

Teachers' Critical Thinking and Self-efficacy as Predictors of their Pedagogical Success

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ABSTRACT

Critical thinking and self-efficacy are important teacher characteristics which have received widespread attention in the recent literature on teacher education. These features have been found to influence teachers and their learners in various ways. Although research has investigated the relationship between each of these characteristics and teachers' pedagogical success, to the best knowledge of the authors, no study has been done to see which characteristic is a better predictor of teachers' pedagogical success from their student's point of view. Therefore, the purpose of this study was particularly to investigate the effect of Iranian foreign teachers' critical thinking and self-efficacy beliefs on their pedagogical success as evaluated by their students. To this end, Watson-Glaser Critical Thinking Appraisal Form A, and Teachers' Sense of Efficacy Scale were administered to 100 teachers. For each teacher, six students were also asked to complete the Characteristics of Successful Iranian Language Teachers Questionnaire. The data were analyzed through the Pearson correlation and multiple regression tests and the results showed that self-efficacy could better predict the pedagogical success of teachers. Moreover, the results indicated that among sub-constructs of self-efficacy, efficacy for instructional strategies could best predict teachers' pedagogical success. The results of this study imply the importance of self-efficacy of teachers especially for devising and using instructional strategies. Therefore, teachers need to improve their self-efficacy perceptions if they want to be viewed as more successful by their students, and teacher educators also should pay more attention to self-efficacy issues in pre-service and in-service training programs.

Key words: Critical Thinking, Self-efficacy, Pedagogical Success, Foreign Language Teachers, Teacher Training

INTRODUCTION

It is believed that good education helps to develop intelligent and informed citizens, and to many governments, well-educated and highly literate workforce paves the way for economic growth and success (Richardson & Watt, 2006; 2010). Teachers are the people who educate the young generation building the future of a nation and therefore play a major role in the achievement of educational goals (Moafian and Pishghadam, 2009), and as Akbari and Tavassoli (2014), quoting Wright, Hom, and Sanders (1997), maintain, "more can be done to improve education by improving the effectiveness of teachers than by any other single factor" (p. 28). The last few years have witnessed a considerable research interest toward the issue of foreign/second language teacher characteristics and the ways in which these characteristics may influence the learning outcomes of learners (Alvandi, Mehrdad & Karimi, 2015).

One teacher characteristic which can help teachers to do more effective teaching and has absorbed researchers' interest is teacher's critical thinking ability, an attribute which

along with the development of technical competence, according to Korthagen and Wubbels (1995) should be among the goals of teacher education programs.

Another characteristic of teachers in general and language teachers in particular, which has received widespread research attention, is self-efficacy. Teachers' sense of efficacy has also been associated with student achievement, motivation and students' own sense of efficacy. In addition, it has been found that teachers with higher efficacy judgments tend to be more open to new ideas, more willing to experiment with new methods to better meet the needs of their students (Hoy & Spero, 2005).

Despite the importance of factors which may influence learners' views toward successful teachers, to the best knowledge of the researchers, the role of teachers' critical thinking and self-efficacy in predicting their pedagogical success from their students' point of view has not received much attention, especially in foreign language contexts. Moreover, although the literature refers to each of these factors as characteristics which enable the teachers to achieve their educational aims;

it is not clear which one can better guarantee the effectiveness of the teaching practice. Therefore, this research aimed at exploring the relationship between Iranian English language (EFL) teachers' critical thinking abilities, their self-efficacy and their pedagogical success as evaluated by their learners to find out which of these two, and their sub-constructs, can better predict teachers' pedagogical success.

Research Questions

Noticing the gap in the knowledge on the relationship between teachers' characteristics including critical thinking and self-efficacy, and their pedagogical success from their students' point of view, this cross-sectional correlational study was conducted to find the answer to the following research questions:

1. Are there any significant relationships between teachers' critical thinking and self-efficacy beliefs, and their pedagogical success as evaluated by their students?
2. Is there any significant difference between Iranian language teachers' critical thinking and self-efficacy in predicting their pedagogical success as evaluated by their students?
3. Are there any significant relationships between the components of teachers' critical thinking, or self-efficacy beliefs, and their pedagogical success as evaluated by their students?
4. Is there any significant difference between the components of Iranian language teachers' critical thinking, or self-efficacy in predicting their pedagogical success as evaluated by their students?

