



## **The Interplay of Receiving, Accepting, and Asking for Strokes and Iranian EFL Teachers' Perceived Self-Efficacy**

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In educational settings, teacher-student relationships are considered significant for their influences on students' learning and academic lives. Interpersonal skills, social persuasion, and stroking behavior, the recognition, attention or responsiveness that one person gives another (McKenna, 1974), can promote such a relationship and affect teachers' self-efficacy beliefs. This study attempted to investigate the relationship and interaction between the frequency of strokes and the perceived self-efficacy of EFL teachers, considering their gender and level of experience. In order to collect data, 180 EFL teachers, both male and female with different years of experience, completed a booklet questionnaire consisting of demographic information, the Teacher Self-efficacy scale (Bandura, 2006; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Woolfolk Hoy, 2001), and the Stroking Profile (McKenna, 1974). The results of the analysis, using a Spearman rho correlation, indicated a significantly strong positive correlation between the frequency of receiving and accepting positive strokes and the participants' self-efficacy. There was also a strong negative correlation between frequency of receiving and accepting negative strokes and self-efficacy. However, the frequency of requesting strokes and self-efficacy was weak but significant for positive strokes but non-significant for negative ones. Overall, no difference was found for teachers' self-efficacy with regard to stroke frequency across gender and years of experience. Further, the results of a factorial ANOVA demonstrated that no interaction existed among frequency of strokes, self-efficacy, gender, and EFL teachers' experience levels. Hence, the more EFL teachers were provided with positive strokes, the higher their sense of self-efficacy would be. The findings imply that strokes, particularly positive strokes as a source of self-efficacy for EFL teachers, should be seriously taken into account.

**Keywords:** perceived sense of self-efficacy, EFL teacher, stroke, transactional analysis

### **Introduction**

EFL teachers, known as the lynchpin of foreign language teaching, have always been prone to negative self-evaluation and thus low self-efficacy (Rastegar & Memarpour, 2009; Wheatley, 2005). On the other hand, teachers' self-efficacy is considered one of the major factors influencing the achievement of educational goals as defined by the institutions and educational centers (Allinder, 1995). Therefore, the notion of teacher self-efficacy has attracted many researchers' attention and has become a seminal area for investigation. Perceived self-efficacy is defined as "beliefs in one's capabilities to organize and execute the courses of action required for producing given attainments" (Bandura, 1997, p. 3).

With Bandura's definition of self-efficacy, several scales and questionnaires have been developed to measure teacher self-efficacy. According to social cognitive theory (Bandura, 1997), teacher self-efficacy can be defined as the beliefs of each teacher to be able to plan, organize, and accomplish activities to successfully reach their educational goals. Teachers' beliefs about how effective they are can serve as the basis for many significant instructional decisions which can play a vital role in the students' educational experiences (Soodak & Podell, 1997).

There are different factors involved in the investigation of self-efficacy that look at it from different viewpoints. In general, as Bandura (1997) postulates, there are four main sources of influence: mastery experience, vicarious experience, social or verbal persuasion, and arousal and emotional states. As for the teacher's experience, no consensus exists on the number of years of teaching is necessary to terminate the novice stage and become a professional. Some researchers have considered three years of teaching experience or less as a criterion for novice teachers (e.g., Farrell, 2012; Haynes, 2011), and five or six years of experience or more for experienced teachers (Stronge, Tucker, & Hindman, 2004). In this study a novice teacher was defined as a teacher with less than three years of teaching experience, and anyone with five or more years of experience was considered experienced.

The third source, to be put under scrutiny in the current research, regards social or verbal persuasion received from others, and as Pajares (2002, p. 2) phrases it, "successful persuaders foster people's beliefs in their capabilities," while negative persuasion can lead to a low self-belief. As a basis for the persuasion people give and receive from others, the researcher has chosen the concept of strokes as proposed by Transactional Analysis (TA) theory. The theory of transactional analysis was proposed in 1950s by Eric Berne and was soon accepted as an effective method of psychotherapy. Stroke, as it is defined by Berne (1996), is a "unit of recognition" (p. 19). In his renowned book, *Games People Play*, Berne (1996) described certain hungers which exist in all human beings. One of these hungers is called stimulus-hunger, which is the need for physical and mental stimulation, that can be satisfied through receiving strokes from others. TA theory mainly concerns the childhood effect on our adult state; therefore, the choice of the term "stroke" refers to an infant's need to be touched (Berne, 2010; Stewart & Joines, 2008). In this study, the frequency of strokes is defined as the score of the teacher participants on a stroking profile devised by McKenna (1974), which regards the prevalence of receiving, accepting and asking for strokes.

Accordingly, it can be stated that verbal persuasions as a type of strokes, either positive or negative, may influence the teacher's perceived self-efficacy for better or worse. Although there has been a great deal of work demonstrating the importance of teachers' self-efficacy perceptions (Allinder, 1994; Bandura, 1997; Pajares, 2002; Soodak & Podell, 1997), to the best of the researchers' knowledge, the literature lacks data on what kind of persuasion might interact with teachers' efficacy perceptions. If teachers are provided with the right type of strokes, their sense of self-efficacy could be enhanced to better fulfill the educational tasks and achieve their pedagogical objectives. Hence, this study adopts a framework proposed by transactional analysis theory to look into the strokes and the possible relationship between the frequency of strokes received by the EFL teachers and their perceived self-efficacy.

## Literature Review

A teacher's sense of efficacy is associated with "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. 233). Teachers' self-efficacy can profoundly affect teachers' futures in terms of their endurance through the difficulties they may face in the teaching profession (Glickman & Tamashiro, 1982; Pajares, 2002). There are four factors affecting self-efficacy beliefs (Bandura, 1997) which were previously identified as mastery experience, vicarious experience, social persuasions, and physiological states. One of the prominent matters known to be influential on teacher's self-efficacy is the verbal, and rarely nonverbal remarks and judgments (i.e., social persuasions) provided for the teachers either to support or criticize their ego and performance.

Individuals create and develop self-efficacy beliefs as a result of the social messages they receive from others. Persuaders can play an important role in the development of an individual's self-beliefs. To cultivate people's beliefs in their capabilities while making sure that the foreseen success is reachable, is what successful persuaders are effective at. Bandura asserted that effective persuasions should not be mistaken with thoughtless praise. We should also take it into account that just like positive persuasions that can encourage, negative persuasions may weaken self-beliefs (Bandura, 1997).

Bandura (1997) insists that all human beings remember being praised in their lives and they always remember these, by which they boost their self-beliefs. These social persuasions have a profound similarity with what Transactional Analysis (TA) theory termed "stroke". As defined above, a stroke is "a unit of recognition" in Berne's words, the founder of TA. Woollams, Brown, and Huige (1976) define it as "a unit of attention which provides stimulation to an individual" (p. 15). Therefore, as a practical definition we can describe a stroke as a transaction which provides a person with either recognition or stimulation. A smile, a compliment, or for that matter a frown or an insult all show us that our existence has been recognized (Steiner, 2003).

