

The Relationship between Dimensions of Student Engagement and Language Learning Motivation Among Iranian EFL Learners

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Abstract

Since second or foreign language learning is a long term endeavor and learners may lose their initial interest and enthusiasm, they need to be kept motivated. Student engagement has been recommended as one approach to sustaining such at risk learners at high levels of motivation. Accordingly, the purpose of this study was to investigate the relationship between the dimensions of student engagement and language learning motivation among Iranian EFL learners. To this end, 117 intermediate EFL learners at the Iran Language Institute (ILI), Gorgan adult male branch, Iran, having been selected as the participants of the study through convenience sampling, were given two questionnaires: Student Engagement Questionnaire (Hart, Stewart, & Jimerson, 2011; Reeve, 2013) and Language Learning Motivation Scale (Noels, Pelletier, Clément, & Vallerand, 2000). The quantitative data gathered through these questionnaires were analyzed by the software package of SPSS, version 24. The results of the correlation tests showed that there were significant relationships between language learning motivation and each dimension of student engagement, with the cognitive engagement having the highest correlation. Further, the results of multiple regression analyses indicated that cognitive engagement was the sole predictor of language learning motivation.

Keywords: Agentic engagement, behavioral engagement, cognitive engagement, emotional engagement, language learners, motivation

Introduction

Language learning is a long journey. Thus, the learner needs to be motivated enough to reach the destination. Along this adventure, the language learner's level of motivation may ebb and flow, due to the many distractions affecting his or her motivation (Dornyei, 2018). Some learners even end up being discouraged or disappointed as they may find the class boring or unfruitful, while others might remain motivated as they have their language or psychological needs satisfied. Since motivation seems to be a key factor in successful learning (Brown, 2007; Dornyei, 1998; Reid, 2007), few would question its contribution to success in mastering a foreign language (Dornyei, 2005). Hence, students need to be encouraged "to develop their own effective learning techniques so they can maximize their time efficiently and be rewarded for their effort"

(Reid, 2007, p. 5). Therefore, students' motivation needs more attention and improvement so that language learners can continue with their language learning.

On the other hand, observing and measuring students' motivation is a difficult task (Reeve, 2012). Reeve (2012) argued that this task is challenging owing to both big, dynamic classrooms, which are varied milieus, and the unobservable and subjective nature of the construct motivation itself. Put it simply, the teachers cannot tangibly realize the satisfaction of their students' fundamental psychological needs and passion for learning. Contrary to motivation, however, student engagement, as Reeve reasoned, seems to be a phenomenon that is tangible and can almost be observed. In other words, teachers can objectively observe whether or not a particular student is engaged in class activities like problem solving. Likewise, Skinner and Pitzer (2012) held a more constrained view that students' learning motivation can become observable via their engagement. Thus, it would seem conceivable and practical to measure an observable, obvious event like student engagement.

Regarding the distinction between student engagement and motivation, Appleton, Christenson, Kim, and Reschly (2006) argued that this distinction remains subject to debate. Nonetheless, motivation could be thought of with regard to the direction, intensity, and the qualities of observed behavior (Maehr & Meyer, 1997). In other words, motivation tries to answer the reason(s) behind any particular behavior (Appleton et al., 2006). However, student engagement may be viewed as energy in action, the link between an individual and activity (Russell, Ainley, & Frydenberg, cited in Appleton et al., 2006). Appleton et al. (2006) also illustrated this distinction with an example of reading tasks. They stated that motivational aspects can include perceptions of reading ability and value of reading in order to attain higher goals such as better scores or teachers' compliments. Engagement aspects may comprise the number of words which were read or the amount of the written text that was grasped with greater analysis of the content.