REVIEW OF THE LITERATURE

Over the years, education has become one of the most essential activities in the human beings' lives and teachers are regarded as the key elements for students' academic success and development because they play a major role in learners' cognitive, emotional and social promotion. As Veisi, Azizifar, Gowhary, and Jamalinesari (2015) contend, constant changes and rapid growth of education in the past two decades have led to an increased workload for teachers. In the era of standards and accountability (Onwuegbuzie et al., 2007), educational systems try to pay more attention to the expectations of the students as their major customers of the characteristics of effective teachers (Sander, Stevenson, King & Coates, 2000), an attempt which has led to a rather recent line of research on what is called teacher success where scholars aim to characterize successful teachers and investigate the factors which can influence their pedagogical success (Roohani & Darvishi, 2015). Along these lines, Strange, Tucker and Hindman (2004), writing of qualities of effective teachers, refer to professional and personal aspects of the teacher. Professional aspects include verbal ability, content knowledge, educational coursework, teacher certification, and experience and personal aspects include caring, fairness and respect, attitude towards the teaching profession, social interaction with students, promotion of enthusiasm and motivation for

learning, and reflective practice. Bowen and Marks (1994) also believe pedagogically successful teachers research their own teaching and the teaching of others and thereby become better informed about the strengths and weaknesses of their teaching performance and critically examine what they are doing in the classroom. Onwuegbuzie et al. (2007), reviewing widespread research on characteristics of successful teachers from students' point of view, refer to teaching style, presentation skills, enthusiasm, preparation and organization, fairness related to grading, demonstrating concern for students, valuing student opinions, clarity in communication, and openness toward varied opinions, a sense of humor and knowledge of subject as important qualities for successful and effective teachers.

In the Iranian context, Moafian and Pishghadam (2009) in developing a scale for assessing the qualities of successful English teachers from their students point of view reported qualities including teaching accountability, interpersonal relationships, attention to all, examination, commitment, learning boosters, creating a sense of competence, teaching boosters, physical and emotional acceptance, empathy, class attendance, and dynamism as the important characteristics of successful teachers.

The literature on characteristics of successful teachers has also referred to critical thinking ability as one of the fundamental dimensions of education (Bastanfar & Hashemi, 2010). As Ku (2009) puts it, teaching for critical thinking is an important goal of modern education because it helps learners to acquire the required competency to reason about social life in a constantly and rapidly changing world. It is believed that teachers who possess higher levels of critical thinking ability can figure out problems more easily and behave more skillfully in finding the solutions in comparison with those of their peers who have lower critical thinking abilities. These teachers also act very meticulously for choosing the appropriate teaching techniques and materials and seem more worried about their students' learning outcomes (Rahimi & Soryani, 2014).

One of the most frequently referred definitions of critical thinking is the one offered by Ennis, who defines critical thinking as "reasonable reflective thinking that is focused on deciding what to believe or do" (1987, p. 10). Ennis (1985) believes despite the existence of other terms and concepts such as higher-order thinking and Bloom's taxonomy which might resemble the concept of critical thinking, there is a need to focus on critical thinking because first of all, the two previously mentioned concepts are vague, and furthermore, there is no practical guide on how these concepts can be used in the development and implementation of a curriculum. He also criticizes higher-order thinking and Bloom's taxonomy for their failure to present explicit criteria for passing practical judgments on the outcome activities, and believes his conceptualization of critical thinking as a set of dispositions and abilities which enables people to think reasonably and reflectively and to decide what to believe or do compensates for the downsides of the previous concepts. Ennis's conceptualization is also a development over previous understandings of critical thinking which viewed it merely as a cognitive and mental ability, because to Ennis, critical think-

ing has also an intentional and motivational aspect (Ennis, 2003), an aspect which is called critical thinking disposition by other researchers (Ku, 2009) and in fact presents a holistic view of critical thinking which encompasses both a cognitive and a dispositional component. In other words, to think critically, the person should have both the cognitive ability to take all aspects of the issue into account and should have the intention and motivation to do so. Therefore, this critical thinking ability seems to be a sine qua non for teachers who need to evaluate constantly the learning contexts and learners' performance and decide on the best next move in the class.