Strokes are classified into verbal or non-verbal. A verbal stroke is a set of locutions said as a type of recognition to another, while a non-verbal stroke can range from a merely physical touch to a smile or even a nod in approval or rejection (Stewart & Joines, 2008). Strokes can be of positive or negative nature as well. A positive stroke is one which the receiver experiences as pleasant (e.g., "You look awesome today, You're lovely to have around, That was a good piece of work you did"). A negative stroke is one experienced as painful (e.g., "I hate you, I don't like your tone when you talk, I feel uncomfortable in this class"). Moreover, there are certain types of strokes that we are accustomed to receiving, and for that reason, we may devalue them and thereby reject them. On the other hand, there are certain types of strokes that we might want to receive but do not ask for (Solomon, 2003). Generally, most people think that strokes which are asked for are of no importance, and as a result they do not ask for any strokes. Stewart and Joines (2008) reject this and soundly state that "strokes that you get by asking are worth just as much as strokes you get without asking" (p. 79).

As for the previous studies conducted on self-efficacy and strokes or social persuasions, we can refer to Aydin and Woolfolk Hoy (2005), who investigated the self-efficacy of 70 pre-service teachers in a variety of subjects in the United States. In this quantitative study, they found that the participants' number of field experiences, their relationships with mentors, and the teaching support they received (social persuasions) were a sound predictor of their teaching self-efficacy. Similarly, Morris (2009) with 12 award winning professors in various fields as participants in the United States, in a qualitative study, concluded that mastery experiences and social persuasions were critical to professors' self-efficacy.

Likewise, Hagen, Gutkin, Wilson, and Oats (1998) examined the relationship of vicarious experience and verbal persuasions, as a type of stroke, on teachers' sense of self-efficacy by the aid of a videotape describing and demonstrating effective behavior-management procedures. Data analyses indicated that the experimental group exceeded the control group on two of four self-efficacy measures. Stroking has also been related to self-esteem, which can be related to self-efficacy as well. In a study seeking to find a correlation between strokes and existential positions, it was found that positive evaluations of self were linked with fewer exchanges of negative strokes and a higher number of positive strokes (Allen & Webb, 1975). In another study on graduate students, Payton, Morriss, and Beale (1979) concluded that their self-esteem increased when they were provided with instruction on TA concepts including strokes. Furthermore, Albrecht (1995) examined the effects of two types of group interventions, TA and self-awareness classes, on the self-esteem and locus of control of American school boys. The results showed that while students in both groups showed increases in school self-esteem, the transactional analysis group had significantly greater increases than the other.

Recently, several studies have examined the role and various aspects of strokes in language teaching. These studies have specifically focused on the development of a scale for student strokes and the impact of strokes on students' motivation (Pishghadam & Khajavy, 2014), Willingness to Attend Classes (WTAC), and language achievement (Rajabnejad, Pishghadam, & Saboori, 2017). Several attempts have

been also made to explore the teachers' conceptions of strokes (Hosseini, 2016) and stroking behavior (Irajzad, Pishghadam, & Shahriari, 2017), to construct a Teacher Stroke Scale (TSS), and to investigate the relationship between teacher strokes and teacher burnout (Yazdan Pour, 2015).

Based on the existing literature, there is also a large number of research papers and studies available on the teachers' self-efficacy (Aydin & Woolfolk Hoy, 2005; Gibson & Dembo, 1984; Tschannen-Moran & Woolfolk Hoy, 2001; Palmer, 2006), yet to the best of our knowledge, there is no significant study investigating the role of social or verbal persuasions in promoting teacher's self-efficacy. In fact, one of the major factors affecting teacher's self-efficacy can be the verbal remarks and judgments given to teachers either to show approval or disapproval of them and their performance. This issue, which has not gained much attention in the relevant studies, can play a significant role in the formation of a positive or negative self-belief. Accordingly, this study adopts a framework proposed by transactional analysis theory to look into strokes and the possible relationship and interaction between the frequency of strokes received, accepted, and requested by the EFL teachers, and their perceived self-efficacy. The type of strokes to be developed and given to EFL teachers may also vary according to their gender and level of experience. On that account, with the aid of the results of the current study, the teachers can be provided with the appropriate type of strokes at an appropriate time based on their gender and years of experience. To shed light on these aspects, the following research questions were posed in this study.

1. Is there any statistically significant relationship between male and female EFL teachers' perceived sense of self-efficacy and the frequency of strokes they receive, accept and request, from their students, colleagues, and supervisors?
2. Is there any statistically significant relationship between the novice and professional EFL teachers' perceived sense of self-efficacy and the frequency of strokes they receive, accept and request, from their students, colleagues, and supervisors?
3. Is there any interaction among the frequency of strokes, perceived sense of self-efficacy, gender, and level of experience of the EFL teachers?

## Method

### Participants and Research Setting

The participants of the study were 180 Iranian EFL teachers, selected from various branches of two language institutes, all living and working in Tehran. The participants' ages range from 20 to 50, teaching general English courses at different levels, from different fields of study; however, all of them taught only English. They were all non-native teachers, consisting of 105 males and 75 females with a diverse range of instructional experience of one year to ten years and over, selected through convenience sampling (Dörnyei, 2011). This type of sampling is "the most common sample type in L2 research ... where an important criterion of sample selection is the convenience of the researcher" (Dörnyei, 2011, p. 98). The participants were contacted based on availability and willingness to participate. Table 1 summarizes the distribution of the participants in terms of gender and level of experience.

TABLE 1  
*Experience and Gender Distribution of the Participants*

Demographic Variable		Frequency	Percentage (%)
Gender	Male	105	58
	Female	75	42
Experience	Novice	96	53
	Experienced	84	47
Total		180	100

According to the participants' gender and experience, they were divided into four categories of male or female, and novice or professional.

## **Instrumentation**

### Teacher self-efficacy questionnaire

A 30-item questionnaire was employed in this study, which was adapted primarily from the one developed by Skaalvik and Skaalvik (2007) and two others developed by Bandura (2006) and Tschannen-Moran and Woolfolk Hoy (2001). The three questionnaires have been used in a large number of studies since they were developed (Aydin & Woolfolk Hoy, 2005; Chacon, 2005; Woolfolk Hoy & Burke-Spero, 2005). All the items were constructed according to Bandura's recommendations for item construction, namely, having can-do statements, having multiple interval scales, being unbiased to reduce social evaluative concerns, and others (Bandura, 2006). A sample of the questionnaire can be seen in Appendix A.