Student engagement is important for several reasons. First, language learning can be made possible through student engagement because it is hard to conceive language learning without substantial engagement (Reeve, 2012). Second, student engagement can predict students' achievement or academic progress (Ladd & Dinella, 2009). Third, as malleability is one salient characteristic of student engagement, it is influenced by such factors as teacher's support or social experiences (Birch & Ladd, 1997). Finally, student engagement provides teachers with immediate feedback on their efforts into motivating the students during instruction for assessment purposes (Reeve, 2012). Reeve (2012) also contended that engagement would be the best illuminating sign of learners' motivation. However, all the above-mentioned, important arguments, as Reeve reasoned, may not be fairly well known, indicating the need for more empirical studies to investigate them.

In sum, many language learners do not reach the high levels of language learning and seem to be demotivated, which leads to quitting without graduation from language schools (Menken, 2010; Parvaresh, 2008). Various causes can be seen as the possible reasons for their dropouts, among which lack of student engagement is the one playing a significant role (Finn, 1989; Fredricks, Blumenfeld, & Paris, 2004; Ladd & Dinella, 2009). That is to say, students give up studying English because they become less engaged; hence, they might be disengaged and lose their initial interest gradually, which can ultimately result in dropping out (Finn & Zimmer, 2012). Therefore, in order to increase students' motivational levels and, in turn, decrease the rate of their withdrawal from the language learning process, the link between student engagement and language learning motivation needs to be investigated. The present research study thus made attempts to fill this gap.

Furthermore, given the significance of motivation in language learning, on the one hand, and student engagement as the manifestation of this sort of motivation, on the other, it seems desirable that researching the link between these two constructs be of great benefits to the field. In addition, the relationship between student engagement and language learning motivation has not been much researched in the domain of language education thus far. Moreover, the findings could inform us of the role of student engagement and its dimensions in language education so that teachers and learners alike take advantage of the results. Therefore, the findings can contribute to our knowledge of student engagement and, in turn, help students to sustain their motivational levels. Accordingly, the objective of the current study was to bridge this lacuna by investigating the relationship between the dimensions of student engagement and language learning motivation in the EFL context of Iran.

Review of Literature

Student Engagement: Definition and Dimensions

There seems to be little consensus on a straightforward definition and effective measurement of engagement (Betts, 2012; Samuelsen, 2012; Sinatra, Heddy, & Lombardi, 2015). Based on the definition suggested by Newmann (1992), student engagement refers to the investment and effort which can be either cognitive or psychological, devoted to obtaining, comprehending, and grasping the awareness and abilities to be developed by educational perseverance. Dornyei (2018) believed that student engagement in general concerns involvement in school-based undertakings and academic tasks. More precisely, engagement can be explicated as the degree of a learner's energetic participation in an instructional task (Reeve, 2012), or an individual's keen involvement in an activity (Reeve, Jang, Carrell, Jeon, & Barch, 2004).

Regarding the dimensions of student engagement, there is also little agreement (Cirica & Jovanovic, 2016). For example, in their development and validation of an instrument to measure student engagement, Appleton et al. (2006) used merely the *cognitive* and *psychological* components to measure student engagement. In another study, (Hart, Stewart, & Jimerson, 2011) focused on the assessment of three sub-components of student engagement: *affective*, *cognitive*, and *behavioral*. When developing his own student engagement questionnaire, (Reeve, 2013) added another component – *agentic*. In fact, his focus was specifically on agentic engagement. He also replaced the term *affective* with *emotional*. Reschly and Christenson (2006) suggested a categorization for student engagement of four dimensions: *academic*, *behavioral*, *cognitive*, and *psychological*, although the psychological component had already been suggested to include cognitive and emotional dimensions (Fredricks et al., 2004).

