphasize on the incorporation of workshop ideas in their

teaching instructions. All forty two teachers assured the researcher that no follow up sessions were implemented to reinforce the implementation of the new instructional practices presented in the workshop.

The average age of the teachers was 33.71 years with a 7.88 years standard deviation. On the other hand, the average number of teaching experience for the teachers was 8.66 years with a standard deviation of 5.41 years. Specifically, 13 teachers had either five or less years of experience and were classified as “Novice” teachers. The remaining 29 were labeled as “Experienced” teachers.

2. Students

The total number of students that sat for the test in both schools amounted to 799, of which 386 were females and 413 were males. Three hundred thirty nine students were enrolled in Mamzar.

The number of students per class ranged from 12 as a minimum to 25 as a maximum with an average of 19. Grades 1 till 3 were homeroom classes having an average of 9 female students and 10 male students per class. This distribution was done intentionally to have a more or less equal numbers of females and males in every class rather than distributing them according to their average grades. In Mamzar, Grades 4 and 5 students were separated according to gender. That is, the whole class was either all females or all males. The same was applicable for Jumairah, but only for the fifth grade. Once the students were separated they had only one teacher for every subject taught unlike the homeroom based classes where the teacher is responsible for the three main subjects in her/his class; Mathematics, English and Science. In addition, all remedial students were

not given any scores on the reading test and that is why the researcher did not consider these students as part of the study.

Table 1
The Averages of the Students’ Scores on their Reading Tests in Mamzar and Jumeirah Schools.

GRADE	VOCAB./ 5	COMP. /13	OPEN ENDED/ 2	TOTAL SCORE/20	SD for TOTAL
1	3. 8690	9.2710	1.3190	14.4570	1.2975
2	3.6611	8.9378	1.0078	13.6067	3.0154
3	4.11	7.9610	1.2170	13.2900	1.7452
4	3.7783	8.8317	1.3800	13.9883	1.8611
5	3.93	9.1443	0.8796	13.9543	2.5347
Average	3.879	8.8038	1.1635	13.8462	2.0878

Table 1 displays the students’ average scores per grade level in both schools on every section of the reading test. As shown, grade 2 scored the lowest on vocabulary whereas grade 3 scored the highest. While grade 3 scored the lowest on comprehension, grade 1 scored the highest. As for the open ended section, grade 5 scored the lowest but grade 4 scored the highest. The total average was out of 20 having grade 3 with the lowest score and grade 1 had the highest score.

An ANOVA was run to explore the existence of any significant difference of students’ averages on vocabulary, comprehension, and open ended questions across grade levels. The average scores of students were not significantly different across schools,

grade levels, or even teachers' experience. Yet, the vocabulary average score was significantly lower for the teachers with psychology majors than others ($p\text{-value} = 0.029$). The students who were taught by Arabs scored significantly higher on the whole reading test when compared to those taught by American teachers ($p\text{-value} = 0.038$). As for the open ended section, multiple comparison of the ANOVA test showed that students taught by American teachers scored significantly lower than the students who had Arab ($p\text{-value} = 0.018$) or Indian ($p\text{-value} = 0.022$) teachers. Yet, no significant difference was found across the other nationalities.

3. Supervisors

Three supervisors participated in the study, two from the Mamzar and one from Jumeirah. At the Mamzar school, one supervisor, who had eight years of experience and was of a Pakistani origin, was in charge for grades one till three for all main subjects. The other supervisor was responsible for only grades 4 and 5. The latter was an Arab and had 10 years of experience. As for Jumeirah, a German supervisor is responsible for the English curriculum for the whole school. She had approximately 15 years of experience.

All three supervisors rated the teachers' performances in their own departments based on three categories: student engagement, instructional strategies, and classroom management. Tables 2 and 3 show the rating scores of every individual teacher in both schools. Each teacher received a score out of 5 per category as well as a total score as a sum of all three categories. Finally, an average score was calculated for every single teacher.

The frequencies and the percentages of the supervisors' ratings of the teachers' performances on student engagement, instructional strategies, and classroom

management were then calculated for all teachers in both schools. The results are shown in tables 2, 3, and 4 below

Table 2
Supervisors’ Ratings of Teachers on Student Engagement.

VALID RATINGS	FREQUENCY	PERCENTAGE
Fair	4	9.5
Good	13	31.0
Very Good	14	33.3
Excellent	11	26.2
Total	42	100.0

Based on an ANOVA test, these ratings were not significantly different across schools. Teacher’s nationality, educational background, years of experience, and grade level also did not show any significant difference (p-value > 0.05).

Table 3
Supervisors’ Ratings of Teachers on Instructional Strategies.