The self-efficacy dimensions investigated in this 30-item questionnaire are as follows: instruction (items 1, 8, 12, 16, & 29), adapting instruction to individual needs (items 5, 11, 18, 23, & 28), motivating students (items 2, 10, 15, 21, & 25), maintaining discipline (items 6, 9, 14, & 19), cooperating with colleagues and parents (items 3, 7, 13, 22, & 27), coping with changes and challenges (items 4, 17, 20, & 24), and creating a positive institute climate (items 26 & 30). Responses were given on a 5-point Likert scale ranging from "Not certain at all" (1) to "Absolutely certain" (5).

### The stroking profile

In order to determine the stroking patterns of the teacher respondents, a stroking profile was employed in this study. The stroking profile measures how a person gives and receives strokes in four categories. It is a diagram devised by McKenna (1974) and has been used since then as the major tool to analyze stroking patterns. It addresses how often the participants receive, accept, request, or refuse to give strokes. The participants make separate estimates, with six options ranging from "never" to "always", under each heading in the form of bar graphs for positive and negative strokes (Appendix B). Treat (1977) reported this instrument to be a reliable tool in TA psychotherapy and it has been utilized in determining stroking patterns ever since.

It must be noted that the profile has been modified to some extent by the researcher so that it focuses on the aims of the current study. The only alteration from the original profile is removing one column regarding giving strokes which was beyond the current study's scope. Also, further information was provided to clarify the profile and how to mark it.

## **Data Collection Procedure**

The self-efficacy questionnaire and the stroking profile were prepared in a questionnaire booklet consisting of three sections: demographic information, self-efficacy questionnaire, and the stroking profile alongside some examples of positive and negative strokes to facilitate the respondents' understanding of the items. At the outset of the study, a pilot study was carried out on 30 participants for the sake of measuring the reliability of the questionnaires. To do so, Cronbach's alpha as a measure of internal consistency of the test was calculated, and the results indicated that the self-efficacy questionnaire and the stroking profile have a very high internal consistency reliability (alpha = .90, .85, respectively).

In the main phase of the study, the booklet was distributed among the participants to be completed, after they had consented to participate in the study. The researcher provided the participants with enough

information on how to fill the stroking profile and provided them with a sample on an extra sheet of paper including definitions of terms used in the profile to alleviate any potential confusion. The participants were given 20 minutes to fill the booklet. In all, 53 out of 180 teachers from a language institute and 127 out of 180 from another language academy completed the questionnaire booklets. At the end, the questionnaires were collected and scored, and the results taken from the stroking profile and the self-efficacy questionnaire were tabulated for further statistical and correlational analysis.

## **Data Analysis**

Having collected the data, first the reliability of the questionnaires was examined. In order to measure the reliability of the questionnaires, Cronbach's alpha as a measure of internal consistency of the test was calculated on the data coming from 30 participants. Subsequent to ensuring the reliability of the questionnaires, the research questions were investigated using descriptive and inferential statistics. Since the collected quantitative data met the requirements for non-parametric tests, the Spearman rho correlation coefficient was calculated for research questions one and two. For the interaction of gender and years of experience along with the frequency of strokes and perceived self-efficacy, a factorial ANOVA (ANCOVA) was used.

## **Results**

The purpose of this section is to present the results pertaining to the research questions of the study. Subsequent to the reliability analysis of the questionnaires, a variety of statistical techniques such as descriptive statistics, tests of homogeneity, correlation analysis, and analysis of variance were utilized to enable the researcher well discuss the questions. It must be noted that different assumptions, known as tests of normality, were checked as the prerequisites to perform each technique using a variety of methods prior to each type of analysis.

### **Descriptive Statistics for the Self-efficacy and Strokes' Frequency**

In order to answer the first and second research questions, it was necessary to compute the correlation coefficient between self-efficacy and the frequency of strokes for both male and female instructors and also for experienced and novice teachers. Therefore, first the descriptive statistics of all the variables involved in the questions were computed, which are presented in Table 2.

TABLE 2  
Descriptive Statistics for Self-efficacy & Strokes

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Std. Error
Self-efficacy	180	71.00	150.00	116.46	13.31	-.48	.181	1.03	.36
re.positive	180	1.00	6.00	3.04	1.29	.54	.181	-.29	.36
re.negative	179	1.00	5.00	2.38	.88	.85	.182	.40	.36
acc.positive	179	1.00	5.00	2.26	1.00	.56	.182	-.19	.36
acc.negative	178	1.00	6.00	2.53	1.12	.71	.182	.39	.36
ask.positive	180	1.00	6.00	1.71	.81	1.82	.181	5.89	.36
ask.negative	179	1.00	5.00	1.49	.75	1.69	.182	3.19	.36
Valid N (listwise)	177								

Note. re.positive = receiving + strokes re.negative = receiving - strokes  
acc.positive = accepting + strokes acc.negative = accepting - strokes  
ask.positive = asking + strokes ask.negative = asking - strokes

The results of the analysis determined whether the data met the requirement for parametric or non-parametric statistics. Since skewness and kurtosis ratios were beyond minus/plus 1.96 (i.e., violating the normality assumption), Spearman rho as a non-parametric test was run in this study.

### Results of Spearman rho Correlation for the First Research Question

The first research question examined if there was any statistically significant relationship between male and female EFL teachers' perceived sense of self-efficacy and the frequency of strokes they receive, accept and request, from their students, colleagues, and supervisors. In order to respond to this question, it was necessary to compute the correlation coefficient between self-efficacy and the frequency of strokes for both male and female instructors. Hence, the descriptive statistics of all variables involved in the question were computed (see Table 2).

Table 3 presents the Spearman rho correlation coefficients between self-efficacy and frequency of different positive and negative strokes. Evidently, all the rhos are significant except for the frequency of negative strokes requested. Moreover, the frequencies of receiving, accepting, and requesting positive strokes are significantly and positively correlated with self-efficacy (with large to small effect sizes). That is, the higher the self-efficacy in teachers, the more they tend to receive, accept, and request positive strokes. On the other hand, self-efficacy has a negative correlation with the frequency of receiving and accepting negative strokes (with moderate to large effect sizes). That is, the higher the self-efficacy in teachers, the less they tend to receive and accept negative strokes.

TABLE 3  
Correlations Between Measures of Self-efficacy & Stroke Frequency

	Self-efficacy	re.positive	re.negative	acc.positive	acc.negative	ask.positive	ask.negative
Correlation Coefficient	1.000	.83**	-.48**	.46**	-.46**	.17*	.07
Sig. (2-tailed)	.	.00	.00	.00	.00	.01	.33
N	180	180	179	179	178	180	179

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

\* Correlation is significant at the 0.05 level (2-tailed).