Browne and Keeley (2007), using the metaphor of panning for gold for critical thinking, define it as an awareness of a set of interrelated questions, an ability to pose and answer critical questions at an appropriate time and a desire to actively use the critical questions. These questions are about issues, conclusions, reasons, ambiguous words and phrases, value conflicts and assumptions, possible fallacies, etc. They further emphasize that the aim of critical thinking should be an evaluation of all beliefs and claims especially those of yourself, not only using the thinking strategies to defend and strengthen your current beliefs, which they call the weak sense of critical thinking.

Birjandi and Bagherkazemi (2010) reviewing some studies on critical thinking list the following as the characteristics of critical thinkers:

- having a strong intention to recognize the importance of good thinking;
- identifying problems and focusing on relevant topics and issues;
- distinguishing between valid and invalid inferences;
- suspending judgments and decisions in the absence of sufficient evidence;
- understanding the difference between logical reasoning and rationalizing;
- being aware of the fact that one's understanding is limited and that there are degrees of belief.
- differentiating between facts, opinions, and assumptions (p. 137)

Yang, Newby, and Bill (2005), emphasizing the importance of critical thinking in higher education, refer to various teaching strategies such as classroom assessment techniques, cooperative learning strategies and case study pedagogy to promote critical thinking, but they believe Socratic questioning is a very effective and powerful strategy which can foster critical thinking skills in students.

Another characteristic of good teachers in addition to critical thinking ability in the literature is teachers' self-efficacy (Akbari & Tavassoli, 2014), which is defined as "the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 22). To Bandura (1998) "perceived efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given levels of attainments" (p. 53). Research indicates a relationship between teacher's sense of efficacy and students' attitudes toward school and subject matter, as well as a relationship between teacher efficacy and the

degree of their personal commitment (Coladarci, 1992, cited in Tschannen-Moran et al., 1998) and their enthusiasm in teaching (Allinder, 1994). Brouwers and Tomic (2000) believe teacher efficacy beliefs influence the goals teachers set for themselves, the effort they put into reaching these goals, their persistence when facing difficulties, and their performance levels, which in turn serve as new sources of efficacy information. This cyclical nature of teacher efficacy, they maintain, implies that lower levels of efficacy lead to lower levels of effort and persistence, which lead to a deterioration in performance, which in turn lead to lower efficacy. Tschannen-Morana and Hoy (2001) believe efficacy beliefs influence teachers' persistence when things do not go smoothly and their resilience in the face of setbacks. Moreover, greater efficacy enables teachers to be less critical of students when they make errors.

Teachers' sense of efficacy has also been associated with student achievement, motivation and students' own sense of efficacy. In addition, teachers with higher efficacy judgments tend to be more open to new ideas, more willing to experiment with new methods to better meet the needs of their students (Hoy & Spero, 2005). Caprara, Barbaranelli, Steca, and Malone (2006) maintain that teacher's self-efficacy beliefs may influence students' achievement in several ways. Teachers with high self-efficacy beliefs are more likely than teachers with a low sense of self-efficacy to implement didactic innovations in the classroom and to use classroom management approaches and adequate teaching methods that encourage students' autonomy and reduce custodial control, to take responsibility for students with special learning needs, to manage classroom problems, and to keep students on task. In addition, other findings suggest a reciprocal effect between a teacher's perceived self-efficacy and students' achievement, showing that teacher's perceived self-efficacy is particularly high in schools with high-achieving and well-behaved students. Previous research has also found that teachers' sense of efficacy is related to their satisfaction with their choice of profession and their competence as rated by school superintendents.

Variables influencing qualities of successful language teachers have also received research attention. Birjandi and Bagherkazemi (2010) also reported a significant relationship between critical thinking ability of Iranian EFL teachers and their pedagogical success and more specifically found that three of the five aspects of criteria thinking ability i.e., 'drawing inferences', 'interpreting evidence' and 'evaluating arguments', were positively correlated with teachers' pedagogical success scores. Moreover, Ghanizadeh and Moafian (2011) reported a significant relationship between teachers' self-efficacy and pedagogical success. Shangarfam and Rahnama Roud Poshti (2011), in a similar study to the current one, studied the relationships between critical thinking, self-efficacy and teachers' perception of effective teaching and reported that self-efficacy was a better predictor of teachers' perception of effective teaching. The difference between the current study and Shangarfam and colleagues' study is that here, the pedagogical success of teachers from the point of view of their learners was investigated, and the novelty of this study is also the fact that, to the best of au-

thors' knowledge, the predictive abilities of the teachers' perception of their critical thinking and self-efficacy have not been studied in foreign language contexts in relation to their pedagogical success from their learners' standpoints.