VALID RATINGS	FREQUENCY	PERCENTAGE
Poor	1	2.4
Fair	4	9.5
Good	16	38.1
Very Good	14	33.3
Excellent	7	16.7
Total	42	100.0

Again, when a one-way ANOVA test was run these ratings were not significantly different across schools, teachers’ educational background, years of experience or grade level. Yet, a significant difference was noted across nationalities. Europeans and Americans were rated significantly higher as per their supervisors (p-value= 0.033 and 0.039 respectively), than the Arabs on their instructional strategies.

Table 4
Supervisors’ Rating of Teachers on Classroom Management

VALID RATINGS	FREQUENCY	PERCENTAGE
Poor	1	2.4
Fair	3	7.1
Good	11	26.2
Very Good	18	42.9
Excellent	9	21.4
Total	42	100.0

Here too, these ratings were not significantly different across schools, teacher’s nationality, educational background, years of experience or grade level (p-value > 0.05).

Amazingly, the Americans rated themselves significantly lower than the Arabs, Indians and Europeans on instructional strategies and on student engagement on the teacher efficacy scale. Hence, there is a clear contradiction between the supervisors’ perception of their teachers and that of the teachers’ own perceptions.

Interviews with teachers and supervisors were conducted in part to help explain the study findings and in another part to discover factors that might influence teachers’ feelings and efficacy. Accordingly, the supervisors and the teachers confirmed that a one

time classroom observation is done for every teacher. As a consequence, the teacher receives a checklist from the supervisor to show how well they performed. Since the supervisor has many teachers to observe, in addition to other responsibilities, a teacher’s performance evaluation is based on a single observation throughout the year. The teachers assured the researcher that the supervisor’s feedback is portrayed only in the form of a checklist and not on a one to one discussion. Only when there is a complaint voiced by a parent that the supervisor pays a visit to the classroom. This shows that there is a lack of communication between the supervisors and the teachers and that may be why the scores given by the two parties are so contradictory.

B. Findings

A reliability test was run on the whole as well as on all the sections of the teacher efficacy scale found in the questionnaire. The following results were obtained as shown in the table below.

Table 5

Reliability Results of Teacher Efficacy Scale as a Whole and its Subscales

	Mean	Variance	Cronbach Alpha
OSTES	7.2588	0.2184	0.9554
Student Engagement	6.9906	0.1511	0.8982
Classroom Management	7.5305	0.1308	0.9093
Instructional Strategies	7.3628	0.2950	0.8892

As shown in the table above, the reliability results, Cronbach Alpha, turned out to be very high (> 0.9) for the teacher efficacy scale used. Therefore, the average scores of the items that described each category of efficacy were calculated. These averages will be used for correlations and regressions to explore the relationships between teachers' efficacy and all other variables.

The average scores were then distributed across schools, grades, teacher's nationality, educational background or specialization, and years of experience as shown here forth. Then a one-way ANOVA test was run for every variable.

H 1 Different demographic characteristics affect teacher's sense of efficacy.

Table 6

Ratings of Teachers' Own Sense of Efficacy in Both Schools

Descriptives		N	Mean	Std. Deviation	Minimum	Maximum
Average of teacher's Student Engagement self efficacy rating	Mamzar	18	7.3274	.8511	5.63	8.50
	Al-Itihad Jumeirah	24	6.8400	1.5282	3.88	9.00
	Total	42	7.0489	1.2923	3.88	9.00
Average of teacher's classroom management self efficacy rating	Mamzar	18	7.6597	1.1575	4.75	8.88
	Al-Itihad Jumeirah	24	7.2924	1.4272	4.14	9.00
	Total	42	7.4498	1.3160	4.14	9.00
Average of teacher's Instructional strategies self efficacy rating	Mamzar	18	7.5556	.9138	6.00	8.88
	Al-Itihad Jumeirah	24	7.2388	1.2620	4.00	8.75
	Total	42	7.3746	1.1246	4.00	8.88
Average of teacher's self efficacy rating	Mamzar	18	7.5150	.8956	5.71	8.63
	Al-Itihad Jumeirah	24	7.1267	1.2922	4.46	8.83
	Total	42	7.2931	1.1433	4.46	8.83

The teachers’ mean ratings on the Teacher Sense of Efficacy Scale (TSES) and its subscales are displayed separately for every school in Table 6.

