



Citation for published version:

Derakhshan, A, Eslami, Z, Curle, S & Zhaleh, K 2022, 'Exploring the predictive role of teacher immediacy and 'stroke' behaviors in English as a Foreign Language university students' academic burnout', *Studies in Second Language Learning And teaching*, vol. 12, no. 1, pp. 87-115. <https://doi.org/10.14746/ssllt.2022.12.1.5>

DOI:

[10.14746/ssllt.2022.12.1.5](https://doi.org/10.14746/ssllt.2022.12.1.5)

Publication date:

2022

Document Version

Publisher's PDF, also known as Version of record

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Exploring the predictive role of teacher immediacy and stroke behaviors in English as a foreign language university students' academic burnout

Ali Derakhshan

Golestan University, Gorgan, Iran

<https://orcid.org/0000-0002-6639-9339>

a.derakhshan@gu.ac.ir

Zohreh R. Eslami

Texas A&M University, College Station, USA

<https://orcid.org/0000-0003-2969-5056>

zeslami@tamu.edu

Samantha Curle

the University of Bath, United Kingdom

<https://orcid.org/0000-0003-3790-8656>

samanthamcurle@gmail.com

Kiyana Zhaleh

Allameh Tabataba'i University, Tehran, Iran

<https://orcid.org/0000-0002-0918-5246>

k_zhaleh97@atu.ac.ir

Abstract

To expand the literature on the rather new concept of student burnout, the present study examined the influence of teacher immediacy and stroke variables on English as a Foreign Language (EFL) students' experience of burnout. To fulfill this aim, a group of 631 undergraduate EFL students from various universities in Iran answered questionnaires including the *Immediacy Behavior Scale*, the *Student Stroke Scale*, and the *Maslach Burnout Inventory-Student*

Survey. The results of confirmatory factor analysis (CFA) of immediacy and burnout scales demonstrated the validity of the two scales in the Iranian EFL context. Subsequently, Pearson multiple correlation coefficients and structural equation modeling (SEM) were used to analyze the data. It was found that student burnout subscales negatively and significantly correlated with teacher immediacy and stroke subscales. Moreover, the results indicated that teacher immediacy and stroke variables, in combination with their subscales, could predict student burnout. On the whole, it can be concluded that teacher immediacy and stroke concepts, characterized as positive teacher interpersonal communication behaviors enhancing rapport and positive interaction between the teacher and students in EFL contexts, are potential preventers of negative student-related outcomes such as burnout.

Keywords: English as a foreign language; positive interpersonal communication; student burnout; teacher immediacy; teacher stroke

1. Introduction

Many years of research in instructional communication have recurrently confirmed the influential role that instructor positive communication behaviors and instructor-student relationships play in student academic outcomes (Frymier et al., 2019; Xie & Derakhshan, 2021), including student engagement, learning, motivation, class attendance, learning loss, anxiety, and burnout (Houser & Hosenek, 2018). Effective instructor-student relationships bring about classroom vitality and are an essential aspect of classroom climate (Pishghadam et al., 2021), for which neither the instructor nor the student is individually responsible (Delos Reyes & Torio, 2020). The importance of favorable instructor-student relationships and interactions is even more highlighted in the English as a foreign language (EFL) context, where students typically do not receive the target language (TL) input outside the confines of the classroom (Pishghadam et al., 2021), and classes are more relationship-based (Mercer & Dörnyei, 2020). The TL knowledge is normally learned and used through various modes of communication since language learning is essentially social (Mercer & Gkonou, 2020). Thus, interactions that occur in second or foreign language (L2) classrooms play a crucial part in increasing students' TL acquisition (Wang et al., 2019), and engagement (Mercer & Dörnyei, 2020), as well as decreasing their anxiety (Ballester, 2015) and burnout (Gholamrezaee & Ghanizadeh, 2018).

In this regard, Ballester (2015) argues that positive interactions between EFL students and the teacher facilitate L2 learning and allow them to display their true characteristics and talents. Following the recent flowering of positive

psychology in SLA (Mercer et al., 2018; Wang et al., 2021), it is posited that positive emotions, arising from positive teacher-student relationships and pleasant classroom environments, are among the most important contributors to successful L2 teaching and learning (Dewaele et al., 2019; Joe et al., 2017). Positive class atmosphere, teacher understanding, attention to and recognition of students, and teacher positive attitudes and care toward students promote high quality of teacher-student relationships (Li et al., 2018; Xie & Derakhshan, 2021). These factors also contribute to fulfilling L2 students' need for emotional support and fostering an enjoyable L2 learning environment (Khajavy et al., 2018; Pavelescu & Petrić, 2018). They can also prevent undesirable student academic outcomes such as burnout (Cakir, 2015).

Care, humor, clarity, and immediacy are all instances of positive teacher communication behaviors that facilitate students' perceived understanding of the instructor and enable teachers to achieve their instructional goals. Through using these communication behaviors, teachers can empower learners to engage with the course content and the teacher, and finally learn (Finn & Schrod, 2012; Mercer & Dörnyei, 2020; Myers et al., 2018; Xie & Derakhshan, 2021). Two of such positive teacher interpersonal variables examined in the present study are teacher immediacy and stroke, both found to enhance the experience of students' pleasant academic outcomes and mitigate the occurrence of unfavorable ones such as burnout (e.g., Derakhshan, 2021; Gholamrezaee & Ghanizadeh, 2018; Pishghadam & Khajavy, 2014). Teacher immediacy and teacher stroke are respectively defined as psychological and physical proximity of individuals (Richmond, 2002) and any action taken to appreciate another person's worth and presence (Shirai, 2006). Xie and Derakhshan (2021) called on researchers worldwide to shift their long-held focus from studying teacher interpersonal communication behaviors like immediacy in the American context to other dissimilar and less-investigated cultures. Such studies help better understand the functioning of teacher interpersonal communication behaviors and expand the scant literature on the fledgling line of culture-centered instructional communication research.