In order to determine which of the significant positive and negative rhos are more significant than the others, Fisher’s Z was computed for each rho. Table 4 presents the comparative results for positive and negative rhos. Though the frequencies of receiving, accepting, and requesting positive strokes are significantly and positively correlated with self-efficacy, the frequency of receiving positive strokes is the most highly positively correlated variable with self-efficacy (p = .00). This is also followed by the frequency of accepting positive strokes (p = .00). Although the frequencies of receiving and accepting negative strokes are significantly and negatively correlated with self-efficacy, none of the correlations is more significantly negative than the others.

TABLE 4  
*Comparison of Significant rhos Between Positive and Negative Strokes*

Comparison	Self-efficacy correlated with	Fisher’s Z	Sig (2-tailed)
Pair 1	Re.positive Acc.positive	6.52	.00
Pair 2	Acc.positive Ask.positive	3.03	.00
Pair 3	Re.negative Acc.negative	.21	.83

To examine whether gender plays any role and has any relationship within the above relationships, once again the above correlations were computed, but this time the rhos were calculated for each gender group separately. The rhos in both gender groups were then compared with one another in each category of strokes via Fisher’s Z transformation; the results are provided at the bottom of Table 5. The Fisher’s Z results showed that none of the comparisons resulted in any significant difference (p > .05).

TABLE 5  
*Correlation Comparison Between Genders*

		Self- efficacy	re. positive	re. negative	acc. positive	acc. negative	ask. positive	ask. negative	
Males	Self- efficacy	Correlation Coefficient	1.00	.85**	-.53**	.51**	-.49**	.21*	.05
		Sig. (2- tailed)	.	.00	.00	.00	.00	.02	.57
		N	105	105	104	104	103	105	104
Females	Self- efficacy	Correlation Coefficient	1.00	.79**	-.38**	.37**	-.45**	.10	.09
		Sig. (2- tailed)	.	.00	.00	.00	.00	.38	.39
		N	75	75	75	75	75	75	75
		Fisher’s Z		1.26	1.24	1.16	.34	0.77	-.28
		Sig. (2-tailed)		.20	.21	.24	.73	0.44	.38

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

\* . Correlation is significant at the 0.05 level (2-tailed).

This finding suggests that either when gender is taken into account or when it is disregarded, there are some differential statistically significant relationships between EFL teachers’ perceived sense of self-efficacy and the frequency of strokes they receive, accept and request. These correlations are in fact not significantly different by gender, thus meaning that gender does not interact with the relationship between EFL teachers’ perceived sense of self-efficacy and the frequency of strokes received, accepted and requested.



## Results of Spearman rho Correlation for the Second Research Question

To answer the second question, the correlation coefficient was calculated between self-efficacy and the frequency of strokes, but this time for both novice and professional teacher groups.

Table 6 presents the rhos computed for each experience group, which indicate that almost the same pattern of significant rhos could be seen for both gender groups except for frequencies of requesting positive strokes. That is, the rho for the novice group was significant, albeit with a small to medium effect size, but it was not significant for the professional group. The rhos in both experience groups were then compared with one another in each category of strokes via Fisher's Z transformation; the results are provided at the bottom of the table.

TABLE 6  
*Correlation Comparison Between Novice and Professional Teachers*

		Self-efficacy	re. positive	re. negative	acc. positive	acc. negative	ask. positive	ask. negative	
Novice	Self-efficacy	Cor. Coef.	1.00	.79**	-.41**	.33**	-.42**	.21*	.01
		Sig. (2-tailed)	.	.00	.00	.00	.00	.034	.90
		N	96	96	95	95	95	96	95
Professional	Self-efficacy	Cor. Coef.	1.00	.81**	-.49**	.59**	-.35**	.14	.14
		Sig. (2-tailed)	.	.00	.00	.00	.00	.20	.17
		N	84	84	84	84	83	84	84
Fisher's Z				-.41	-.66	-.2.2	.54	.48	-.84
Sig. (2-tailed)				.68	.5	.02*	.58	.63	.40

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

\* Correlation is significant at the 0.05 level (2-tailed).

Almost none of the comparisons resulted in any significant difference ( $p > .05$ ) except for the comparison of the correlation between self-efficacy and the frequency of accepting positive strokes. Although in both novice and professional groups the correlation was significant, the relationship between self-efficacy and the frequency of accepting positive strokes was far more significant in the professional groups, with a medium to large effect size. That is, in the professional teachers group, the teachers tend to show a much higher frequency of accepting positive strokes as their self-efficacy increases compared to the novice teachers group.

## Results of Factorial ANOVA for the Third Research Question

The third research question endeavored to find any interaction among the frequency of strokes, perceived sense of self-efficacy, gender, and teachers' experience level. To answer this question, gender, experience level, and sum or total frequency of all negative and positive strokes types by group (high, middle, and low) were entered as independent variables, self-efficacy was entered as the dependent variable. Therefore, to analyze the data, it was necessary to use a factorial or three-way ANOVA.

First, the assumptions to run factorial ANOVA were checked. One of these assumptions is that the normality of the dependent variable violated in the descriptive statistics for self-efficacy scores, and the skewness and kurtosis ratios were beyond minus/plus 1.96. Nevertheless, since the sample was large enough ( $n = 180$ ), a factorial ANOVA could be considered robust against this violation. The second assumption of a factorial ANOVA is homogeneity of variances, which was met according to the Levene's test results ( $p > .05$ ).

Afterward, a factorial ANOVA was run. Table 7 presents the results which indicate in the ninth row that there is no interaction among stroke frequency, perceived sense of self-efficacy, gender, and teacher's experience level ( $p > .05$ ). That is, the null hypothesis for the third research question was supported.

TABLE 7  
Tests of Between-Subjects Effects Regarding All Variables

Dependent Variable: Self-efficacy							
	Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
1	Corrected Model	5119.02 <sup>a</sup>	11	465.36	2.93	.00	.16
2	Intercept	2215866.47	1	2215866.47	13976.18	.00	.98
3	gender	3.74	1	3.74	.02	.87	.00
4	experience	1796.21	1	1796.21	11.32	.00*	.06
5	Total.strokes.groups	1801.57	2	900.78	5.68	.00*	.06
6	gender * experience	42.17	1	42.17	.26	.60	.00
7	gender * Total.strokes.groups	104.90	2	52.45	.33	.71	.00
8	experience * Total.strokes.groups	605.56	2	302.78	1.91	.15	.02
9	gender * experience * Total.strokes.groups	79.99	2	39.99	.25	.77	.00
10	Error	26635.70	168	158.54			
11	Total	2473129.00	180				
12	Corrected Total	31754.72	179				

a. R Squared = .161 (Adjusted R Squared = .106)

A closer look at the other rows of Table 7 above, however, indicates some noteworthy results which merit further investigation. For instance, the fourth row shows a significant difference between novice and professional teachers in self-efficacy with a medium to large effect size ( $p < .05$ ). The descriptive statistics in Table 8 specifically show that professional teachers with more teaching experience possess significantly higher self-efficacy in comparison with novice teachers.