Table 7

Analysis of Variance of Teachers’ Efficacy Ratings across Mamzar and Jumeirah

Schools

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Average of teacher's Student Engagement self efficacy rating	Between Groups	2.443	1	2.443	1.480	.231
	Within Groups	66.025	40	1.651		
	Total	68.468	41			
Average of teacher's classroom management self efficacy rating	Between Groups	1.388	1	1.388	.797	.377
	Within Groups	69.621	40	1.741		
	Total	71.008	41			
Average of teacher's Instructional strategies self efficacy rating	Between Groups	1.032	1	1.032	.812	.373
	Within Groups	50.826	40	1.271		
	Total	51.857	41			
Average of teacher's self efficacy rating	Between Groups	1.551	1	1.551	1.192	.282
	Within Groups	52.040	40	1.301		
	Total	53.591	41			

By referring to Table 7, one could realize that the teachers in the Mamzar school had a consistent tendency to score slightly higher than the teachers in Jumeirah. This could be due to the organizational set up of Mamzar. However, results from an ANOVA test that compared mean differences between teacher efficacy ratings in both schools, showed that this consistent difference was not statistically significant.

Since they were all elementary teachers responsible for the same subject matter, the results are more or less similar because English elementary teachers tend to face

relatively the same challenges. Probably there would have been a difference in the ratings had there been a comparison between elementary and secondary levels.

Another variable taken into account was the grade level that the teachers were responsible for. Hence, the means of the teachers’ efficacy ratings- on the subscales and the scale as a whole- were calculated per grade level in the two schools.

Table 8

ANOVA of Average Teachers’ Efficacy across Grade Level

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Average of teacher's Student Engagement self efficacy rating	Between Groups	7.607	4	1.902	1.156	.346
	Within Groups	60.862	37	1.645		
	Total	68.468	41			
Average of teacher's classroom management self efficacy rating	Between Groups	3.925	4	.981	.541	.706
	Within Groups	67.083	37	1.813		
	Total	71.008	41			
Average of teacher's Instructional strategies self efficacy rating	Between Groups	6.375	4	1.594	1.296	.289
	Within Groups	45.483	37	1.229		
	Total	51.857	41			
Average of teacher's self efficacy rating	Between Groups	4.793	4	1.198	.908	.469
	Within Groups	48.798	37	1.319		
	Total	53.591	41			

No significant evidence was found across grade levels when a one-way ANOVA test was run. Yet, with a multiple comparison analysis (Post Hoc analysis) we could see that Grade 3 teachers significantly rated themselves higher on instructional strategies than those of Grade 1.

Table 9

Mean Percentages of Teachers of Different Nationalities on the Teachers' Efficacy Scale

This could be interpreted by how well the teachers of those grade levels work and cooperate together. It is worth noting that different responses were given when teachers were asked if they meet together on a weekly basis to share their ideas and set a plan for the forthcoming week. The majority of the teachers in Jumeirah declared that no such meetings take place, because it is either not considered a must by the administration or they never have the time to do so. On the other hand, a period in the teachers' schedules was allocated just for that purpose at Mamzar. At the beginning of the year, one teacher per grade level would be appointed as the coordinator so as to head these weekly meetings and then report the plan to the supervisor. This may be the cause for such a difference for this grade level.

To check even further, the teachers' nationalities were considered as a variable that might affect teachers' sense of efficacy. As shown in Table 9, there is a consistent tendency for Americans to rate themselves lower than the other teachers of different nationalities.

	European	8	6.7444	1.3901	3.46	8.17
Average	Asian	9	6.7778	1.3911	3.46	8.17
	Indian	6	7.5773	0.74	3.83	8.31
Teachers	Arab	23	7.5217	0.23	3.75	8.28
Efficacy	African	7	6.0476	2.853	3.33	8.22
	Total	42	7.2801	1.1433	3.36	8.23

Table 9

Mean Ratings of Teachers of Different Nationalities on the Teacher Efficacy Scale

	Nationality	N	Mean	Std. Deviation	Minimum	Maximum
Average of teacher's Student Engagement efficacy rating	European	9	7.1389	1.4756	4.25	9.00
	American	8	6.0313	1.4326	3.88	7.75
	Indian	8	7.4531	.8181	6.13	8.25
	Arab	15	7.3345	1.1196	5.00	9.00
	African	2	6.9554	1.8814	5.63	8.29
	Total	42	7.0489	1.2923	3.88	9.00
Average of teacher's classroom management efficacy rating	European	9	7.8472	.7572	6.63	9.00
	American	8	6.6875	1.3413	4.88	8.00
	Indian	8	7.6094	1.4102	4.75	8.88
	Arab	15	7.6179	1.3334	4.14	8.75
	African	2	6.8125	2.7400	4.88	8.75
	Total	42	7.4498	1.3160	4.14	9.00
Average of teacher's Instructional strategies efficacy rating	European	9	7.5694	.8708	6.38	8.63
	American	8	6.3750	1.6077	4.00	8.75
	Indian	8	7.6094	.9148	6.50	8.88
	Arab	15	7.7071	.6723	6.63	8.75
	African	2	7.0625	2.2097	5.50	8.63
	Total	42	7.3746	1.1246	4.00	8.88
Average of teachers' efficacy	European	8	6.3646	1.3903	4.46	8.17
	American	8	6.3646	1.3903	4.46	8.17
	Indian	8	7.5573	.9784	5.83	8.63
	Arab	15	7.5581	.9126	5.43	8.67
	African	2	6.9493	2.2853	5.33	8.57
	Total	42	7.2931	1.1433	4.46	8.83