The present study, however, used the definition and taxonomy proposed by Reeve (2012, 2013) for some reasons. First, his classification of the sub-components of student engagement contains the most recent construct–agentic engagement (Montenegro, 2017). Next, Reeve's (2012) categorization seems to be more comprehensive than the ones proposed earlier as it comprises four components. Therefore, Reeve's model of the student engagement construct provides a broader scope for researchers to work on. Although this vastness can be a pitfall in itself, it may offer new areas for further research in the future. Accordingly, the Student Engagement Questionnaire (SEQ) adapted from the ones developed by Reeve (2013) and (Hart et al., 2011) was employed to gauge the amount of student engagement in this study. The higher the scores, the more engaged the students. This questionnaire contains four components, each of which is to be defined below.

➤ *Behavioral engagement*: Fredricks et al. (2004) summarized the definition of behavioral engagement as entailing positive behavior, engagement in learning, and participation in

instructional tasks. It may also include doing the assigned tasks and observing the rules. In general, it can encompass participation in both academic and non-academic undertakings.

➤ *Emotional engagement*: It includes students' various reactions to instructors, peers, educators, and school (Mahatmya, Lohman, Matjasko, & Farb, 2012), influencing inclination toward doing the given tasks. Students who are engaged emotionally would experience emotional reactions such as interest, delight, or worry.

➤ *Cognitive engagement*: Drawing on the notion of investment, cognitive engagement integrates reflection and disposition to expend the effort which is required to understand complicated concepts and acquiring challenging abilities (Mahatmya et al., 2012). Fredricks et al. (2004, pp. 64-65) concluded that cognitive engagement would target "psychological investment in learning," and "cognition and strategic learning."

➤ *Agentic engagement*: Reeve and Tseng (2011) originally proposed the construct of agentic engagement. They were of the view that agentic engagement refers to the students' involvement in the current of the instruction that is presented to them. Moreover, Reeve (2012) maintained that this contribution is deliberate and initiated by the student. According to Reeve (2013), agentic engagement is similar to the other three dimensions of engagement, as it is also a constructive student-initiated pathway to academic progress; however, it is meaningfully different as well.

Motivation in Language Learning

Motivation to learn language may be defined as the degree of effort a person expends to learn language because the person expresses a wish for it and is satisfied in doing so (Gardner, 1985). Dornyei (2005) argued that motivation affords the principal push to start language learning and later the reason for continuing the extended and frequently boring process of learning. Dornyei was of the opinion that motivation has contribution to the entire factors which are associated with learning a second language.

Ushioda (2008) maintained that motivation is concerned with an individual's motive to take particular decisions, to involve in the activity, and to persevere in pursuing it. Motivation regulates the magnitude of vigorous, individual participation in second language learning. Research has shown that motivation directly has effects on students' use of second language learning strategies, their interaction with native speakers, and their perseverance and maintenance of second language skills even after they are through with language study (Oxford & Shearin, 1994). On the contrary, without adequate motivation, individuals who have even the most outstanding capabilities cannot attain long-run objectives; importantly, the most appropriate educational programs and worthy instruction may not be sufficient on their own to safeguard students' accomplishment (Dornyei & Csizér, 1998).

The Theoretical Framework

The current study was based on self-determination theory (SDT) for several reasons. First, SDT encompasses both constructs of the study – language learning motivation and student engagement. Second, engagement can be viewed with regard to the SDT, presuming "students' active involvement in and reflection on their own learning" (Nichols & Dawson, 2012, p. 471). Third, the instruments in the present study have been developed based on SDT. Next, SDT may be more comprehensive than Gardner's (1985) theory of motivation since Gardner does not seem to include all possible constructs of motivation such as intrinsic motivation, which is not taken into account in Gardner's theory. As such, SDT can provide a broader scope for interested researchers to work on motivation and student engagement. Finally, as Reeve (2012, pp. 151-152) explicitly stated, SDT can provide the overarching theoretical framework to guide an empirical

study of both motivation and engagement.