TABLE 8  
Descriptive Statistics Across Experience Groups

Dependent Variable: Self-efficacy				
experience	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
novice	113.45	1.38	110.72	116.19
professional	120.10	1.41	117.32	122.89

Furthermore, there seems to be a significant difference between the high, middle, and low groups of negative and positive strokes in terms of self-efficacy. The descriptive statistics for self-efficacy across these three groups in Table 9 show that the high group exhibits higher self-efficacy than the mid and low groups.

TABLE 9  
Descriptive Statistics Across Total Strokes Groups

Dependent Variable: Self-efficacy					
Total.strokes.groups	N	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
low	60	114.09	1.72	110.69	117.49
mid	60	114.80	1.71	111.41	118.19
high	60	121.45	1.69	118.11	124.79

In order to confirm this difference statistically, the post hoc test Tukey HSD was employed, whose results in Table 10 indicate that the high groups for negative and positive strokes exhibits significantly

higher self-efficacy than the other two groups.

TABLE 10  
Multiple Comparisons of Post hoc Test Tukey HSD Across Total Stroke Groups

Dependent Variable: Self-efficacy							
	(I) Total.strokes.groups	(J) Total.strokes.groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	low	mid	-1.26	2.35	.85	-6.83	4.30
		high	-8.06	2.35	.00	-13.63	-2.49
	mid	low	1.26	2.35	.85	-4.30	6.83
		high	-6.80*	2.35	.01	-12.37	-1.22
	high	low	8.06*	2.35	.00	2.49	13.63
		mid	6.80*	2.35	.01	1.22	12.37

\*. The mean difference is significant at the 0.05 level.

In sum, it can be concluded that the higher self-efficacy teachers exhibit a higher frequency of both positive and negative strokes types altogether.

Furthermore, the seventh row in Table 7 indicated a significant interaction between gender and the high, middle, and low groups for positive strokes in terms of self-efficacy. The descriptive statistics for self-efficacy across these gender and strokes groups in Table 11 show that the high group exhibits higher self-efficacy than the mid and low groups in both genders, and the mid groups are also higher in self-efficacy compared to the low group in both gender groups.

TABLE 11  
Descriptive Statistics Across Genders & Total Positive Stroke Groups

Dependent Variable: Self-efficacy					
gender	Total.positive.strokes.groups	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
male	low	105.06	1.61	101.88	108.25
	mid	115.25	1.91	111.48	119.02
	high	128.86	1.69	125.52	132.20
female	low	110.47	2.18	106.16	114.78
	mid	116.18	1.84	112.54	119.81
	high	123.97	2.40	119.21	128.72

Robust tests of Welch and Brown-Forsythe as alternatives to ANOVA were chosen, whose results in Table 12 indicate that females are of significantly higher self-efficacy than males in the low positive strokes group.

TABLE 12  
Robust Tests of Equality of Means Welch and Brown-Forsythe Across Genders in Low Positive Stroke Group

LOW				
	Statistic <sup>a</sup>	df1	df2	Sig.
Welch	5.96	1	56.11	.018
Brown-Forsythe	5.96	1	56.11	.018

a. Asymptotically F distributed.

In summary, a significant interaction between gender and the high, middle, and low groups for positive strokes in self-efficacy which was indicated in Table 7 was due to the difference between males and females' self-efficacy in the low positive strokes group.

## Discussion of the Findings

The aim of the current study was to inquire into the relationship between receiving, accepting, and requesting strokes and EFL teachers' sense of self-efficacy. A range of other variables such as experience and gender were also investigated. In this section, the results are discussed in detail in comparison with the aforementioned empirical studies regarding perceived sense of self-efficacy and strokes in order to develop sound implications.

Regarding research question one, the results, irrespective of gender, showed that the participants' perceived sense of self-efficacy was highly correlated with the frequency of the positive strokes received from their students, colleagues, and supervisors. The correlation coefficient of 0.83 according to Hatch and Lazaraton (1991) is considered high. The finding easily demonstrates that receiving positive strokes can be one factor which is strongly related to EFL teachers' self-efficacy. Therefore, the first null hypothesis of the study was rejected.

This strong correlation is in line with what Bandura (1986, 1994) has proposed. He has introduced social persuasions as one of the main sources of self-efficacy, so that the more persuasions one receives, the higher one's sense of self-efficacy can be. This has been corroborated in a myriad other studies, although none of them has worked on the notion of strokes (Aydin & Woolfolk Hoy, 2005; Heppner, 1994; Morris, 2010).

On the other hand, the results showed that receiving negative strokes can deteriorate one's sense of self-efficacy, as the correlation coefficient of the self-efficacy and frequency of negative strokes was 0.48. This coefficient does not demonstrate a very strong correlation, albeit a significant one. It must be noted that the finding is partly in line with what Bandura (1994) and Pajares (2002) have stated, indicating that negative persuasions can deteriorate one's self-beliefs, while it is partly in conflict with the fact that the same studies posited that the destructiveness of negative persuasions can be more powerful than the influence of positive ones. The results showed that, according to Fisher's Z analysis, the most highly correlated issue with higher self-efficacy was the frequency of receiving/accepting positive strokes, and the frequency of negative strokes came second, meaning that in the Iranian EFL context the role of positive strokes is more powerful than for negative strokes in foregrounding one's self-efficacy perception.

These findings on positive and negative strokes were also shown to be correlated with self-efficacy, with a similar coefficient of 0.46. This showed quite a moderate correlation while significant in both cases. Accepting strokes, according to Stewart and Joines (2008), depends on multiple factors such as personal preferences, which is a rather complicated trait and fairly impossible to measure. Yet the more the teachers accepted positive and negative strokes, the higher the relationship would be noticed with their self-efficacy perceptions.

The frequency of requesting strokes showed a weak but significant correlation for positive strokes. For negative strokes, the correlation was both weak and insignificant. As Steiner (1990) posits, individuals tend to believe that the strokes which are requested are not as rewarding as those given in a spontaneous manner. Yet the significance of the positive strokes requested once again confirms the power of positive strokes over negative ones, as noted earlier in this section.

The correlation analysis across genders showed no significance of one over another, indicating no significant difference between male and female groups in sense of self-efficacy and the frequency of the strokes received, accepted, or requested. Berne (1996) defined a stroke as a basic human need and not a need for only one of the genders. In line with the TA theory of strokes, it was shown that the correlation between the total frequency of strokes and self-efficacy beliefs of the Iranian EFL teachers does not vary to a significant extent by gender.