Table 10

ANOVA of Average Teachers’ Efficacy across Nationalities

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Average of teacher's Student Engagement self efficacy rating	Between Groups	10.906	4	2.727	1.753	.159
	Within Groups	57.562	37	1.556		
	Total	68.468	41			
Average of teacher's classroom management self efficacy rating	Between Groups	7.510	4	1.877	1.094	.374
	Within Groups	63.498	37	1.716		
	Total	71.008	41			
Average of teacher's Instructional strategies self efficacy rating	Between Groups	10.630	4	2.657	2.385	.069
	Within Groups	41.228	37	1.114		
	Total	51.857	41			
Average of teacher's self efficacy rating	Between Groups	9.203	4	2.301	1.918	.128
	Within Groups	44.388	37	1.200		
	Total	53.591	41			

Once the means were calculated for all teachers, an ANOVA test was run to find out how teachers of different nationalities rated themselves on the teacher efficacy scale (See Table 10). Again, no significant difference was detected across teachers’ nationality. However, the multiple comparison analysis revealed that the Americans rated themselves significantly lower than their counterparts on instructional strategies. They also rated themselves lower on the student engagement efficacy (p-value < 0.05).

This was not surprising because American teachers are not trained to teach in the manner that they are expected to do so in such schools. Based on the interviews, many teachers were frustrated by the constant demand of the administration to cover the syllabus regardless of whether the students have mastered the skills taught. Another problem that these teachers were facing was the amount of worksheets and paperwork

that they were expected to complete with their students during a certain period of time. So their main focus was how to keep up with their colleagues and not to fall behind on the weekly plan. As a result, this gave them little room to experiment or even be creative with their students, and therefore perceived themselves as less efficacious in those areas.

The next step was to find out whether the teacher’s educational background had any influence on her/his sense of efficacy. Teachers’ educational attainment was divided into three categories; education, psychology, and other as shown in Table 11.

Table 11
Mean Ratings of Teachers of Different Educational Background on the Teacher Efficacy Scale

		N	Mean	Std. Deviation	Minimum	Maximum
Average of teacher's Student Engagement self efficacy rating	education	22	6.7005	1.2673	3.88	8.63
	psychology	2	6.9375	1.1490	6.13	7.75
	other	18	7.4871	1.2665	4.25	9.00
	Total	42	7.0489	1.2923	3.88	9.00
Average of teacher's classroom management self efficacy rating	education	22	7.2281	1.4190	4.14	8.75
	psychology	2	7.1250	1.0607	6.38	7.88
	other	18	7.7569	1.2031	4.75	9.00
	Total	42	7.4498	1.3160	4.14	9.00
Average of teacher's Instructional strategies self efficacy rating	education	22	7.1818	1.2851	4.00	8.88
	psychology	2	6.8750	2.1213	5.38	8.38
	other	18	7.6657	.7607	6.50	8.75
	Total	42	7.3746	1.1246	4.00	8.88
Average of teacher's self efficacy rating	education	22	7.0398	1.2325	4.46	8.63
	psychology	2	6.9792	1.4437	5.96	8.00
	other	18	7.6377	.9659	5.83	8.83
	Total	42	7.2931	1.1433	4.46	8.83

Table 12

ANOVA Average Teachers’ Efficacy across Educational Background

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Average of teacher's Student Engagement self efficacy rating	Between Groups	6.152	2	3.076	1.925	.159
	Within Groups	62.316	39	1.598		
	Total	68.468	41			
Average of teacher's classroom management self efficacy rating	Between Groups	2.991	2	1.495	.857	.432
	Within Groups	68.018	39	1.744		
	Total	71.008	41			
Average of teacher's Instructional strategies self efficacy rating	Between Groups	2.842	2	1.421	1.131	.333
	Within Groups	49.016	39	1.257		
	Total	51.857	41			
Average of teacher's self efficacy rating	Between Groups	3.746	2	1.873	1.466	.243
	Within Groups	49.845	39	1.278		
	Total	53.591	41			

An ANOVA test was run to find out the effect of teachers’ educational background on their sense of efficacy. As shown in Table 12, the results were not significant.