METHOD

Participants and Setting

In order to conduct the research and answer the proposed research question, a convenience sample of 100 Iranian English language teachers (47 female and 53 male) teaching English intermediate and higher levels at different high schools took part in the study. Out of these 100 teachers, 38 ones held MA degrees and the rest held BA degrees in different sub-disciplines of English i.e., TEFL, English literature or translation studies. The age of the participants ranged from 22 to 38 years. Besides, 600 learners of these teachers (six learners of each teacher, three high achievers, and three low achievers) participated in the study. The age of the learners ranged from 13 to 18.

Instrumentation

Critical thinking appraisal (CTA)

To evaluate teachers' critical thinking ability, a Persian version of "Watson-Glaser Critical Thinking Appraisal Form A (1980) translated and validated by Faravani (2006) was employed. This test comprises 80 items and consists of 5 subtests as follows:

Test 1: Inference: Discriminating among degrees of truth or falsity of inference drawn from given data.

Test 2: Recognizing Unstated Assumptions: Recognizing unstated assumptions or presuppositions in given statements or assertions.

Test 3: Deduction: Determining whether certain conclusions necessarily follow from information in given statements or promises.

Test 4: Interpretation: Weighing the evidence and deciding if generalizations or conclusions based on the given data are warranted.

Test 5: Evaluation of Arguments: Distinguishing between arguments that are strong and relevant and those that are weak or relevant to a particular question at issue.

This 80-item questionnaire consists of 16 Likert scale questions with alternatives ranging from T as true, PT as probably true, ID as insufficient data, PF as probably false, and F as false and 16 two-scaled questions with alternatives ranging from MADE and NOT MADE and other 32 two-scaled questions with the alternatives ranging from FOLLOWS and DOES NOT FOLLOW and also 16 other two Likert scale questions with the choices of STRONG and WEAK. The reliability of the critical thinking instrument in this study turned out to be 0.73 which seemed satisfactory. The reliability of the first subscale, inference, through running Cronbach's alpha was .69, the second one, understanding the presuppositions (0.74), the third one, conclusion (0.77), the fourth one, interpretation (0.73), and the fifth one, assessing logical reasoning (0.68).

Teachers' sense of efficacy scale

The second instrument employed in this study was Teachers' Sense of Efficacy Scale (TSES). This questionnaire which was developed by Tschannen-Moran and Hoy (2001) to measure teachers' self-efficacy beliefs in a concise manner, without becoming too specific or too general was chosen by the researcher because of its comprehensiveness, integrity, and ease of administration. TSES is composed of 24 items measuring three components of efficacy for instructional strategies, efficacy for classroom management and efficacy for students' engagement, assessed along a 9 point Likert scale from 1-9, ranging from 'Nothing' to 'Great deal'. Akbari and Abednia (2010) revised the OSTES and developed a Second Language Teaching Efficacy Scale, which includes 33 items. Eghtesadi (2011) translated this scale into Persian and validated the scale. The reliability and content validity reported for this instrument was 0.78 and 0.76, respectively. The reliability indices for sub-constructs were as the following: efficacy for instructional strategies (0.84), efficacy for classroom management (0.77), and efficacy for students' engagement (0.75).

Characteristics of successful Iranian EFL teachers questionnaire

To evaluate language teachers' performance and success in language teaching, the researchers employed the Characteristics of Successful Iranian EFL Teachers Questionnaire which was designed by Moafian and Pishghadam (2009), the total Cronbach' alpha reliability of which was reported .94. In this study, the total reliability of the questionnaire estimated via Cronbach' alpha, was 0.95.

Procedure

After explaining the objectives of the study to the teachers and their selected students, and obtaining their consent to participate in the study, they were assured that the participation in the study was voluntary and they were further assured of the confidentiality of their identities and they were told the data they provide would be used only for research purposes. Then, both critical thinking and teachers' sense of efficacy questionnaires were distributed simultaneously among the teacher participants, and Characteristics of Successful Iranian EFL Teachers Questionnaire was administered to the learner participants.