For the second research question, the results showed that for receiving positive and negative strokes, the correlations were significant and strong in both groups of novice and professional teachers; nevertheless, no significant difference emerged in the comparison analysis of Fisher's Z. Therefore, although the positive strokes have an undeniable role in enhancing teaching self-efficacy, their effectiveness in the novice and professional teachers is quite the same. Both novice and experienced EFL teachers can build up their self-beliefs via the positive strokes they receive from their learners and colleagues. Similarly, negative strokes can lead to lower self-efficacy beliefs, but still with no significant distinction between the novice and professional teachers.

The above findings are partly in line with studies conducted by Tschannen-Moran and Woolfolk Hoy (2007), and also Shearn (2007). Both studies, conducted in the USA, concluded that the correlations between social persuasions and self-efficacy were non-significant for novice and experienced teachers. However, correlations for requesting strokes were weak and insignificant for both positive and negative categories, which support the results from the analysis of the first research question. This finding can be explained by the same approach in the previous section. According to Steiner (1990), this can be because the strokes which are requested are not considered an adequate source to rely on and boost any self-referent construct. Akbari and Moradkhani (2010), in support of the current finding, insist that experienced teachers tend to have a higher level of global efficacy. This general sense of self-efficacy may lead to accepting positive strokes with ease. Overall, with regard to the discussions above, the second null hypothesis was supported by the results, demonstrating no significant association between the years of EFL teaching experience, teacher self-efficacy, and the frequency of strokes they are exposed to. This result may be explained by the fact that emotional experiences (Hargreaves, 1994; Timostsuk, 2016), not just teaching experiences, are highly requisite for teaching and learning and social practices in educational settings. According to Goldstein (1999), positive and negative emotional experiences are all created in the school context, each of which has the potential to affect learning and teaching.

Based on the results for the third research question, there was no interaction found among gender, experience, stroke frequency, and self-efficacy. Thus, the third null hypothesis was supported. However, investigation into the ANOVA results determined a relationship among stroke groups and EFL teacher self-efficacy. These results showed that teachers with higher self-efficacy exhibit a higher frequency of receiving and accepting positive strokes, which in fact corroborated the findings of the first research question. As described above, EFL teachers with higher self-efficacy had experienced a higher frequency of receiving and accepting positive strokes and a lower frequency of receiving and accepting negative strokes. Furthermore, for positive strokes, female EFL teachers low in self-efficacy actually had a higher sense of self-efficacy than their male counterparts. It can be concluded that, in the current context, positive strokes can play a greater role for female EFL teachers than for males. This finding was not found in any of the available literature.

In summary, the high correlation between the frequency of receiving positive strokes and self-efficacy showed an unmistakable correspondence between the two, which shows that the more the EFL teachers receive positive strokes, the higher their self-efficacy will become. On the contrary, more negative strokes directed at EFL teachers can negatively affect their self-efficacy beliefs. Accepting the positive and negative strokes, whose accomplishment is at the mercy of personal preferences, can also play a greater role in the self-efficacy of EFL teachers for better or worse. For gender and experience, a significant interaction was not found for self-efficacy and stroke frequency, which was again supported by the existing and relevant literature.

## **Conclusions and Implications**

The current research attempted to determine the relationship and interaction between stroke frequency for EFL teachers and their perceived sense of self-efficacy, considering gender and level of experience. Based these results, some conclusions can be drawn. First, the more the EFL teachers were provided with

positive strokes, the higher their self-efficacy would become. On the other hand, the more negative strokes they were provided, the lower their sense of self-efficacy would tend to be.

Second, in accepting and requesting strokes, the more the EFL teachers accepted positive strokes, the higher their self-efficacy would become. Needless to say, the more they accepted negative strokes, their self-efficacy belief would deteriorate. In addition, requested strokes did not play an important role in teaching self-efficacy.

Furthermore, it was found that the participants' self-efficacy depended on stroke frequency, regardless of their gender and years of experience. These results imply that the EFL teachers must be provided with positive conditional strokes whether they are male or female or how experienced they are. As Berne (1996) has suggested, stroking is a need for survival and this fact never changes across genders or through the years. It has been shown in a raft of studies (Allinder, 1994; Glickman & Tamashiro, 1982; Guskey, 1988; Pajares, 2002; Soodak & Podell, 1997) that highly self-efficacious teachers can lead students to achieve their educational goals more successfully.

Therefore, an implication of the current research is that supervisors should encourage stroking in the institutional atmosphere to help develop the self-efficacy of their teachers. In fact, stroking should be an integral component of teachers' jobs, since it can assist them in developing a better relationship with their students, colleagues, and supervisors. It has been shown that teachers high in self-efficacy are more productive and more enduring through career difficulties, and that their students tend to achieve the educational goals more successfully (Glickman & Tamashiro, 1982; Soodak & Podell, 1997). In addition, Teacher Training Course (TTC) trainers need to take the concept of stroking into account, since in the early phases the teaching career, EFL teachers need to enter the workplace with a high sense of self-efficacy. If so, they can bring with them and also utilize a set of innovative and novel techniques in the classroom. In such a case, the learners may find their learning experience more fruitful with a higher sense of achievement. Therefore, a plausible amount of strokes must be provided for TTC trainees regardless of their gender and level of experience; furthermore, they should be given this awareness of stroking patterns to be able to boost their learners' self-efficacy along with themselves at appropriate times and in an appropriate manner.

As the strokes can also be either verbally or nonverbally conveyed, test developers could incorporate strokes in tests (e.g., speaking tests), so that the examinees may have more successful performance. On the other hand, teachers who devise exams (e.g., achievement tests) themselves could try to enhance their own self-efficacy by asking for strokes in the exams. Provided that the test takers supply a considerable amount of positive strokes, teachers can have better self-beliefs about themselves.

Likewise, materials developers and syllabus designers could include some tasks and activities that require some verbal or non-verbal strokes so that both teachers and students would gain a better sense of achievement, and as a result a higher sense of self-efficacy; accordingly, they could more easily reach their objectives which are in line with the educational purposes of the materials. Even the instructions provided in teachers' guide materials could be stated in an encouraging manner to boost teachers' self-efficacy. Finally, it must be noted that strokes as a source of self-efficacy for EFL teachers must be taken into account by administrators and adopted in educational planning.

A set of limitations has influenced the current research. For instance, self-report questionnaires tend to be prone to being completed with socially suitable responses or with little thought. Therefore, there are some potential limitations in that the participants might have completed the questionnaire booklet in this study with some preplanned answers or even hurriedly, with little concern or consideration for the results. This study sought to examine the association between frequency of receiving, accepting, and requesting strokes and perceived self-efficacy of Iranian EFL teachers. The term frequency can be misleading here. Frequency of strokes in this study was assessed through questionnaire data rather than classroom observation. In addition, from a TA point of view, some teachers may not accept strokes due to their backgrounds, which can be delved into psychologically, but since this was beyond the scope of the current research, this point was overlooked.