This could be due to the fact that knowledge alone does not ensure effective practice. Individuals must be guided by a belief in their ability to effectively use their knowledge in a given context in order to be moved into action. For example, a teacher might have read numerous articles on portfolio assessment or even attended many workshops that show the importance of such an assessment and how it is beneficial for students. The same teacher could have created one for her own class. Despite that, this teacher has never used it with any group of students, because she might have doubts about her ability to implement such measures appropriately and effectively. One can infer that the teachers whose education level is higher -which logically should make them stand out in the crowd- might become indifferent when they lack the support and

recognition needed from the administration. Perhaps these teachers have a repertoire of “proven” techniques and skills that they stick to. Another explanation may be because of the bureaucratic structure of teaching led them to learn effective strategies for coping with what they believe they cannot change.

H 2 Experienced teachers have higher sense of efficacy than novice teachers.

Table 13

Mean Scores of Novice and Experiences Teachers on the Efficacy Scale

		N	Mean	Std. Deviation
Average of teacher's Student Engagem ent self efficacy rating	Novice	13	6.6250	1.0206
	Expert	29	7.2389	1.3704
	Total	42	7.0489	1.2923
Average of teacher's classroom managem ent self efficacy rating	Novice	13	6.6827	1.2764
	Expert	29	7.7937	1.2009
	Total	42	7.4498	1.3160
Average of teacher's Instructional strategies self efficacy rating	Novice	13	6.7212	.9522
	Expert	29	7.6675	1.0846
	Total	42	7.3746	1.1246
Instructional strategies self efficacy rating	Expert	29	7.5697	1.1179
	Total	42	7.2931	1.1433

Table 13 shows the mean scores on teacher efficacy scale calculated for novice and experienced teachers.

Table 14 ANOVA Average of Teachers' Efficacy between Experienced and Novice Teachers

ANOVA Average of Teachers' Efficacy between Experienced and Novice Teachers

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Average of teacher's Student Engagement self efficacy rating	Between Groups	3.383	1	3.383	2.079	.157
	Within Groups	65.085	40	1.627		
	Total	68.468	41			
Average of teacher's classroom management self efficacy rating	Between Groups	11.080	1	11.080	7.396	.010
	Within Groups	59.928	40	1.498		
	Total	71.008	41			
Average of teacher's Instructional strategies self efficacy rating	Between Groups	8.039	1	8.039	7.338	.010
	Within Groups	43.819	40	1.095		
	Total	51.857	41			
Average of teacher's self efficacy rating	Between Groups	7.164	1	7.164	6.172	.017
	Within Groups	46.427	40	1.161		
	Total	53.591	41			

As shown in Table 14, there is a significant difference between novice and experienced teachers' ratings on classroom management, instructional strategies, and overall efficacy. This justifies the hypothesis stating that experienced teachers have higher sense of efficacy than novice teachers.

These results support Veenman's findings that beginning teachers view classroom management as quite problematic for them to deal with. The relationship between experience and teacher efficacy may be better understood by investigating socialization issues. For example, studies show that beginning teachers are first concerned with issues of survival and adequacy, and only later with mastery of teaching tasks and with their effects on students (Fuller & Brown, 1975; Pataniczek & Isaacson, 1980). As a result,

different teaching experiences may be more salient at various stages of a teacher's career development.

H 3 The higher the supervisor's evaluation scores on teacher efficacy the higher the teacher's sense of efficacy.

Since the scores of the teachers' efficacy were on a scale from 1 to 9 and that of the supervisors were from 1 to 5, a standardized score was calculated for the ratings on both scales. A paired t-test was run to check for significant differences between the scores at each efficacy level. Thus, no significant differences were found. A correlation analysis was run as well to show if the teachers' sense of efficacy is related to the supervisor's ratings. Again, no significant results were found.

The non significance in the paired t-test for standardized scores could be due to the fact that some teachers rated themselves high on one category while the supervisors rated them low on the same category causing the difference to balance out. This reveals an undercover inconsistency between the scoring of the teachers and that of the supervisors, which was confirmed by the correlation results.

As for the correlation insignificance, it shows that there is no constructive interaction between the supervisors and the teachers. Therefore, an educator/administrator cannot predict the level of the teacher's efficacy by simply reading the supervisors' ratings and vice versa.