To address this issue, the present research project replicates previous studies in the immediacy literature, which have demonstrated the influential role of teacher immediacy behaviors in students' response variables in non-Iranian cultures (e.g., Estep & Roberts, 2015; Finn & Schrod, 2012; Kelly et al., 2015; Violanti et al., 2018). In this study, we replicate them in the Iranian university EFL context by exploring the role of teacher immediacy behaviors in students' experiences of academic burnout. Furthermore, in the present study, we added teacher stroke, which is conceptualized by Pishghadam and Khajavy (2014) and Pishghadam et al. (2015) as a sub-component of teacher care and is a new and under-researched teacher instructional behavior variable, to this relationship by drawing

on the rhetorical/relational goal theory (Mottet et al., 2006) the previous empirical studies (e.g., Finn & Schrodt, 2012; Violanti et al., 2018) which support the argument that different teacher communication behaviors (e.g., immediacy and stroke) can interact to impact students' response variables.

2. Literature review

2.1. Student burnout

Freudenberger (1974) conceptualized the notion of burnout as a negative occupational state being prevalent among and restricted to those individuals working in the service industries (Maslach & Schaufeli, 1993). Following its emergence, the most widely accepted definition of burnout as a multi-faceted concept was proposed by Maslach and Jackson (1984), which included the dimensions of reduced personal accomplishment, emotional exhaustion, and cynicism. Burnout is typically measured through the *Maslach Burnout Inventory* (MBI) (Maslach & Jackson, 1981). The scale originally focused only on employees that needed to interface with other people in the service industry. However, recently, due to a broader conceptualization of burnout, Maslach et al. (2001) extended this phenomenon to any type of profession, invalidating the previous belief that burnout is only experienced by people who interact with other people in their day-to-day work. The *MBI-General Survey* was therefore developed, making it possible to examine burnout across various jobs and occupations (Schaufeli et al., 1996).

Later it was found that burnout is also experienced by students within higher education settings. Students' day-to-day academic responsibilities may be considered to be work, and therefore, the meaning of burnout was redefined (Schaufeli & Taris, 2005). Student burnout is characterized by feelings of exhaustion resulting from high levels of study demands, feelings of incompetence and inefficiency as a higher education student, and being detached from (and cynical towards) one's studies. The *MBI-General Survey* was then adapted and revalidated (Schaufeli et al., 2002) to create a unique instrument measuring university students' burnout named the *MBI-Student Survey*.

Since 2005, a number of factors have been identified that can be triggered by burnout, namely decreased emotional intelligence (Roohani & Esmailvandi, 2016), assignment overload, teacher behavior and attitude, and lack of motivation (Cushman & West, 2006). Teacher interpersonal behaviors were also found to prevent students' experience of burnout (Cushman & West, 2006). Numerous studies have demonstrated the crucial role that teachers play in the academic experience and performance of their students in both general education and language education (e.g., Mercer & Gkonou, 2020; Pishghadam al., 2019). Despite

these significant findings, a noticeable gap exists in this research area. Except for Cushman and West's (2006) study of teacher behaviors and attitudes along with two other studies of teacher immediacy in relation to student burnout (Cakir, 2015; Gholamrezaee & Ghanizadeh, 2018), no studies have explored the effect of positive teacher communication behaviors on students' level of burnout.

Gholamrezaee and Ghanizadeh (2018) examined whether instructor verbal and non-verbal immediacy behaviors affected 206 Iranian EFL students' cognitive learning, emotional state, and the emotional exhaustion dimension of student burnout. The results indicated that (non)verbal immediacy cues significantly influenced student-related factors of self-esteem, cognitive learning, self-actualization, burnout, and stress tolerance. Instructor (non)verbal immediacy negatively affected EFL learners' emotional exhaustion experience. The authors interpreted this finding by suggesting that when EFL teachers praise students' efforts, are available for them before or after class, are fun, and communicate with them outside class, students are less inclined to become emotionally exhausted. These results are in line with the findings of another study by Cakir (2015), who attempted to examine the influences of teacher immediacy and student burnout variables on 329 Turkish pre-service instructors' empowerment and resistance. Immediacy correlated significantly negatively with reduced personal accomplishment, emotional exhaustion, and cynicism. Drawing on the existing empirical evidence, the present study, therefore, makes an original contribution to knowledge in the field of English language teaching and learning by filling this gap in the research literature.

2.2. Teacher immediacy

As indicated by Gabryś-Barker (2016), instructors employ positive interpersonal behaviors such as immediacy to accomplish various goals. Such behaviors include building teacher-student rapport, creating an enjoyable language learning environment, and communicating instructional learning goals (Finn & Schrodtt, 2012; Pavelescu & Petrić, 2018). Positive teacher interpersonal behaviors in the classroom directly influence L2 learners' academic experiences and gains (Li et al., 2018; Xie & Derakhshan, 2021). As one of such interpersonal behaviors, immediacy, originally introduced by Mehrabian (1969), pertains to the extent of psychological or physical proximity between individuals (Richmond, 2002), including the verbal and non-verbal channels through which immediate behaviors are assessed. Accordingly, in educational research, immediacy concerns the extent to which the teacher and students' relationship is close. To promote student-teacher rapport and closeness, teachers may "give" various immediacy cues to their students (Delos Reyes & Torio, 2020; Derakhshan, 2021). Verbal

teacher immediacy cues can be defined as “verbal messages that show empathy, openness, kindness, praise, feelings of inclusiveness, and willingness to engage students in communication, among others” (Ballester, 2015, p.10). Such verbal cues include having a sense of humor, promoting discussion, being accessible to students outside the class, and praising students’ efforts (Gorham, 1988). On the other hand, non-verbal immediacy cues refer to non-verbal communicative behaviors that enhance the physical and affective proximity of teachers and students. This, in turn, promotes students’ engagement with their studies, the course content, and the teacher (Derakhshan, 2021). Examples of teacher non-verbal immediacy behaviors are appropriate touching, nods, relaxed body posture, eye contact, smiling, humor, and vocal and facial expressions (Richmond et al., 1987).