In order to analyze the collected data in this study, the Statistical Package for Social Sciences (SPSS), version 24 was employed. The level of significance was set at 0.05 and the Pearson correlation coefficient accompanied with a multiple regression was run to find out whether any relationships exist between the three variables in the study. Moreover, further multiple regressions were run to check the relationships of the components of both self-efficacy and critical thinking questionnaires with their pedagogical success.

RESULTS AND DISCUSSION

Table 1 displays the descriptive statistics for different variables in the study. The results show no violation of the

Table 1. Descriptive statistics for critical thinking, self-efficacy and pedagogical success

	N	Mean	Std. Deviation	Skewness	Kurtosis
Critical thinking	100	43.97	6.11	0.08	-1.44
Self-efficacy		99.97	12.51	0.15	-1.31
Average PS		179.50	21.36	-0.09	-1.30

assumptions of normality i.e., skewness and kurtosis were between +2 and - 2 for each of the variables (Pallant, 2010).

A series of Pearson correlations were run to find the answer to the first research question on the relationship between Iranian language teachers' critical thinking abilities and self-efficacy beliefs, and their pedagogical success as evaluated by their students (Table 2).

Results indicate that there is a significant correlation between critical thinking and pedagogical success ($r = .30$, $n = 100$, $p < 0.01$), and between self-efficacy and pedagogical success ($r = 0.39$, $n = 100$, $p < 0.01$). The coefficient of determination ($R^2 = 0.09$) shows that there is 7% of the common variance between critical thinking and pedagogical success and there is 15% of the common variance between self-efficacy and pedagogical success ($R^2 = 0.15$).

The finding that there is a positive and significant relationship between teachers' critical thinking abilities and their pedagogical success as evaluated by their students is consistent with the results of studies by Ghaemi and Taherian (2011), and Birjandi and Bagherkazemi (2010) who also reported such a relationship between the two variables. The relationship between critical thinking and pedagogical success of teachers seems warranted since as Nunan and Lamb (1996) in describing reflective teachers maintain, teachers who think and reflect on the teaching process can better plan, implement and evaluate the teaching processes. To use their words, such teachers can utilize their knowledge of the nature of language and language learning "in selecting and organizing goals, objectives, content, and learning experiences" and have the "ability to analyze and critique their own classroom behavior and the behavior of the learners" (p. 121). Furthermore, critical thinking ability enables teachers to evaluate different aspects of teaching techniques and method, the teaching situation and learners' needs and capabilities and make a more informed decision on the appropriate course of action in the classroom (Korthagen & Wubbels, 1995, Ku, 2009).

The findings of the study also showed a positive correlation between teacher self-efficacy and pedagogical success. This finding is line with and can be supported by the research which has shown the effect of teacher efficacy on students' interest in school and learning materials (Bandura, 1997), teachers' degree of personal commitment (Tschannen-Moran et al., 1998), teacher's enthusiasm in teaching (Allinder, 1994), their goal setting (Brouwers & Tomic, 2000) and persistence (Tschannen-Morana & Hoy, 2001). This finding is also more directly consistent with Ghanizadeh and Moafian's (2011) report on the positive relationship between teacher's self-efficacy beliefs and their pedagogical success in the Iranian context. The finding is noteworthy because the participants in Ghanizadeh and Moafian's study were teachers of

Table 2. Correlations among critical thinking, self-efficacy and pedagogical success

	Pedagogical success
Critical thinking	
Pearson Correlation	0.300**
Sig. (2-tailed)	0.002
N	100
Self-efficacy	
Pearson correlation	0.393**
Sig. (2-tailed)	0.000
N	100

**Correlation is significant at the 0.01 level (2-tailed).

Table 3. Multiple regression for critical thinking, self-efficacy and teachers' pedagogical success

Model	R	R square	Adjusted R square	Std. Error
1	0.42 ^a	0.18	0.16	19.51

a. Predictors: (Constant), Critical thinking, self-efficacy

b. Dependent variable: pedagogical success

private language institutes where the participants are highly motivated and the focus is on communicative language teaching, and the participants in this study were teachers of public high schools where English was a required course and the focus was on reading approach. Moreover, a point which this study adds to Ghanizadeh and Moafian's finding is that among the components of self-efficacy, efficacy for instructional strategies was the strongest predictor of pedagogical success.

The second research question asked whether any significant difference existed between Iranian language teachers' critical thinking and self-efficacy in predicting their pedagogical success as evaluated by their students. To answer this research question, after checking the assumptions of multicollinearity and homoscedasticity, a multiple regression test was run (Table 3).