This lack of coordination and communication was apparent in many ways. Having more than 50 percent of the teachers indicating that they either did not attend a workshop during the course of the year, or did not benefit from it, is a great sign in the lack of coordination. In other words, when teachers asked for support in certain areas such as

classroom management, these needs were not met because the supervisors either did not have the authority to set up a workshop or these needs were disregarded totally. Another point to be addressed is the fact that no proper communication channels exist between the teachers, their immediate supervisors, and the head of departments. That is, the teacher does not know what is expected of her other than the completion of the syllabus. This definitely is a double edged knife in the sense that teachers have plenty of room to be inefficient and at the same time if parents complain the supervisor approaches the teacher concerned with negative prejudgments in mind. In addition, supervisors cannot be aware of what is going on in the classroom, like in Jumeirah, when they are too distant and responsible for the whole school. In this case, it is actually not feasible for the supervisor to meet with all the teachers and find out what their needs might be.

Another interesting point to address here is that teachers did not feel threatened by the supervisors' evaluation, but this was not the case when a parent complained about a teacher to the administration. Different measures were taken when parents were dissatisfied with a particular teacher, and hence might end up losing her job.

H 4 The higher the teacher's sense of efficacy the higher the students' reading achievement.

This hypothesis was tested by running an ANOVA between the average students' scores using each of the teachers' efficacy ratings as categorized by quartiles. In other words, the data of each efficacy subscale was divided in four categories-lowest, upper lower, upper, and highest- where the cut-off points for the categories were the 25th, 50th, and 75th percentile respectively.

Interesting enough, the following interpretations are noted:

- The higher the teacher's efficacy in student engagement, the higher is the student's open ended score on the reading test.
- The higher the teacher's efficacy in classroom management, the lower is the student's score on comprehension.
- The higher the teacher's efficacy on the whole OSTE scale, the higher the student's scores on the vocabulary and open ended sections.

One can notice that the instructional strategies efficacy had no effect on students' achievement (i.e. they did not differ across the four quartiles of instructional strategies efficacy).

The open ended section in the questionnaire is the one that students hesitated to answer because it involves a higher order thinking (Bloom's Taxonomy) when compared to the vocabulary section. However, if a student is motivated to express himself/herself in any form without the fear of being criticized then he is bound to believe in himself, and therefore be daring and creative. That is, if a teacher scores high on student engagement then she will enhance these aspects which consequently lead to students scoring high on the open ended section.

The stories in the Harcourt series are frequently considered long, difficult for non native speakers, and irrelevant to the student's culture. For a teacher to be able to cover one story with all the reading skills introduced or reviewed, she will need at least two weeks to do so. During that time, she has to manage the classroom well and establish routines in order to keep the students focused on the same material for such a period of time. The comprehension part tests all the skills taught in that particular

story, so even if the teacher maintained a well managed class, it is still hard for such student to retain all the information needed to perform well on the comprehension part.

One of the major concerns voiced by the teachers was the lack of resources, materials, and time to effectively come up with interesting instructional strategies that may help them motivate or even engage the students' interest in the subject matter. As a consequence, the teachers feel that they are coping with so many obstacles that could invariably hinder the students' performance.

Admittedly, any generalizations made based on the above results need to be treated cautiously due to the limited sample size.

CHAPTER 5

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Based on Bandura's framework and the five-step circular process through which efficacy beliefs emerge, the present study was an attempt to comprehend this process and to find out the effects of teacher efficacy on students' reading achievement.

The sources of efficacy are divided into four groups; mastery experiences, vicarious experiences, verbal persuasion, and physiological arousal. Variables such as years of experience and educational background form teachers' mastery experiences. As proposed by Bandura (1997), years of experience increase teacher's sense of efficacy. Learning from other teachers and supervisors or attending workshops make up teacher's vicarious experiences. In this study, none of these seem to affect teachers' sense of efficacy which could be due to the organizational contexts of the schools. Next, feedback from teacher's colleagues or supervisors constitutes the third source, verbal persuasion. There was no empirical data to support this, but the interviews that were conducted with the teachers and the supervisors provided the researcher with a clear understanding of how effective that is on teacher's sense of efficacy. Also, verbal persuasion could cause either positive or negative physiological arousal and therefore affect teacher's efficacy.

Finally, the teacher's own emotions and readiness are considered the physiological cues that help put the teacher in a state of mind that may elicit one's own sense of efficacy. However, this was not tested in the current study.

A novice teacher who holds a large number of intense professional concerns, yet simultaneously profess a low sense of personal efficacy, may be especially vulnerable to stressful classroom realities, and therefore be at risk for professional development. Educators also need to understand better such factors as the abrupt transition from student teaching to full-time classroom instruction, which entails new responsibilities, the assumption of multiple roles, and the development of collegial relationships. Similarly, administrators should take into consideration that newly hired teachers face drastic changes when moving from one school to another, because every school has its own climate and organization. In other words, administrators should not presume that if an experienced teacher joins their school, this implies that there is no need for orientation sessions to help her/him adjust to the new environment or the culture of that particular school. This assumption is absolutely inaccurate. However, it should be taken seriously so as to ensure a smooth transition for all new in-coming teachers. Such orientation sessions do not take place in either school in the current study.