As asserted in the literature (e.g., Kelly & Gaytan, 2020; Kelly, Rice, et al., 2015; Violanti et al., 2018), teacher immediate behaviors are unique to cultures. Gregersen (2010) explains this culturally bounded nature of teacher immediacy behaviors by stating that psychological and physical closeness (i.e., immediacy) is defined, accepted, and enacted differently in different cultures. Teacher immediacy has received unparalleled attention from researchers in comparison to other teacher interpersonal communication behaviors (e.g., Derakhshan, 2021; Frymier et al., 2019; Kelly & Gaytan, 2020) since its emergence. Kelly et al. (2015), Kelly and Gaytan (2020), and Violanti et al.’s (2018) studies investigated perceived immediacy in addition to instructor immediate behaviors. As over-viewed in these studies, teacher immediate behaviors are unique to cultures. However, perceived immediacy, the change in perceived closeness because of those immediate behaviors, is a variable that pertains to all humans. They found that perceived immediacy mediates the relationships between instructor immediate behaviors and students’ responses to those behaviors. Moreover, verbal and non-verbal teacher immediacy cues were found to foster students’ understanding (Finn & Schrodt, 2012), affective and cognitive learning (Violanti et al., 2018), academic motivation (Estep & Roberts, 2015; Frymier et al., 2019), engagement (Derakhshan, 2021; Dixon et al., 2017), willingness to communicate in English (Sheybani, 2019), empowerment (Finn & Schrodt, 2012), and communication self-confidence in English (Fallah, 2014).

Such research findings can be accounted for in terms of the rhetorical/relational goal theory (Frymier et al. 2019; Mottet et al., 2006), which posits that students’ and instructors’ goals interact, and instructors employ positive communication behaviors, such as immediacy, to satisfy students’ academic goals and wants including motivation, learning, engagement, and empowerment (Houser & Hosek, 2018). Thus, when instructors employ appropriate (non)verbal communication behaviors like immediacy, care, or clarity, positive instructional outcomes

increase and negative academic outcomes are reduced (Finn & Schrodtt, 2012; Myers et al., 2018). Student burnout is one such negative outcome negatively associated with teachers' employment of (non)verbal immediacy cues (Cakir, 2015; Gholamrezaee & Ghanizadeh, 2018). Mazer (2013) also developed a model positing that, when mediated by teacher emotional and cognitive interest, teacher immediacy predicts student engagement, which is the positive counterpart of student burnout. Teacher immediacy behaviors have been reported to mitigate students' level of pressure, amount of learning loss, L2 anxiety (Ballester, 2015), classroom and quantitative reasoning anxiety (Kelly et al., 2015), and academic burnout (Cakir, 2015; Gholamrezaee & Ghanizadeh, 2018). Thus, it seems that instructors' employment of (non)verbal immediacy cues can potentially prevent students' academic burnout experience in view of the increase in the psychological closeness which is likely to follow.

2.3. Teacher stroke

One of the approaches shedding light on the nature and promotion of positive relationships between individuals is Eric Berne's transactional analysis (TA), which is defined as "a theory of personality and a systematic psychotherapy for personal growth and personal change" (Stewart & Joines, 1987, p. 3). The argument is that when applied in educational settings, TA can facilitate effective teacher-student communication and prevent the occurrence of ineffective confrontations (Stewart & Joines, 1987). A noteworthy concept within TA theory, with clear relevance to education, is stroke (Berne, 1988). Stroke is considered to be any action taken to appreciate another person's worth and presence (Shirai, 2006) or simply put the "unit of recognition" (Stewart & Joines, 1987, p. 72).

According to Stewart and Joines (1987), "any kind of stroke is better than no stroke at all" (p. 73), and when positive strokes are not received, negative strokes are sought. Strokes are constantly and unconsciously given and received by individuals. In any stroke exchange, the person who gives strokes is named the stroker, and the one who receives strokes is called the strokee. Individuals can, however, exchange their roles as the stroker and strokee in any interaction (Pishghadam & Farkhondehfar, 2017). Strokes are categorized based on whether they are positive or negative, conditional or unconditional, and verbal or non-verbal (Stewart & Joines, 1987). Positive strokes are perceived by the receiver to be satisfactory and pleasing, whereas negative strokes are perceived to be undesirable. Unconditional strokes pertain to what people are, whereas conditional strokes relate to what people do. Finally, verbal strokes are utterances that may be as short as saying "Hello" or may be as long as a conversation (Stewart & Joines, 1987). In L2 instruction and learning environments, the stroker

(i.e., the teacher) can satisfy the need of the strokees (i.e., the students) to be noticed through giving stroking cues such as smiling, praising, making eye contact, encouraging, and calling out names (Irajzad et al., 2017). According to Freedman (1993), teacher stroke can result in students' academic success as learners tend to perform better in stroke-rich situations.

Based on the review of the instructional communication literature, it can be stated that teacher immediacy, stroke, and confirmation are three distinct but similar instances of teacher positive interpersonal communication behaviors. Regarding their similarities, first, teacher stroke, immediacy, and confirmation are crucial interpersonal cues facilitating positive interactions and rapport between an instructor and students (Derakhshan, 2021; Johnson & LaBelle, 2020; Pishghadam, Derakhshan, et al., 2021; Pishghadam & Khajavy, 2014); and, second, immediacy, stroke, and confirmation concepts all involve verbal and non-verbal communication aspects of the teacher-student relationship, including behaviors such as smiling, making eye contact, and having a sense of humor (Ellis, 2000; Frymier et al., 2019; Irajzad & Shahriari, 2017). Such teacher relational behaviors tend to be positively related to each other (Myers et al., 2014). However, it should be noted that teacher stroke is distinct from both teacher immediacy and confirmation in that while stroke refers to teacher cues that satisfy students' innate emotional hunger for recognition and acknowledgment (Berne, 1988), immediacy refers to the degree to which the teacher and students' relationship is close (Richmond, 2002), and confirmation pertains to teachers' communicative attempts to convey to students that they are valuable (Ellis, 2000). Moreover, Pishghadam and Khajavy (2014) and Pishghadam et al. (2015) conceptualized stroke as a sub-component of teacher care.

All in all, according to the rhetorical/relational goal theory, most of the teachers' communication behaviors can potentially address the relational and rhetorical goals of teachers and the needs of students (Houser & Hosek, 2018; Mottet et al., 2006; Myers et al., 2018). Thus, in this study, it is argued that teacher stroke, which is a sub-component of teacher care, plays a complementary role to teacher (non)verbal immediacy to facilitate students' positive outcomes and prevent the occurrence of negative experiences such as academic burnout.