The value of R square in Table 3 indicates that in this model which is a significant one ($p < 0.05$), critical thinking and self-efficacy explained 18 percent of the variance in scores of pedagogical success.

The data in Table 4 further indicate that self-efficacy was a significant predictor of pedagogical success ($t = 3.31$, $p < 0.05$), while critical thinking could not significantly predict pedagogical success ($t = 1.81$, $p > 0.05$). In other words, teachers' self-efficacy beliefs can better predict the pedagogical success of Iranian language teachers as evaluated by their students. This is consistent with the findings of

Table 4. Beta coefficients for the multiple regression on self-efficacy and critical thinking

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Partial correlations
	B	Std. Error	Beta			
1						
(Constant)	96.20	18.13		5.30	0.000	
Self-efficacy	0.558	0.16	0.33	3.31	0.001*	0.31
Critical thinking	0.625	0.34	0.17	1.81	0.073	0.18

Table 5. Descriptive statistics for self-efficacy components

	N	Mean	SD	Skewness	Kurtosis
Self-efficacy (total)	100	99.97	12.51	0.15	-1.31
Instructional strategies		41.35	2.15	-0.18	-1.22
Student's engagement		38.07	2.06	-0.09	-1.18
Class management		35.60	1.69	-0.16	-1.17

Shangarffam and Rahnama Roud Poshti (2011), who found that self-efficacy, compared to critical thinking, was a better predictor of the teachers' perceptions of effective teaching. However, it should be noticed that they used a different tool to measure teachers' critical thinking (Honey, 2000) and they studied the relationship between teachers' self-efficacy, critical thinking and their perception of effective teaching using Bell's (2005) Effective Teaching Questionnaire among English language teachers in private language institutes. This finding is also in line with Ghanizadeh and Moafian's (2011) report that self-efficacy could significantly predict teachers' pedagogical success as evaluated by their learners. However, they had not included critical thinking in their model, neither had they tested the predictive abilities of different components of self-efficacy.

The third research question of the study was whether any significant correlations existed between the components of teachers' critical thinking or self-efficacy beliefs, and their pedagogical success as evaluated by their students. Since, the answer to question 2 showed that there was a significant difference between critical thinking and self-efficacy and only the latter could significantly predict teachers' pedagogical success as evaluated by their students, research question 3 focused on the relationships between the components of teachers' self-efficacy and their pedagogical success (Tables 5 and Table 6).

Since Table 5 indicated the normality of the distribution, a set of Pearson correlations was run to check the relationship between the components of self-efficacy and pedagogical success (Table 6).

The results in Table 6 indicate that the relationship between efficacy for instructional strategies and pedagogical success is statistically significant ($r = 0.57$, $p < 0.01$), and the coefficient of determination ($R^2 = 0.32$) indicates that 32 percent of the variation in pedagogical success can be explained by efficacy for instructional strategies. Furthermore, the significant relationship between efficacy for students' management and pedagogical success ($r = 0.52$, $p < 0.01$) and ($R^2 = 0.27$) indicates that 27 percent of the variation can be

Table 6. Correlations between components of teachers' self-efficacy and their pedagogical success

	Pedagogical success
Instructional strategies	
Pearson correlation	0.576**
Sig. (2-tailed)	0.000
N	100
Student's engagement	
Pearson correlation	0.521**
Sig. (2-tailed)	0.000
N	100
Class management	
Pearson correlation	0.382**
Sig. (2-tailed)	0.000
N	100

**Correlation is significant at the 0.01 level (2-tailed)

Table 7. Model summary for self-efficacy components

Model	R	R square	Adjusted R square	Std. Error
1	0.62 ^a	0.38	0.36	9.94

a. Predictors: (Constant), class management, instructional strategies, student's engagement b. Dependent Variable: self-efficacy

explained by students' engagement. Finally, the significant relationship between efficacy for classroom management and pedagogical success ($r = 0.32$, $p < .01$) and ($R^2 = 0.10$) shows that 10 percent of pedagogical success variance can also be explained by class management.