Although the findings of the current study provide insight on the relationship between stroke frequency

and EFL teachers' perceived sense of self-efficacy, more research in this field is required. For instance, the same study could be conducted on ESP/EAP teachers to investigate whether similar results would emerge. Furthermore, a study of the concept of giving positive strokes, which was overlooked in the current research, can be conducted, using a mixed-methods research design, to investigate whether this variable has any correlation with EFL teachers and students' self-efficacy, since TA materials imply such a relationship. A qualitative study is also required to explore the types of strokes which yield a more significant impact on the EFL teachers' perceived sense of self-efficacy. Hence, follow-up interview sessions or even observations of various types can be included to support these findings.

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### References

- Akbari, R., & Moradkhani, S. (2010). Iranian English teachers' self-efficacy: Do academic degree and experience make a difference? *Pazhuhesh-e Zabanha-ye Khareji*, 56, 25-47.
- Albrecht, M. P. (1995). *A study of self-esteem and locus of control in fourth-and fifth grade boys using transactional analysis and self-awareness* (Doctoral dissertation). Wayne State University, Detroit, Michigan, United States). Retrieved from <http://search.proquest.com/docview/304243185>
- Allen, J. G., & Webb, D. (1975). Stroking, existential position and mood in college students. *Transactional Analysis Journal*, 5(3), 227-233. <https://doi.org/10.1177/036215377500500303>
- Allinder, R. M. (1994). The relationships between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education*, 17(2), 86-95. <http://dx.doi.org/10.1177/088840649401700203>
- Allinder, R. M. (1995). An examination of the relationship between teacher efficacy and curriculum-based measurement and student achievement. *Remedial and Special Education*, 16(4), 247-254. <http://dx.doi.org/10.1177/074193259501600408>
- Aydin, Y. C., & Woolfolk Hoy, A. (2005). What predicts student teacher self-efficacy. *Academic Exchange Quarterly*, 9(4), 123-127.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Bandura, A. (1994). *Self-efficacy*. New York, United States: John Wiley & Sons, Inc.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, United States: Freeman.

- Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. C. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 307-337). Connecticut, United States: IAP.
- Berne, E. (1996). *Games people play: The psychology of human relationships*. London: Penguin books.
- Berne, E. (2010). *What do you say after you say hello*. New York, United States: Random House.
- Chacón, C. T. (2005). Teachers' perceived efficacy among English as a foreign language teachers in middle schools in Venezuela. *Teaching and Teacher Education*, 21(3), 257-272. <https://doi.org/10.1016/j.tate.2005.01.001>
- Dörnyei, Z. (2011). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.
- Farrell, T. S. C. (2012). Novice-Service language teacher development: Bridging the gap between preservice and in-service education and development. *TESOL Quarterly*, 46(3), 435-449. <https://doi.org/10.1002/tesq.36>
- Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569-582. <http://dx.doi.org/10.1037/0022-0663.76.4.569>
- Glickman, C. D., & Tamashiro, R. T. (1982). A comparison of first-year, fifth-year, and former teachers on efficacy, ego development, and problem solving. *Psychology in the Schools*, 19(4), 558-562. [https://doi.org/10.1002/1520-6807\(198210\)19:4%3C558::aid-pits2310190426%3E3.0.co;2-f](https://doi.org/10.1002/1520-6807(198210)19:4%3C558::aid-pits2310190426%3E3.0.co;2-f)
- Goldstein, L. S. (1999). The relational zone: The role of caring relationships in the co-construction of mind. *American Educational Research Journal*, 36(3), 647-673. <https://doi.org/10.2307/1163553>
- Guskey, T. R. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education*, 4(1), 63-69. [http://dx.doi.org/10.1016/0742-051X\(88\)90025-X](http://dx.doi.org/10.1016/0742-051X(88)90025-X)
- Hagen, K. M., Gutkin, T. B., Wilson, C. P., & Oats, R. G. (1998). Using vicarious experience and verbal persuasion to enhance self-efficacy in pre-service teachers: "Priming the pump" for consultation. *School Psychology Quarterly*, 13(2), 169-178. <http://dx.doi.org/10.1037/h0088980>
- Hargreaves, A. (1994). *Changing teachers, changing times*. London, UK: Cassell.
- Hatch, E. M., & Lazaraton, A. (1991). *The research manual: Design and statistics for applied linguistics*. New York, NY: Newbury House Publishers.
- Haynes, L. (2011). *Novice teachers' perceptions of their mentoring experiences*. ProQuest Dissertations & Theses (PQDT). Retrieved from: <http://search.proquest.com/docview/922678446?accountid=13014>
- Heppner, M. J. (1994). An empirical investigation of the effects of a teaching practicum on prospective faculty. *Journal of Counseling & Development*, 72(5), 500-507. <http://dx.doi.org/10.1002/j.1556-6676.1994.tb00980.x>
- Hosseini, S. (2016). *EFL teachers' perceptions of stroke and their application in class: A qualitative study* (Unpublished master's thesis). Ferdowsi University of Mashhad, Iran.
- Irajzad, F., Pishghadam, R., & Shahriari, H. (2017). Examining the stroking behavior of English, Persian, and Arabic school teachers in Iran: A mixed-methods study. *International Journal of Instruction*, 10(1), 219-236. <https://doi.org/10.12973/iji.2017.10114a>
- McKenna, J. (1974). Stroking profile: Application to script analysis. *Transactional Analysis Journal*, 4(4), 20-24.
- Morris, D. B. (2009) *Sources of award-winning professors' self-efficacy: A qualitative investigation* (Unpublished empirical study). Emory University, Atlanta, GA.
- Morris, D. B. (2010). *Sources of teaching self-efficacy: A scale validation* (Doctoral dissertation). Emory University, Atlanta, United States. Retrieved from <http://search.proquest.com/docview/759068345>
- Pajares, F. (2002). Overview of social cognitive theory and of self-efficacy. Retrieved April 5, 2015, from <http://www.uky.edu/~eushe2/Pajares/eff.html>
- Palmer, D. H. (2006). Sources of self-efficacy in a science methods course for primary teacher education students. *Research in Science Education*, 36(4), 337-353. <http://dx.doi.org/10.1007/s11165-005-9007-0>