Based on the interviews that were conducted by the teachers as well as the supervisors, certain alterations could be considered for future research. Most teachers, who had attended a workshop or more during the present year, stated that the topics discussed in such workshops either did not cater for their needs or did not add to their own repertoire. Moreover, the administrators did not follow up on the implementation of

workshop topics in the classroom. So the decision was left to the teacher as to whether or not to incorporate such ideas in her classroom.

Another common concern expressed by the teachers in both schools was the lack of discipline, guides, rule and consequences for students to adhere to in the classroom, and the absence of a support system from the administration. This was a major issue for Grades 4 and 5 teachers because by law the students have to be segregated by gender. Discipline problems are more prominent among the boys' sections. Consequently, teachers spent more time managing the classroom rather than actually teaching especially in the boys' sections.

In addition, teachers mentioned that parents are only concerned with their children's grades and not with any other aspect related to the social and emotional development of their child. When the school allocates a time for parent/ teacher meetings throughout the year, only 30 percent of the parents show up. To clarify further, teachers do not receive much support from the parents. Some teachers even pointed out that the school as a whole tends to bend rules and policies just to cater for the parents' needs. Thus, teachers feel that their input in certain areas is not considered important or beneficial.

Many teachers who were interviewed stated that their schools need to introduce policies and/ or activities to help the communication process between teachers and parents and implement them across board. Because if parents know that the school is serious about its policies and that parents must adhere to them, then maybe all of the parents would attend parent/teacher conferences and take teacher's input seriously. Further, if schools introduce such policies, then administrators must provide in-service

training/workshops to guide teachers in the art of communication skills. In other words, teachers must know how to state a negative action appropriately and provide solutions to that action whether academically or socially.

The way in which school principals interact with their staff, influence school climate, and provide opportunities for decision making affects teachers' sense of efficacy. It is important for principals to consider how they can transform the often impersonal, bureaucratic school into an organization with shared goals and shared responsibilities for decision making (Ashton et al., 1983). One of the major aspects of any organization is the degree to which personnel are involved in decision making. There is evidence that teachers' sense of efficacy may be related to their participation in decision making. McLaughlin and Marsh (1978) suggested that teacher participation in decisions about projects can lead to the development of teacher's "sense of ownership" of projects.

Although organizational factors seemed to play an important role in influencing teachers' sense of efficacy and other attitudes and behaviors, future investigations will need to study such variables as to how teachers are selected in different schools and how personal variables, administrative styles, and school climate interact with organizational structures.

If school improvements depend, fundamentally, on the improvement of teaching, then ways to increase teacher motivation and capabilities should be the core processes upon which efforts to make schools more effective. Of course, the motivation and capabilities of other school personnel are important but it is what teachers know and do that make the biggest difference. In the past, staff development programs have emphasized teacher training aimed at providing knowledge and skills development. So

unless the objective of providing training to bear on improved practice, it is unrealistic to expect widespread application of new ideas and skills in actual practice. Typically, staff development programs are conducted as one-shot workshops which allow very little, if any, input from teachers. While such formats may be sufficient for training aimed at providing knowledge regarding effective practice, these workshops seldom lead to long-term change in practice when teachers return to the classroom. Furthermore, a delivery system characterized by continual monitoring of teachers' implementation of the newly acquired knowledge along with feedback to teachers regarding their implementation progress is of utmost importance. All this is needed to help change the teacher's sense of efficacy.

Teachers who believe they can make a difference - have high levels of efficacy - do make a difference (Guskey & Passaro, 1994). High efficacy teachers examine their own performance and look for ways to improve, hold high academic standards for students, insist that students remain on task, build non-threatening and friendly relationships with low-achieving students, set learning goals for students and identify strategies to attain these goals, and they expect students to achieve. Teachers who are involved in solving problems and making decisions about curriculum and instruction have a higher sense of efficacy than do teachers who work in isolation.