Empirical Research on Engagement and Motivation

Reeve and Lee (2014) investigated the effect of students' classroom engagement on classroom motivation on Korean high school students using a three-wave longitudinal research design. Their results revealed that there is a reciprocal connection between engagement and motivation, and engagement was predictive of motivation. Xiong et al. (2015) examined the associations among student engagement, motivation, and retention with the use of structural equation modeling. They found that motivation could predict student engagement, with retention being predicted by student engagement. Oga-Baldwin and Nakata (2017) investigated the relationship between engagement and motivation in Japanese EFL education. Their results demonstrated that student engagement strongly predicted intrinsic motivation and negatively predicted extrinsic motivation. These authors finally concluded that engaging students in their schoolwork had significant effects on their motivational levels, and helped the students to develop an interest in English and appreciate the value of the language they are learning.

Up to date, comparatively few studies have examined student engagement in the domain of language learning. For example, Akbari, Naderi, Simons, and Pilot (2016) studied the effect of the online social network Facebook on the students' motivation, engagement and language learning. Their findings showed that engagement had significant effects on the students' achievements in the experimental group, but no correlation was found between engagement and motivation. In a recent research study, Ramshe, Ghazanfari, and Ghonsooly (2019) investigated the role of personal best aims in behavioral, cognitive, and emotional engagement of learners in an academic Iranian EFL context. The findings revealed that personal best goals explicated a considerable degree of inconsistency in all three facets of engagement.

To the best of the researchers' knowledge, there seems not to exist much research having investigated the association between the dimensions of student engagement and motivation to learn language in the realm of language education. Further, the study of student engagement appears to be still in its infancy in language learning research. Therefore, investigating these constructs empirically and more closely can inform our understanding about the application of student engagement in language education. Consequently, it is felt that more empirical studies are required to enrich our understanding of student engagement and its role in language learning motivation in EFL contexts. The present study thus tries to fill this gap and address the issue through these research questions:

1. Is there any statistically significant association between Iranian EFL students' behavioral engagement and language learning motivation?
2. Is there any statistically significant association between Iranian EFL students' emotional engagement and language learning motivation?
3. Is there any statistically significant association between Iranian EFL students' cognitive engagement and language learning motivation?
4. Is there any statistically significant association between Iranian EFL students' agentic engagement and language learning motivation?
5. Which dimension of student engagement is the best predictor of language learning motivation among Iranian EFL students?

Methodology

Participants

The present research study was conducted on 117 language learners, selected through the

convenience sampling method and their availability was regarded as the criterion for their selection. They were chosen from 136 male language learners who studied EFL at the Iran Language Institute (ILI), adults' branch, Gorgan, Iran. Their classes met twice a week in the evening. They were all native Persian speakers taking EFL courses willingly. The researchers informed the students that their participation was not compulsory and that their responses would not be revealed publically. In essence, the language learners participated in the study of their own volition. Table 1 presents participants' distribution by age and years of language learning.

Table 1. *Distribution of Participants by Age and Years of Language Learning*

| Age | Years of Language Learning | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|----------------------------|-----------|---------|---------------|--------------------|
| 15 and under | 0-3 | 1 | 4.5 | 4.5 | 4.5 |
| | 4-6 | 7 | 31.8 | 31.8 | 36.4 |
| | 7 and above | 14 | 63.6 | 63.6 | 100.0 |
| | Total | 22 | 100.0 | 100.0 | |
| 16-18 | 0-3 | 20 | 21.5 | 21.5 | 21.5 |
| | 4-6 | 50 | 53.8 | 53.8 | 75.3 |
| | 7 and above | 23 | 24.7 | 24.7 | 100.0 |
| | Total | 93 | 100.0 | 100.0 | |
| 19 and above | 0-3 | 1 | 50.0 | 50.0 | 50.0 |
| | 7 and above | 1 | 50.0 | 50.0 | 100.0 |
| | Total | 2 | 100.0 | 100.0 | |

Instrumentation

Two questionnaires and a language proficiency test were used to collect data on student engagement and language learning motivation. A detailed description of these instruments is presented below.