- Pishghadam, R., & Khajavy, G. H. (2014). Development and validation of the student stroke scale and examining its relation with academic motivation. *Studies in Educational Evaluation*, 43(2), 109-114. <https://doi.org/10.1016/j.stueduc.2014.03.004>
- Rajabnejad, F., Pishghadam, R., & Saboori, F. (2017). On the influence of stroke on willingness to attend classes and foreign language achievement. *Applied Research on English Language*, 6(2), 141-158.
- Rastegar, M., & Memarpour, S. (2009). The relationship between emotional intelligence and self-efficacy among Iranian EFL teachers. *System*, 37(4), 700-707. <http://dx.doi.org/10.1016/j.system.2009.09.013>
- Payton, O. D., Morriss, R. L., & Beale, A. V. (1979). Effects of TA instruction on empathy, self-esteem, control. *Transactional Analysis Journal*, 9(3), 200-204. <https://doi.org/10.1177/036215377900900313>
- Shearn, N. W. (2007). *Sources of efficacy for first-year teachers* (Doctoral dissertation). University of Texas, San Antonio). Retrieved from <http://search.proquest.com/docview/304718294>
- Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology*, 99(3), 611-625. <http://dx.doi.org/10.1037/0022-0663.99.3.611>
- Solomon, C. (2003). Transactional analysis theory: The basics. *Transactional Analysis Journal*, 33(1), 15-22. <https://doi.org/10.1177/036215370303300103>
- Soodak, L. C., & Podell, D. M. (1997). Efficacy and experience: Perceptions of efficacy among pre-service and practicing teachers. *Journal of Research and Development in Education*, 30(4), 214-221.
- Steiner, C. M. (1990). *Scripts people live*. New York, US: Groove Press.
- Steiner, C. M. (2003). Core concepts of a stroke-centered transactional analysis. *Transactional Analysis Journal*, 33(2), 178-181. <https://doi.org/10.1177/036215370303300209>
- Stewart, I., & Joines, V. (2008). *TA today: A new introduction to transactional analysis*. Chapel Hill, US: Lifespace Pub.
- Stronge, J. H., Tucker, P. D., & Hindman, J. L. (2004). *Handbook for qualities of effective teachers*. Virginia, USA: Association for Supervision and Curriculum Development (ASCD).
- Timostsuk, I. (2016). Primary science teaching- Is it integral and deep experience for students? *Discourse and Communication for Sustainable Education*, 7(1), 82-99. <https://doi.org/10.1515/dcse-2016-0006>
- Tschannen-Moran, M., Woolfolk Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202-248. <http://dx.doi.org/10.3102/00346543068002202>
- Tschannen-Moran, M., & Woolfolk Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783-805. [http://dx.doi.org/10.1016/S0742-051X\(01\)00036-1](http://dx.doi.org/10.1016/S0742-051X(01)00036-1)
- Tschannen-Moran, M., & Woolfolk Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*, 23(6), 944-956. <http://dx.doi.org/10.1016/j.tate.2006.05.003>
- Treat, R. J. (1977). An additional note on the stroking profile. *Transactional Analysis Journal*, 7(3), 248-248. <https://doi.org/10.1177/036215377700700317>
- Wheatley, K. F. (2005). The case for reconceptualizing teacher efficacy research. *Teaching and Teacher Education*, 21(7), 747-766. <http://dx.doi.org/10.1016/j.tate.2005.05.009>
- Woolfolk Hoy, A., & Burke-Spero, R. (2005). Changes in teacher efficacy during the early years of teaching: A Comparison of four measures. *Teaching and Teacher Education*, 21(4), 343-356. <https://doi.org/10.1016/j.tate.2005.01.007>
- Woollams, S., Brown, M., & Huige, K. (1976). *Transactional analysis in brief*. Huron Valley, Oakland: Huron Valley Institute.
- Yazdan Pour, H. (2015). *Constructing and validating a teacher stroke scale and examining its*

*relationship with burnout* (Unpublished master's thesis). Ferdowsi University of Mashhad, Iran.

## Appendix A

## Teacher Self-Efficacy Scale

Direction: Please put a check mark next to the box which best describes your perceptions as an English teacher.	Not certain at all	Quite uncertain	No idea	Quite certain	Absolutely certain
<b>How certain are you that you can...</b>					
1. Explain central themes in your subjects so that even the low-achieving students understand.	1	2	3	4	5
2. Get all students in class to work hard with their schoolwork.	1	2	3	4	5
3. Cooperate well with most parents.	1	2	3	4	5
4. Successfully use any instructional method that the institute decides to use.	1	2	3	4	5
5. Organize schoolwork to adapt instruction and assignments to individual needs.	1	2	3	4	5
6. Maintain discipline in any class or group of students.	1	2	3	4	5
7. Find adequate solutions to conflicts of interest with other teachers.	1	2	3	4	5
8. Provide good guidance and instruction to all students regardless of their level of ability.	1	2	3	4	5
9. Control even the most aggressive students.	1	2	3	4	5
10. Wake the desire to learn even among the lowest achieving students.	1	2	3	4	5
11. Provide realistic challenge for all students even in mixed ability classes.	1	2	3	4	5
12. Answer students' questions so that they understand difficult problems.	1	2	3	4	5
13. Collaborate constructively with parents of students with behavioral problems.	1	2	3	4	5
14. Get students with behavioral problems to follow classroom rules.	1	2	3	4	5
15. Get students to do their best even when working with difficult problems.	1	2	3	4	5
16. Explain subject matter so that most students understand the basic principles.	1	2	3	4	5
17. Manage instruction regardless of how it is organized (group composition, mixed age groups, etc.).	1	2	3	4	5
18. Adapt instruction to the needs of low-ability students while you also attend to the needs of other students in class.	1	2	3	4	5
19. Get all students to behave politely and respect the teachers.	1	2	3	4	5
20. Manage instruction even if the curriculum is changed.	1	2	3	4	5

21. Motivate students who show low interest in schoolwork.	1	2	3	4	5
22. Cooperate effectively and constructively with other teachers, for example, in teaching teams.	1	2	3	4	5
23. Organize classroom work so that both low- and high-ability students work with tasks that are adapted to their abilities.	1	2	3	4	5
24. Teach well even if you are told to use instructional methods that would not be your choice.	1	2	3	4	5
25. Get your students to trust you.	1	2	3	4	5
26. Use your abilities to make the institute educationally a safe place.	1	2	3	4	5
27. Enhance collaboration between teachers and the administration to make the institute run effectively.	1	2	3	4	5
28. Use a variety of assessment methods properly.	1	2	3	4	5
29. Get the instructional materials and equipment you need.	1	2	3	4	5
30. Influence the decisions that are made in the institute.	1	2	3	4	5

### Appendix B

#### Stroking Profile

Please use crosshatching to mark the frequency by which you receive positive or negative strokes **from your students, colleagues, and supervisors.**

	How often do you receive + strokes?	How often do you accept + strokes?	How often do you ask for + strokes?
always			
very frequently			
frequently			
often			
seldom			
never			
	Receiving	Accepting	Asking for
never			
seldom			
often			
frequently			
very frequently			
always			
	How often do you receive - strokes?	How often do you accept - strokes?	How often do you ask for - strokes? (directly or indirectly)