Shangarffam and Rahnama Roud Poshti (2011) also reported a positive relationship between all components of self-efficacy and perception of effective teaching and its components, which is consistent with the findings of the current study. However, it should be noted that they studied

Table 8. Beta coefficients for multiple regression on self-efficacy components

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Partial correlations
	B	Std. Error	Beta			
1						
(Constant)	-27.3	22.1		-1.2	0.218	
Efficacy for instructional strategies	8.5	2.2	1.46	3.7	0.000*	0.36
Efficacy for students' engagement	-4.2	2.6	-0.69	-1.6	0.108	-0.16
Efficacy for classroom management	-1.7	1.2	-0.24	-1.4	0.149	-0.14

the relationship between teachers' self-efficacy and teachers' perceptions of effective teaching, but in this study, the relationships between teachers' self-efficacy and their pedagogical success as evaluated by their students were investigated.

The final research question was whether any significant difference existed between the components of Iranian language teachers' critical thinking or self-efficacy in predicting their pedagogical success as evaluated by their students. With regard to the findings of the study that only self-efficacy could significantly predict teachers' pedagogical success, research question 4 also focused on the predictive abilities of the components of self-efficacy. To this aim, after checking the assumptions of multicollinearity and homoscedasticity, a standard multiple regression test was run. Tables 7 and 8 display the results of the multiple regression.

As displayed in Table 7, the regression model which includes three components of the self-efficacy can explain 38 percent of the variation in pedagogical success ($R^2 = 0.38$). The information in Table 8 further shows that the efficacy for instructional strategies is the only significant predictor of pedagogical success ($t = 3.7$, $p < 0.01$).

Reviewing the items which measure, efficacy for instructional strategies indicates that abilities and skills such as answering difficult questions, gauging students' comprehension of what has been taught, crafting good questions, adjusting lessons to the level of individual students, using variety of assessment strategies, providing an alternative explanation for, or example when students are confused, providing appropriate challenges for very capable students, teaching learning strategies to students, and enhancing students' autonomy are what form this efficacy.

Shangarffam and Rahnama Roud Poshti's findings (2011) are complementary to the findings of this research because their research was conducted with teachers and learners from private language institutes and the current study was carried out with English language teachers and learners from public schools. Moreover, they found that self-efficacy was a better predictor of teachers' perception of effective teaching and this research found that it is also the better predictor of teachers' pedagogical success from the learners' perspective. The fact that they used a different tool to assess critical thinking and still reported that self-efficacy was the better predictor may imply that critical thinking, measures with any tools, is not so good a predictor as self-efficacy. This research, in addition, found that among the components of self-efficacy, efficacy for instructional strategies was the best predictor of

teachers' pedagogical success, something which is missing in their study.

CONCLUSION

In line with the recent emphasis on the characteristics of successful teachers, the main purpose of this research was to investigate the relationship between language teachers' critical thinking and self-efficacy and their pedagogical success as evaluated by their students as the ultimate clients who receive teaching services. The results of the study indicate that although teachers' self-efficacy and critical thinking are significantly correlated with their pedagogical success, of the two, only self-efficacy is the significant and therefore the better predictor of teachers' pedagogical success. Moreover, the regression model shows that among the components of self-efficacy, efficacy for instructional strategies is the best predictor of teachers' success in teaching from the point of view of their learners.

Despite the significance and importance of critical thinking which, along with communication, collaboration and creativity, is viewed as one of the four basic skills required for life in the 21st century (National Education Association), and although various research has shown the relationship between critical thinking and good qualities of teachers, the findings of this study imply that if teachers want to be regarded as successful and efficient teachers by their students they need to invest more on boosting their self-efficacy skills and especially their efficacy for instructional strategies. These findings corroborate the contention made by Ghanizadeh and Moafian (2011) that in teacher development programs attempts should be made to provide trainees with opportunities to carry out efficacy-raising practices such as, assigning teachers more manageable classes with competent students of increasing levels of complexity, providing performance feedback that highlights successful achievements, making teachers aware of the weaknesses in their capabilities, and encouraging interactions among teachers with varying range of experience.

Research on the pedagogical success of teachers has investigated the effect of other variables such as emotional intelligence (Ghanizadeh & Moafian, 2009) and spiritual intelligence and teachers' pedagogical success (Roohani & Darvishi, 2015). Future research can compare the effect of these and other variables such as personality traits of the teachers, as well as self-efficacy and critical thinking

abilities in more robust research designs and procedures such as structural equation modeling models to find out which factors can contribute more to the development of teachers' pedagogical success.

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