Student Engagement Questionnaire (SEQ). The instrument for collecting quantitative data on student engagement was a scale adapted from two questionnaires. One was the Reeve (2013) questionnaire, the focus of which was specifically on *agentic* engagement. The other was the Student Engagement in Schools Questionnaire (SESQ), a modified version of Likert-type, self-report questionnaire, developed by Hart et al. (2011), focusing on the assessment of three components of student engagement: *affective*, *behavioral*, and *cognitive*. The finalized instrument was a 14-item scale comprising four constructs: *emotional engagement*, *behavioral engagement*, *cognitive engagement*, and *agentic engagement*. Each item was calculated on a 5-point Likert-type scale from 1: *strongly disagree* to 5: *strongly agree*.

Language Learning Motivation Scale (LLMS). A modified form of the scale, prepared by Noels, Pelletier, Clément, and Vallerand (2000) was used to examine Iranian EFL learners' reasons for language learning, grounded in the orientations of motivation delineated in self-determination theory (SDT) (Deci & Ryan, 1985, 2000). This adapted scale consisted of 10 items: *intrinsic motivation*, *extrinsic motivation*, and *amotivation*. They required the students to grade the reason which was applicable to them. Each item was calculated on a 5-point Likert-type scale

from 1: *It does not apply to me at all* to 5: *It applies to me completely*. The validity of these two questionnaires was confirmed by three experts in the field. The reliability indices of the SEQ and LLMS were estimated as .90 and .69, respectively, in the pilot study.

Oxford Quick Placement Test (OQPT). In order to homogenize the participants and select those language learners of the intermediate level, the paper-based version of the Oxford Quick Placement Test (OQPT) was used, although the students were already at this level of language proficiency in the selected institute. The OQPT consists of 60 questions in a multiple-choice format. Those students whose scores fell between 30 and 47 were regarded as intermediate-level students, as such the legitimate participants in this study.

Procedure

The present study was performed at the ILI, adult male branch, Gorgan, Iran, in the summer term of 2019. The written permission for performing the present research at this institute was obtained from the provincial director of the ILI. Having taken the OQPT, 117 language learners, who scored between 30 and 47, as intermediate-level language learners, were selected from 136 male EFL learners and given the questionnaires. It should be mentioned that although the students' level of language proficiency was high enough to make out the items of the questionnaires (intermediate level), the first researcher himself was present in the classroom during the administration of the questionnaires for any necessary clarification as well as reminding them of not missing any single one of the questionnaire items.

Study Design and Data Analysis

The design of the present study was a correlational one as the mere relationships between the main variables were investigated with no intervention on the part of the researchers. In order to perform the statistical analysis, SPSS, version 24, was used. Pearson product-moment correlation test was employed to specify if the relationships between the dimensions of student engagement and language learning motivation were statistically significant. Because statistical significance may show results that are practically of little relevance, effect sizes, i.e. R^2 for correlational analysis (Creswell, 2012), were used to determine the practical significance of the relationship (Cohen, 1988). Multiple regression analyses were also carried out to predict language learning motivation by the dimensions of student engagement.

Results

Table 3 depicts the descriptive results for the two questionnaires. No outliers or other abnormalities were found.

Table 2. *Descriptive Statistics for SEQ and LLMS*

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---------|-----|---------|---------|---------|----------------|
| SEQ | 117 | 34.00 | 70.00 | 53.7094 | 7.41975 |
| LLMS | 117 | 22.00 | 47.00 | 34.3162 | 4.96826 |
| Valid N | 117 | | | | |

Note. SEQ= Student Engagement Questionnaire; LLMS= Language Learning Motivation Scale.

In order to make sure that the data were distributed normally, Kolmogorov-Smirnov and Shapiro-Wilk tests were run. Table 3 displays the results of these tests.