In contrast to teacher immediacy, which has been extensively studied within the educational context (see Kelly & Gaytan, 2020), there is a dearth of research on teacher stroke. The few studies focusing on the concept of stroke have been mostly limited to the EFL (Hosseini, 2016; Irajzad, Pishghadam, et al., 2017; Irajzad & Shahriari, 2017; Namaghi, 2016; Noorbakhsh et al., 2018; Pishghadam et al., 2019; Pishghadam et al., 2021; Yazdan Pour, 2015). Additionally, most of these studies have been motivated by the design and development of the *Student Stroke Scale* in the Iranian EFL university context (Pishghadam & Khajavy, 2014). Teachers' stroke has been associated with L2 students' academic success (Freedman, 1993), motivation

(Pishghadam & Khajavy, 2014), L2 learning, willingness to attend English classes (Pishghadam et al., 2021), and socioeconomic status (Irajzad & Shahriari, 2017). In this study, we examined the predictability of student burnout through both teacher stroke and immediacy based on the additivity hypothesis (Comadena et al., 2007) which posits that the positive main effect of teacher immediacy can be combined with those of other positive instructional behaviors to develop an ideal learning environment for learners. Thus, it is hypothesized that teacher stroke behaviors can complement teacher verbal and non-verbal immediacy behaviors to mitigate Iranian university EFL students' academic burnout experiences. Since positive teacher communication behaviors (e.g., stroke and immediacy) can facilitate desirable student academic outcomes, it is expected that these behaviors may potentially mitigate undesirable student experiences such as burnout. All in all, based on what was mentioned so far, we posed three hypotheses in this study (see Figure 1):

- H1: Instructor (non)verbal immediacy cues negatively predict Iranian EFL students' burnout experience.
- H2: Iranian EFL teachers' stroke behaviors correlate positively and significantly with their (non)verbal immediacy behaviors.
- H3: Teacher stroke behaviors negatively predict Iranian EFL students' academic burnout.

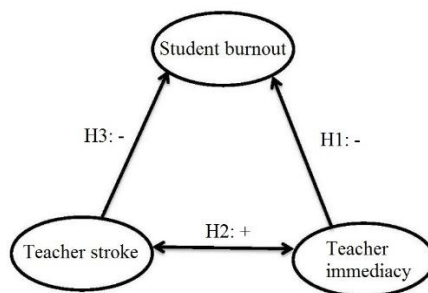


Figure 1 The hypothesized model of teacher stroke, teacher immediacy, and student burnout

3. Methodology

3.1. Participants

Based on a convenience sampling procedure, 631 participants responded to the scales. They were undergraduate students of teaching English as a foreign language

(TEFL), English translation, or English language and literature studying at diverse universities in Iran. Regarding their context, they were from different provinces of Iran, such as Golestan, Mazandaran, Tehran, Qazvin, and Khorasan. The sample comprised 183 male and 470 female participants. The participants' age ranged from 18 to 40. The participants also differed in their undergraduate status, as they were freshmen, sophomores, juniors, and seniors in the sample. The students were from different self-perceived English language proficiency levels ranging from intermediate, advanced, to fluent speakers of English. The reason for choosing the participants from universities located in various parts of Iran, different age groups, levels of proficiency, gender, and undergraduate status was to increase the extrapolation of the present study findings to the statistical population of Iranian EFL undergraduate students.

3.2. Research instruments

3.2.1. *Immediacy Behavior Scale*

For the development of the *Immediacy Behavior Scale*, Gorham (1988) added 20 items related to verbal teacher immediacy to the 14-item *Nonverbal Immediacy Scale* (Richmond et al., 1987). This scale, developed and validated with a group of American undergraduate communication students, consisted of 34 items, the responses to which can range from 0 ("never") to 4 ("very often"). These items described various examples of teachers' verbal immediacy cues (e.g., Item 2: "My teacher asks questions or encourages students to talk;" Item 4: "My teacher uses humor in class") and nonverbal immediacy cues (e.g., Item 24: "My teacher looks at class while talking;" Item 33: "My teacher smiles at individual students in the class"). The learners were required to rate how frequently one of their English university teachers, with whom they had class at the time of completing the scale, showed these communication behaviors toward them. Items 9, 12, 15, 18, 21, 23, 26, 29, 30, and 31 were marked as nonimmediate for which reverse scoring was done during data analysis. Furthermore, Item 27, "Touches students in the class," was removed due to the socio-cultural values of the population of this study and because it was not suitable for this level of students. Previous reliability estimates reported for the scale and its subscales ranged from .80 to .94 (Gorham, 1988; Richmond et al., 1987). To ensure the factor structure of the scale in the cultural context of the present study, confirmatory factor analysis (CFA) was run on the participants' responses to this scale.

3.2.2. *Student Stroke Scale*

This scale was originally designed and validated with a group of Iranian EFL and non-EFL university students (Pishghadam & Khajavy, 2014). The students were

asked to rate how frequently one of their English university teachers, with whom they had classes at the time of completing the scale, gave a stroke to them inside and outside the classroom. The scale contains 18 items measuring various kinds of stroke (i.e., negative, positive, non-verbal, and verbal strokes) on a 5-point Likert scale which ranges from (1) "never" to (5) "always" (e.g., Item 1: "My teacher smiles at me;" Item 4: "My teacher pays attention to me;" Item 9: "My teacher dedicates enough time to me in class"). The results of exploratory factor analysis and structural equation modelling (SEM) in the original study revealed that the items of the scale loaded onto the four factors of valuing (4 items: 9, 10, 11, 12), non-verbal stroke (4 items: 1, 2, 3, 4), verbal stroke (6 items: 5, 6, 7, 8, 13, 17), and classroom activities (4 items: 14, 15, 16, 18).

3.2.3. Maslach Burnout Inventory (MBI) Student Survey

Schaufeli et al. (2002) validated the student version of the MBI (Maslach & Jackson, 1981) with university students from the Netherlands, Spain, and Portugal. It assesses higher education students' level of academic burnout. The *MBI Student Survey* includes 15 items measuring the three subscales of cynicism (four items; e.g., Item 2: "I have become less enthusiastic about my studies"), emotional exhaustion (five items; e.g., Item 1: "I feel emotionally drained by my studies"), and professional efficacy (six items; e.g., Item 4: "I feel stimulated when I achieve my study goals"). The responses range from from 0 ("never") to 6 ("always"). Furthermore, CFA was run to ensure fitness of the present study data to this scale in the Iranian EFL university context. Table 1 presents means, standard deviations, and alpha reliability for all measures.