Below are some recommendations for future research that could help educators to better understand teacher efficacy:

- Develop school programs to help beginning teachers deal with the transition
- Provide teachers with accurate feedback regarding their performance

- Studies should further validate and refine instruments to measure teacher efficacy and investigate the relationships between teacher characteristics (i.e. gender, years of teaching experience, grade levels, and personal attributes and sense of efficacy).
- The relationship between teacher efficacy and teacher decision making especially in the area of classroom organization and management should be further examined.
- Researchers should begin to investigate possible causal relationships among variables so that intervention programs can be developed to enhance teachers' sense of efficacy.
- Efficacy beliefs are presumed to be relatively stable once set, more information is needed as to the factors that contribute to efficacy beliefs once they are established (Hoy & Woolfolk, 1990).
- If the significant effects of teachers' beliefs in their capabilities were taken seriously, it could provoke significant changes in the way teachers were prepared and supported in their early years in the profession.
- Consider the first year of teaching in any new school as an induction-year even if the teacher has many years of experience.
- Encourage collegial approaches to personal and organizational problem solving.
- Although organizational factors seem to play an important role in influencing teachers' sense of efficacy and other attitudes and behaviors, future investigations will need to study such variables as administrative styles, school climate and culture that might influence the school's organizational structures.

In conclusion, administrators need to consider several issues so as to ensure a high quality service in their schools. Cultural differences do exist between administrators, supervisors, teachers, and students when they are of different nationalities. Thus, teachers and supervisors- no matter what their educational backgrounds are- should attend constructive workshops or orientation sessions at the beginning of the scholastic year so that all parties concerned know what to expect. Another issue to keep in mind is when implementing an English program that is designed for native speakers. Certain changes should be made to minimize the cultural gap and the language barrier so that the students would benefit the most. It is also important that teachers learn more effective ways to communicate and work with parents to comprehend the students' background or culture, and therefore set their expectations accordingly.

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APPENDIX A

SAMPLES OF THE LETTERS ADDRESSED TO THE
PRINCIPALS AND SUPERVISORS

Dear Principal,

I'm a graduate student working on the thesis. The attached questionnaire will help me gather the data needed to find the effect of teachers' sense of efficacy on student achievement in reading. I have chosen your school because it uses the Harcourt Series for the English curriculum. All the results will remain anonymous. The school's name, and all those who will take part in the study, will also remain anonymous. Thank you in advance for your cooperation.

Sincerely,

Lina Francis

Dear Supervisor,

The following questionnaire aims at gathering data about teacher's efficacy and students' scores on the end-of-selection reading test. I would like to meet with the teachers individually for all grade levels from 1 to 5. Once that is done, I would then like to meet with all teachers of the same grade level. Later on, students will sit for the reading test and the test will then be corrected by either the teacher or me in case the teacher can't do that during the day.

I thank you for your cooperation and participation in this research.

Sincerely,

Lina Francis

Directions: Please answer the following questions. Your answers will remain confidential.

1. What is your nationality?

a) Egyptian

b) Asian Arab _____

c) American

d) Other _____

2. Please state your age: _____

3. Please indicate your gender: female _____ male _____

4. For how many years have you been teaching? _____ yrs

5. Indicate whether you have a degree in

a) education _____

b) psychology _____

c) other _____

6. Have you attended any workshops during the semester you?

Yes _____

No _____

If yes, does the administration emphasize the importance of incorporating

the ideas presented in the workshop in your teaching instruction?

Yes _____

No _____

APPENDIX B

SAMPLE OF THE QUESTIONNAIRE

Directions: Please answer the following questions. Your answers will remain confidential.

1. What is your nationality?

- a) European
- b) Asian/ Arab _____
- c) American
- d) African
- e) Other _____

2. Please state your age: _____

3. Please indicate your gender: female _____ male _____

4. For how many years have you been teaching? _____ yrs

5. Indicate whether you have a degree in :

- a) education
- b) psychology
- c) other _____

6. Have you attended any workshops during the present year?

Yes _____ No _____

If yes, does the administration emphasize the importance of incorporating the ideas- presented in the workshop- in your teaching instruction?

Yes _____ No _____

Teachers' Sense of Efficacy Scale¹ (long form)

Teacher Beliefs		How much can you do?								
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.		Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal				
1.	How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2.	How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4.	How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5.	To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.	How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8.	How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.	How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10.	How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12.	How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13.	How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14.	How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15.	How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16.	How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17.	How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18.	How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19.	How well can you keep a few problem students from ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20.	To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21.	How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22.	How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23.	How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24.	How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

TEACHER # _____

GRADE _____

STUDENT#	GENDER F/M	VOCAB	COMP MC	OPEN ENDED	TOTAL
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

APPENDIX C

QUESTIONS ASKED TO THE SUPERVISOR

School_____

Supervisor of Grade_____

Teacher # _____ Grade _____

Questions Related to Teacher’s Performance in Class	P	F	G	V.G	
How well does she engage her students in class?	1	2	3	4	
How well does she manage her classroom?	1	2	3	4	
How well does she implement different instructional practices?	1	2	3	4	

P= Poor

F= Fair

G= Good

V.G= Very Good

Ex= Excellent