Table 3. Normality Tests

| | Kolmogorov-Smirnov | | | Shapiro-Wilk | | |
|------|--------------------|-----|-------|--------------|-----|------|
| | Statistic | Df | Sig. | Statistic | Df | Sig. |
| SEQ | .059 | 117 | .200* | .987 | 117 | .345 |
| LLMS | .070 | 117 | .200* | .987 | 117 | .341 |

As can be seen in Table 3, the Sig values of Kolmogorov-Smirnov and Shapiro-Wilk tests for both SEQ and LLMS are .20 and .34, respectively. Since these values are greater than .05, it can be concluded that the distribution of data is normal; therefore, parametric tests may be employed.

Then to answer research questions 1 through 4, Pearson correlation tests were employed. Table 4 displays the results of these tests.

Table 4. Correlations Between Dimensions of Student Engagement and Language Learning Motivation

| | | LLM | EMO | BEH | COG | AGN |
|-----|---------------------|--------|--------|--------|--------|--------|
| LLM | Pearson Correlation | 1 | .338** | .352** | .429** | .228* |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .013 |
| | N | 117 | 117 | 117 | 117 | 117 |
| EMO | Pearson Correlation | .338** | 1 | .501** | .338** | .240** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .009 |
| | N | 117 | 117 | 117 | 117 | 117 |
| BEH | Pearson Correlation | .352** | .501** | 1 | .539** | .423** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 |
| | N | 117 | 117 | 117 | 117 | 117 |
| COG | Pearson Correlation | .429** | .338** | .539** | 1 | .322** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 |
| | N | 117 | 117 | 117 | 117 | 117 |
| AGN | Pearson Correlation | .228* | .240** | .423** | .322** | 1 |
| | Sig. (2-tailed) | .013 | .009 | .000 | .000 | |
| | N | 117 | 117 | 117 | 117 | 117 |

Note. LLM= Language Learning Motivation; EMO= Emotional Engagement; BEH= Behavioral Engagement; COG= Cognitive Engagement; AGN= Agentic Engagement

As it is illustrated in Table 4, language learning motivation was significantly related with emotional engagement ($r=.338$, $n=117$, $p=.000$), behavioral engagement ($r=.352$, $n=117$, $p=.000$), cognitive engagement ($r=.429$, $n=117$, $p=.000$), and agentic engagement ($r=.228$, $n=117$, $p=.013$). Accordingly, this conclusion may be drawn that there were statistically significant associations between dimensions of student engagement and language learning motivation among the language learners of this study.

In order to determine how much of the variability in the dependent variable (language learning motivation) could be accounted for by the independent variables (the four dimensions of

student engagement), regression analysis was employed. In other words, this multiple linear regression was used to find out which dimension of student engagement, i.e. emotional engagement, behavioral engagement, cognitive engagement, or agentic engagement, was the best predictor of language learning motivation. The results of running the multiple linear regression tests are shown in Table 5.

Table 5. *Multiple Regression Analyses Predicting Language Learning Motivation from Dimensions of Student Engagement*

| Model | Unstandardized Coefficients | | Standardized Coefficients | | T | Sig. | F | R | R ² | ΔR^2 |
|------------|-----------------------------|------------|---------------------------|--|-------|------|-------|------|----------------|--------------|
| | B | Std. Error | Beta | | | | | | | |
| (Constant) | 16.250 | 3.235 | | | 5.023 | .000 | 8.488 | .482 | .233 | .205 |
| EMO | .698 | .363 | .185 | | 1.925 | .057 | | | | |
| BEH | .109 | .178 | .069 | | .614 | .540 | | | | |
| COG | .572 | .183 | .311 | | 3.133 | .002 | | | | |
| AGN | .101 | .170 | .054 | | .592 | .555 | | | | |

Note. LLM=Language Learning Motivation; EMO=Emotional Engagement; BEH=Behavioral Engagement; COG=Cognitive Engagement; AGN=Agentic Engagement.

It is worth noting that that the assumptions for multiple regression were checked. And it was determined that the assumptions were met, so the data was appropriate for multiple regression.