Table 1 Means, standard deviations, and alpha reliability for all measures

	Mean (SD)	Cronbach's alpha reliability coefficients
Teacher immediacy	72.960 (12.165)	.79
Verbal immediacy	41.820 (9.113)	.73
Non-verbal immediacy	31.139 (5.795)	.77
Teacher stroke	51.297 (13.422)	.91
Valuing	10.412 (3.922)	.92
Classroom activities	13.500 (3.803)	.89
Non-verbal stroke	10.568 (3.025)	.83
Verbal stroke	16.816 (5.030)	.87
Student burnout	29.920 (17.576)	.91
Exhaustion	10.497 (7.799)	.91
Cynicism	6.451 (6.731)	.92
Reduced professional efficacy	12.971 (7.167)	.84

3.3. Procedures of data collection and analysis

Before gathering the data, the general aim of the study and specific instructions for filling out the questionnaires were presented to the students. Informed consent to participate in this study was also obtained. The participants were assured regarding the confidentiality of the data they provided to the researchers. The three questionnaires concerning immediacy, stroke, and burnout were prepared consecutively in a single Google Form as a composite questionnaire. Then, the link to the questionnaire was sent to the participants via email. The participants were supposed to click on the invitation link to complete the questionnaires. First, the students were required to rate one of their English language university professors with regard to the frequency of his/her immediacy and stroke behaviors, and then, to rate their own level of academic burnout. Initially, to check whether the data approved the normality assumption or not, the Kolmogorov-Smirnov test was run (see Table 2). It is argued that when the p value is larger than .05, the normality assumption is confirmed. According to Table 2, it is obvious that data pertaining to immediacy ($p = .08$), burnout ($p = .11$), and stroke ($p = .06$) are all distributed normally. To check the validity of the immediacy and burnout scales, CFA was employed utilizing the 24th Version of Amos. Furthermore, Pearson multiple correlation coefficients were obtained through running the 24th Version of SPSS. Finally, to examine the hypothesized predictive linkages in Figure 1, SEM was utilized using Amos (Version 24). Because of the "sensitivity of large sample sizes in the chi-squared statistics" (Finn & Schrodt, 2012, p. 120), comparative fit index (CFI), the good fit index (GFI), normed fit index (NFI), root mean square error of approximation (RMSEA), and Chi-square divided by the degrees of freedom (χ^2/df) were checked for assessing the model-to-data fit.

Table 2 The results of Kolmogorov-Smirnov test

	Statistic	Df	Sig.
Teacher Immediacy	.05	631	.08
Student Burnout	.04	631	.11
Teacher Stroke	.06	631	.06

4. Results

4.1. Confirmatory factor analyses

The results of CFA of the teacher immediacy scale are displayed in Figure 2. This inventory has two sub-factors: verbal and non-verbal immediacy. Goodness of

fit indices were checked to examine the model fit to the data. Because some measurement models did not show adequacy to the data, the researchers made some modifications to the model. These modifications included the removal of two non-verbal immediacy items (Item 21: “Sits behind desk while teaching” and Item 28 “Moves around the classroom while teaching”) due to low loadings (below 0.3). According to Hair Jr et al. (2009, p. 16), for samples larger than 350, loadings below 0.3 would be non-significant and must be removed as they endanger convergent validity. Therefore, 31 items remained in the last draft of the questionnaire (see Appendix A). Loadings of the verbal immediacy, with 20 items ranged from .34 to .63, and loadings of the non-verbal immediacy, with 11 items, ranged from .32 to .62. The goodness of fit indices before and after modification are presented in Table 3. It demonstrates that all the goodness of fit indices is within the acceptable range, thus proving that the instrument has acceptable validity after modification, and the expected two-factor structure of the scale fitted to the data of the sample.

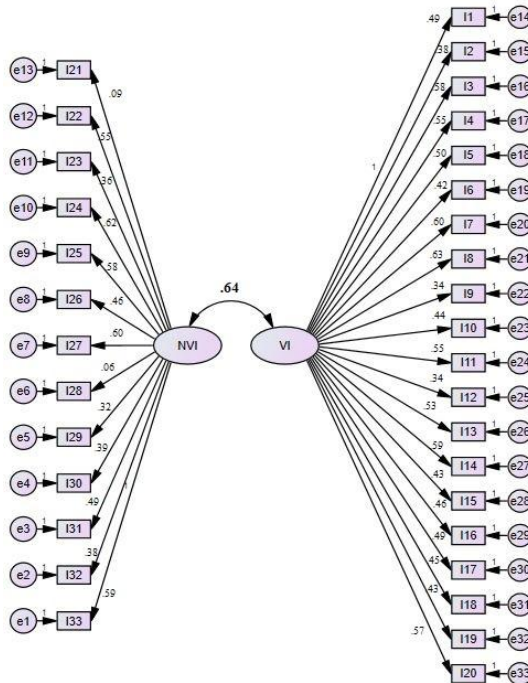


Figure 2 CFA model of the teacher immediacy scale

Table 3 Goodness of fit indices for the teacher immediacy scale

	X ² /df	GFI	CFI	RMSEA
Acceptable fit	<3	>.90	>.90	<.08
Model	3.04	.89	.88	.08
Revised model	2.97	.92	.91	.07

To assess the validity of the burnout inventory, CFA was used. Accordingly, the linkages between the three sub-constructs of the scale were estimated, and the results are presented in Figure 3. This instrument has three sub-factors: exhaustion, cynicism, and professional efficacy. Scores of professional efficacy were reversed for the analysis of data, and therefore it assesses professional inefficacy. Loadings of the exhaustion factor with five items ranged from .75 to .88, loadings of the cynicism factor with four items ranged from .79 to .94, and, finally, loadings of the professional inefficacy factor with six items ranged from .49 to .88. Goodness of fit indices were employed to assess the model-to-data fit, as presented in Table 4. It shows that all the goodness of fit indices is within the acceptable range. Thus, the instrument enjoyed acceptable validity in the Iranian EFL context (see Appendix B).

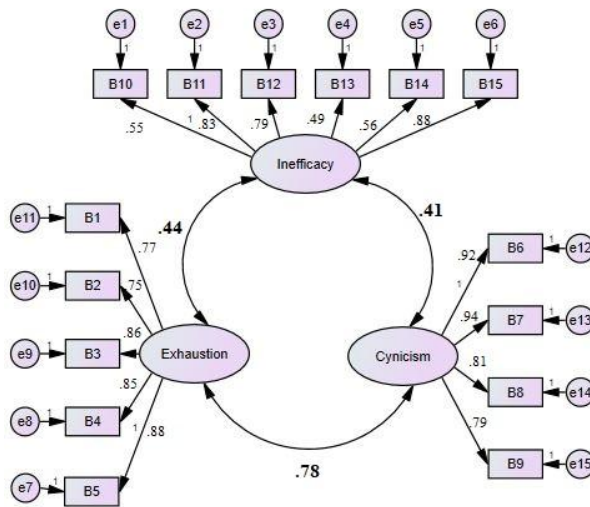


Figure 3 CFA model of the student burnout scale

Table 4 Goodness of fit indices for the student burnout scale

	X ² /df	GFI	CFI	RMSEA
Acceptable fit	<3	>.90	>.90	<.08
Model	2.52	.97	.93	.06

4.2. Correlational analysis

To examine the associative linkages among stroke, immediacy, and burnout subscales, Pearson multiple correlation coefficients were calculated. The data met all the assumptions for this analysis. There were no missing data. Table 5 provides the correlations between immediacy, stroke, and burnout subscales. Accordingly,

the emotional exhaustion, reduced professional efficacy, and cynicism subscales of student burnout negatively and significantly correlated with verbal and non-verbal immediacy subscales (ranging from $r = -.089$ to $-.282$) These results represent small effect sizes, according to Plonsky and Oswald (2014), as the variance accounted for ranged from 0.7% to 8%. Reduced professional efficacy correlated negatively and significantly with all stroke subscales (ranging from $r = -.254$ to $-.433$). Among these subscales, verbal ($r = -.254$) and non-verbal ($r = -.372$) strokes accounted for 6.5% and 13.8% of the variability, respectively, representing small effect sizes. However, valuing ($r = -.411$) and classroom activities ($r = -.433$) signified medium effect sizes by explaining 16.9% and 18.8% of the variability, observed respectively. Cynicism significantly and negatively correlated with valuing ($r = -.143$, representing small effect size, with 2.1.% of the variance being accounted for) and class activities ($r = -.198$, representing a small effect size, with 3.9% of the variance being explained) subscales of stroke. Emotional exhaustion negatively correlated with valuing ($r = -.204$, representing a small effect size, with 4.2% of the variance being explained) and class activities ($r = -.213$, representing a small effect size, with 4.5% of the variability being accounted for) subscales. There were positive significant relationships between all subscales of stroke and immediacy. In the case of non-verbal immediacy, the effect sizes were small and the variabilities explained by all subscales of stroke ranged from 5.7% to 11.4%. This was also the case for verbal immediacy and classroom activity (11.6% of the variability explained) whereas the other three subscales of stroke and verbal immediacy had correlations with medium effect sizes (16.3% to 21.9% of the variance accounted for).

Table 5 Correlations of teacher immediacy, stroke, and student burnout subscales

Subscale	NVI	VI	E	C	RPE	VS	NVS	V	CA
Non-verbal immediacy (NVI)	1.00								
Verbal immediacy (VI)	.297**	1.00							
Exhaustion (E)	-.156**	-.148**	1.00						
Cynicism (C)	-.137**	-.089*	.714**	1.00					
Reduced professional efficacy (RPE)	-.144**	-.282**	.376**	.356**	1.00				
Verbal stroke (VS)	.239**	.445**	-.075	-.035	-.372**	1.00			
Non-verbal stroke (NVS)	.338**	.404**	-.020	-.071	-.254**	.639**	1.00		
Valuing (V)	.300**	.468**	-.204**	-.143**	-.411**	.666**	.527**	1.00	
Classroom activities (CA)	.270**	.341**	-.213**	-.198**	-.433**	.699**	.482**	.663**	1.00

Note. ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed). Correlations indicate effect sizes via their absolute values (Cohen, 1992).

4.3. SEM analysis

To assess whether the proposed model fit the data of this study, fit indices of root mean square error of approximation (RMSEA), comparative fit index (CFI), normed fit

index (NFI), good fit Index (GFI), and Chi-square divided by the degrees of freedom (χ^2/df) were calculated. As stated by Hu and Bentler (1999), to achieve the model-to-data fit, RMSEA must be lower than .08, CFI, and NFI cut values must be larger than .90, and χ^2/df must not be above 3, and GFI must be larger than .90. According to Table 6, in this study, a good fit between the model and the data was revealed (i.e., Chi-square/df ratio (2.14), GFI (.92), CFI (.93), NFI (.91), and RMSEA (.07)).

Table 6 Goodness of fit indices for the proposed model

	RMSEA	NFI	CFI	GFI	X2/df
Acceptable fit	<.08	>.90	>.90	>.90	<3
Model	.07	.91	.93	.92	2.14

Subsequently, the standardized estimates were calculated to investigate the strengths of the predictive relations among the variables. Figure 4 shows the finalized SEM model of the interrelationships between immediacy, stroke, and burnout. As indicated in Table 5 and Figure 4, the findings supported all three hypotheses of this study. Teacher immediacy behaviors ($\beta = -.20, p < .05$) are negative significant predictors of burnout (H1 supported). Teacher stroke behaviors ($\beta = -.27, p < .05$) negatively predict burnout (H3 supported). Finally, stroke was associated significantly, positively with teacher immediacy ($\beta = .52, p < .05$) (H2 supported).