As Table 5 indicates, a statistically significant model was created by the regression analysis ($F(4, 112) = 8.488, p = .000, AR^2 = 0.20$), accounting for 23% of the total variance. More specifically, it was found that cognitive engagement ($\beta = 0.31; t = 3.13; p = .002$) was a significant predictor of language learning motivation. However, emotional engagement ($\beta = 0.18; t = 1.92; p = .057$), behavioral engagement ($\beta = 0.06; t = .614; p = .540$), and agentic engagement ($\beta = 0.054; t = .592; p = .555$) were not significant predictors of language learning motivation.

Discussion

The primary objective of the present study was to explore the relationships between emotional, behavioral, cognitive, and agentic dimensions of student engagement and language learning motivation. As an ancillary objective, the study tried to determine which dimension could be a better predictor of language learning motivation. The results of correlation tests showed that there were positive significant relationships between language learning motivation and the four subcomponents or dimensions. Among these dimensions, cognitive engagement ($r=.42$) had the strongest correlation with language learning motivation, followed by behavioral engagement ($r=.35$), emotional engagement ($r=.33$), and agentic engagement ($r=.22$). And the regression analysis resulted in the realization that cognitive engagement was the sole predictor of language learning motivation.

The findings of the correlation analysis were in line with those of quite a few research studies. Oga-Baldwin and Nakata (2017) concluded that engaging students in their schoolwork had significant effects on their motivational levels, and helped the students to develop an interest in English and appreciate its value. Reeve and Lee (2014) found that motivation and engagement

are reciprocally related. That is to say, both student engagement and motivation are important because either facilitates the other. Likewise, Ben-Eliyahu, Moore, Dorph, and Schunn (2018) reported reciprocal relations between motivation and engagement. LeMay (2017) findings demonstrated correlations between engagement and three of the four components of motivation for males. As for females, his analyses revealed correlations among engagement and all components of motivation. Nayir (2017) research revealed that motivation levels were correlated with class engagement. Finally, the outcomes of the study done by Xiong et al. (2015) showed that motivation could be used to predict student engagement.

However, the findings were in contrast to those of Akbari et al. (2016), who found no correlation between engagement and motivation among doctoral students. Also, Phillips (2016) reported no statistically significant link between teachers' motivation and engagement.

On the other hand, the results of the regression analysis supported those found by Ben-Eliyahu et al. (2018), who reported that overall engagement predicted all types of motivation. On the contrary, Sedaghat, Abedin, Hejazi, and Hassanabadi (2011) demonstrated that motivational factors predicted cognitive engagement.

In correlation analysis, it was revealed that cognitive engagement had the highest correlation with language learning motivation. Moreover, in regression analysis, cognitive engagement was also shown to be the only predictor of language learning motivation. This close relationship between cognitive engagement and motivation has already been established by Blumenfeld, Kempler, and Krajcik (2006), when they suggested that motivation can result in success in learning if cognitive engagement is improved. This finding may be attributed to the belief that students use strategic thinking to learn by using complicated learning strategies in lieu of shallow ones, for instance, elaboration instead of rote learning (Walker, Greene, & Mansell, 2006). Furthermore, deep stages of cognitive engagement, according to Blumenfeld et al. (2006), involve employing learning strategies such as organization and elaboration while the learners are trying to associate innovative concepts to the previous ones. Simply put, motivation seems to pave the way for cognitive engagement as it enhances students' understanding and skill capabilities when they are engaged in constructing knowledge and employ deeper learning strategies. This constructivist-based learning may in turn enhance cognitive engagement.