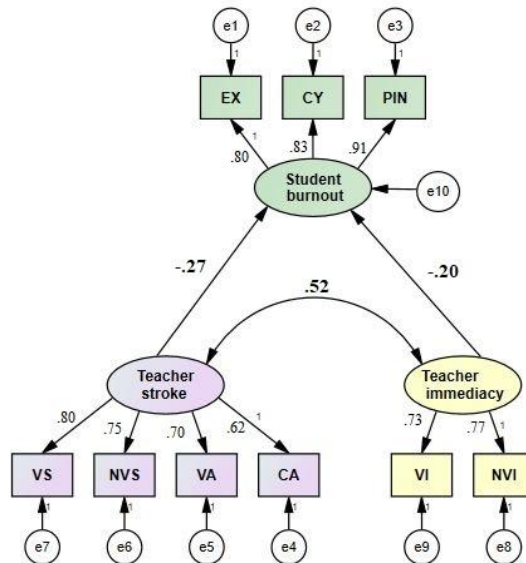


Figure 4 The finalized SEM model of teacher immediacy and stroke as predictors of EFL students' burnout. All parameter estimates are standardized

5. Discussion

The current replication study sought to discover whether there would be associative/predictive relationships between teacher immediacy, stroke, and EFL students' burnout. To this aim, a hypothesized model of stroke, immediacy, and burnout was proposed including three research hypotheses. CFA was first run on the data to check if the scales were characterized by acceptable psychometric properties in the Iranian context. Regarding the immediacy scale, with the omission of two items, the model-to-data fit was reached. However, the burnout scale showed acceptable validity without the necessity of any modification. Subsequently, the correlation results showed that non-verbal immediacy was significantly and negatively linked to cynicism, exhaustion, and personal inefficacy subscales of burnout, while verbal immediacy was negatively associated with exhaustion and personal inefficacy. This finding is in line with previous empirical studies (Kelly & Gaytan, 2020; Mercer & Dörnyei, 2020; Violanti et al., 2018), showing that positive teacher interpersonal behaviors of verbal and non-verbal immediacy foster the creation of a favorable learning environment, which reduces students' experience of burnout.

From a theoretical perspective, the current study lends further credence to rhetorical/relational goal theory (Houser & Hosek, 2018), which posits that instructors' employment of positive teacher interpersonal behaviors, such as (non)verbal immediacy as well as stroking cues, which is a sub-component of teacher care (Myers et al., 2018), helps fulfill students' personal and academic needs. When students' needs are satisfied, their experience of burnout is mitigated. The negative association of burnout and immediacy subscales in this study can also be justified by explaining that language teaching is an emotionally demanding task, necessitating language teachers' interpersonal and emotional understanding of students (Golombek & Doran, 2014). These results are also in congruence with the study of Cakir (2015), finding a reverse association between student burnout and teacher immediacy. Gholamrezaee and Ghanizadeh (2018) also reported that EFL teachers' immediacy is negatively associated with their students' burnout. They justified this finding by stating that when EFL teachers praise students' efforts, are available for them before or after class, are engaging, and effectively communicate with students, students are less inclined to become emotionally exhausted.

Moreover, when there is a positive, caring relationship between EFL students and teachers, students' L2 enjoyment, L2 proficiency, willingness to communicate, and performance are enhanced (Gabryś-Barker, 2016; Khajavy et al., 2018). Given that teacher immediacy behaviors contribute to students' understanding (Finn & Schrodtt, 2012), learning (Frymier et al., 2019; Violanti et al.,

2018), willingness to communicate in English (Sheybani, 2019), engagement (Dixson et al., 2017), and motivation (Estepp & Roberts, 2015), it is logical to assume that, as mentioned in the first hypothesis of this study, teacher immediacy can also reduce student burnout. The results have now provided empirical evidence for this hypothesis.

Results of correlational analyses also showed positive significant relationships between all subscales of stroke and immediacy. Thus, these findings confirmed the second hypothesis of the study. The findings also supported Myers et al.'s (2014) argument that teacher relational behaviors tend to be positively related to each other. Additionally, the correlation between stroke and EFL student burnout subscales revealed that the burnout subscales were negatively related to stroke and most of its subscales (i.e., the more teachers stroked students, the less students experienced burnout). In other words, when a student's hunger for recognition is appeased by the teacher in the instructional context, she/he feels more engaged (Derakhshan, 2021) and is less prone to burnout. Particularly, when teachers provide both verbal and non-verbal strokes, students felt more of a sense of personal accomplishment. The valuing subscale of stroke correlated negatively with emotional exhaustion and personal inefficacy. These results are in line with those of Yazdan Pour's (2015) study, which reported that teacher stroking behaviors negatively relate to EFL teachers' experience of burnout. Although it is recognized that Yazdan Pour's study was concerned with teacher burnout, this state can be experienced by both teachers and learners. Therefore, the results of the present study, in conjunction with those of Yazdan Pour's (2015), lead to the conclusion that teacher stroking behaviors can mitigate the experience of academic burnout both by EFL teachers and learners. This is also in line with TA theory as Berne (1988) argued that when teachers give strokes to their learners, they satisfy those learners' need for recognition. This, in turn, promotes students' positive perceptions that their teacher is credible and effective (Pishghadam & Karami, 2017; Pishghadam, Derakhshan, Zhaleh, 2019; Pishghadam, Derakhshan, Zhaleh, Al-Obaydi, 2021). When such positive perceptions toward the teacher are constructed, it is possible, as found in the present study, that students become less prone to burnout.

Examining the predictability of students' level of burnout by teacher immediacy and teacher stroke, SEM analysis indicated that both teacher immediacy and stroke were influential in EFL students' burnout. Thus, the results confirmed the first and third hypotheses of the study. The findings also corroborated and extended previous research on the mitigating role of positive instructor communication behaviors in students' experience of academic burnout. With regard to teacher immediacy (both verbal and non-verbal cues), these results were the same as the ones found in Gholamrezaee and Ghanizadeh's (2018) study. Cushman and West (2006) also reported similar findings, concluding that

negative teacher attitudes and behaviors (the opposite of teacher immediacy) are contributing factors to students' experience of burnout. Teachers who use immediacy behaviors are more prone to advance students' engagement, motivation, and finally, fullest potential (Delos Reyes & Torio, 2020; Derakhshan, 2021; Dixon et al., 2017; Estep & Roberts, 2015), thus prospectively mitigating students' level of burnout. These results are also in congruence with other studies that have reported that teacher immediacy can decrease students' level of academic pressure and quantitative reasoning anxiety, aspects related to student academic burnout (Ballester, 2015; Kelly et al., 2015). Overall, all the results of the current study provided empirical support for the hypothesized model (see Figure 1).

While recognizing the value of these results, the current study is not without limitations. These results were obtained through data collected only from EFL university students. Moreover, it should be noted that although SEM takes into account the measurement errors for each component, and by doing so, it is a more accurate measure compared to traditional regression analyses, it does not account for the measurement error of the extraneous variables (in our case, stroke and immediacy) as a whole. Nevertheless, the model fit measures show that the results have high generalizability power, despite the possible unaccounted errors. Similarly, it should be acknowledged that the teacher immediacy scale used in this study was rather dated. However, we employed this scale based on this rationale that despite its early origin, it is still used as a valid and reliable measure by researchers in the general and language education domains (Ballester, 2015; Fallah, 2014; Finn & Schrod, 2012; Gholamrezaee & Ghanizadeh, 2018). To ensure its applicability to the context of the present study, we conducted a CFA with a large sample from the Iranian university EFL students' population, which after modifying the original 34-items immediacy scale to a 31-items one, demonstrated its good psychometric properties of validity and reliability in our context. In the present study, we only looked at measures of noted behavioral frequency rather than the perceptual change due to perceiving those behaviors. Moreover, we hypothesized, measured, and reported both verbal and non-verbal immediacy. It should be mentioned, however, that the verbal immediacy scale used in this study might measure perceived effective teaching, but not verbal immediacy.

6. Conclusion, implications and directions for future research

The conclusion based on the findings of this study is that effective EFL teacher communication behaviors that promote positive teacher-student interactions and good rapport have the potential to prevent the occurrence of EFL students' academic burnout. These results may therefore be beneficial to pre- and in-service

EFL instructors as well as EFL teacher educators. These stakeholders can identify teacher behavioral characteristics that contribute to increasing students' level of burnout and take appropriate actions to mitigate replicating such behaviors. This study indicates possible behaviors that may reduce the rate of burnout experienced by students. Decreased burnout is likely to have positive effects on students' academic outcomes. As Gourneau (2005, p. 1) states, "effective attitudes and actions employed by teachers can ultimately make positive differences in the lives of their students." Thus, practically, as two instances of positive teacher communication-relational behaviors, teacher immediacy and stroke can be explicitly taught to pre- or in-service EFL teachers as encouraging behaviors to foster good practices. These behaviors include building a good rapport, paying attention to students, making eye contact, promoting in-class discussion, praising student achievements, having a sense of humor, smiling, calling out names, and nodding. This would then facilitate effective discussions and quality interactions between the teacher and students inside and outside the lecture hall environment, thereby leading to students' experiencing less burnout.

To replicate the present study, future research could examine immediacy, stroke, and burnout variables at the secondary or school level. Alternatively, contexts such as the use of English to teach/learn academic subjects (English-medium Instruction, EMI) could also be investigated. Moreover, it might be hypothesized that a university teacher may lack the immediacy and/or stroke behaviors due to linguistic barriers; however, this assumption has yet to be explored. Furthermore, how these communication behaviors affect not only student burnout but also student 'success' in EMI would also be worth investigating (see Xie & Curle, 2020). Similarly, future studies can use more recent immediacy scales that have more robust validity and measure verbal immediacy more directly. Future investigations could also focus on samples chosen from other cultures and geopolitical contexts. Future research may also take a more qualitative approach by using narrative journals, interviews, and diary writing to elicit further in-depth reflections from students on their perceptions and experiences. Additionally, subsequent replication studies may focus on other potential teacher communication behaviors like instructor confirmation, classroom justice, humor, clarity, and credibility which may play a part in EFL students' level of burnout. Finally, the small correlations found between the teacher immediacy measures and the student response variables as well as the patterns of fit in the present study leave room for a mediating variable and are consistent with all of the recent literature on perceived immediacy (e.g., Kelly et al., 2015; Kelly & Gaytan, 2020; Violanti et al., 2018). Thus, we recommend that researchers consider the need for adding perceived immediacy as a mediator in the relationship of immediacy behaviors and student response variables in future studies.

Acknowledgments

This work was supported by Golestan University under Grant Number 981945. The authors wish to thank Golestan University for its support. They are also grateful for the insightful comments suggested by the Editor and the anonymous reviewers.

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APPENDIX A

Modified *Immediacy Behavior Scale*

Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Very often (4)
1.				Uses personal examples or talks about experiences she/he has had outside of class.
2.				Asks questions or encourages students to talk.
3.				Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan.
4.				Uses humor in class.
5.				Addresses students by name.
6.				Addresses me by name.
7.				Gets into conversations with individual students before or after class.
8.				Has initiated conversations with me before, after or outside of class.
9.				Refers to class as "my" class or what "I" am doing.
10.				Refers to class as "our" class or what "we" are doing.
11.				Provides feedback on my individual work through comments on papers, oral discussions, etc.
12.				Calls on students to answer questions even if they have not indicated that they want to talk.
13.				Asks how students feel about an assignment, due date or discussion topic.
14.				Invites students to telephone or meet with him/her outside of class if they have questions or want to discuss something.
15.				Asks questions that have specific, correct answers.
16.				Asks questions that solicit viewpoints or opinions.
17.				Praises students' work, actions or comments.
18.				Criticizes or points out faults in students' work, actions or comments.
19.				Will have discussions about things unrelated to class with individual students or with the class as a whole.
20.				Is addressed by his/her first name by the students.
21.				Gestures while talking to class.
22.				Uses monotone/dull voice when talking to class.
23.				Looks at class while talking.
24.				Smiles at the class as a whole, not just individual students.
25.				Has a very tense body position while talking to the class.
26.				Sits on a desk or in a chair while teaching.
27.				Looks at the board or notes while talking to the class.
28.				Stands behind podium or desk while teaching.
29.				Has a very relaxed body position while talking to the class.
30.				Smiles at individual students in the class.
31.				Uses a variety of vocal expressions while talking to the class.

APPENDIX B

Validated *MBI Student Survey*

Always (6) Almost always (5) Often (4) Sometimes (3) Rarely (2) Almost Never (1)
Never(0)

Exhaustion

1. I feel emotionally drained by my studies.
2. I feel used up at the end of a day at university.
3. I feel tired when I get up in the morning and I have to face another day at the university.
4. Studying or attending a class is really a strain for me.
5. I feel burned out from my studies.

Cynicism

1. I have become less interested in my studies since my enrollment at the university.
2. I have become less enthusiastic about my studies.
3. I have become more cynical about the potential usefulness of my studies.
4. I doubt the significance of my studies.

Professional efficacy

1. I can effectively solve the problems that arise in my studies.
2. I believe that I make an effective contribution to the classes that I attend.
3. In my opinion, I am a good student.
4. I feel stimulated when I achieve my study goals.
5. I have learned many interesting things during the course of my studies.
6. During class I feel confident that I am effective in getting things done.