Another possible explanation for this close association between cognitive engagement and language learning motivation in this study may be the fact that these two constructs are very similar (Reschly & Christenson, 2012). In this regard, it is evidenced that cognitive engagement has been defined by using the traditional notions of motivational orientations such as self-regulation, personal investment, intrinsic/extrinsic motivation, striving for mastery, and goal-setting (Fredricks et al., 2004; Reschly & Christenson, 2012; Wolters & Taylor, 2012). In the same way, Blumenfeld et al. (2006) indicated that cognitive engagement is preceded and predicted by motivation. In the educational setting where this study was conducted, EFL learners were to be active in class so that they could meet the teachers' demands to pass the course. As cognitive engagement consists of students' investment of effort in language learning, they might have been experienced enough to make the most of that effort. Therefore, this may explain the strong bond between motivation and cognitive engagement.

Therefore, this link between cognitive engagement and language learning motivation can have implications for educators. Teachers, for example, may need to employ those activities that tax students' intellectual capacities rather than the ones which require little mental effort. One such activity is group work that enhances students' cognitive engagement (Blumenfeld et al., 2006). By the same token, materials developers can also include more sophisticated exercises in the textbooks so that students can be engaged more cognitively. Problem-solving tasks, for

example, can be incorporated in the materials so that students could exert substantial mental effort. Phillips (2016) contended that developing problem solving and critical thinking skills can lead to improvement of motivation. Therefore, as a result of using such cognitively designed activities and exercises, students are expected to become more interested in language learning since cognitive engagement comprises learners' inclination to devote and expend effort in mastering the language (Blumenfeld et al., 2006).

As the results of the present study imply, teachers' efforts need to be directed to cognitively engage language learners by employing features such as meaningful tasks, collaboration, and technology to promote language learning motivation (Blumenfeld et al., 2006). Given learning tasks, Meece, Blumenfeld, and Hoyle (1988) suggested that such tasks can result in more active cognitive engagement. Meece et al. (1988, p. 514) also asserted that students' goal orientations have influence on their motivation, "depending on their individual needs and competencies or on the demands of the situation." When students' motivation and interest are sustained, steps are to be taken to translate them into high quality cognitive engagement (Blumenfeld et al., 2006).

High cognitive engagement is characterized by self-efficacy attitudes and self-regulatory skills (Mahatmya et al., 2012). Moreover, according to Mahatmya et al. (2012, p. 56) cognitive engagement can feature some task aspects like attentiveness, acquisition, and questioning. This view of cognitive engagement may be in line with a cognitive approach to task-based language teaching (TBLT) and learning (Skehan, 2003), in which much emphasis is put on psychological processes. Following this line of thought, TBLT may be a viable way to cognitively engage students. Littlejohn (2015, p. 40) was of the view that tasks which require more cognitive engagement lead to "an increase in learner motivation, deeper and longer lasting learning, and a role for language learning as a part of education." The more students are involved in doing tasks, the more mental progress the students will make; therefore, it can be inferred that providing opportunities for the students to work on tasks in small groups seems to be of paramount importance. As a result, when students develop cognitively, they become more interested in language learning, leading to the increase in intrinsic motivation (Mahatmya et al., 2012).

Conclusion

This study investigated the association between dimensions of student engagement and language learning motivation among Iranian EFL learners. The findings of the study indicated that each dimension of student engagement had a significant relationship with language learning motivation, that cognitive engagement had the strongest correlation with language learning motivation, and that cognitive engagement was a significant predictor of language learning motivation. In conclusion, as cognitive engagement assumes a significant role in stimulating and promoting language learning motivation, future studies on student engagement can thus concentrate on exploring innovative ways of developing students' cognitive skills. By promoting cognitive skills or strategies, language learning motivation may also be encouraged. One such way to promote cognitive engagement, according to Lee (2014), is to explore features affecting the learning environment. Another could be research on self-regulated learning strategies as they are considered to be measures of cognitive engagement (Meece et al., 1988; Reeve & Tseng, 2011). In summary, the more we conduct research on student engagement in general and cognitive engagement in particular, the deeper understanding we will gain about the ways of enhancing language learners' motivation.

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