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Relationship between classroom environment, teacher behavior, cognitive and emotional engagement, and state motivation*

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Abstract

This study investigated the relationship between classroom environment, teacher behavior, and EFL (English as a foreign language) learners engagement and state motivation. To do so, 110 intermediate Iranian EFL learners with an average age of 18.37 were asked to complete What is Happening Inside the Classroom scale (WIHIC), Questionnaire for Teacher Interaction (QTI), Student Engagement Instrument (SEI), and Student State Motivation scale (SMS). The results of statistical analysis showed that there was a moderate relationship between all aspects of classroom environment (student cohesiveness, teacher support, equity, involvement, cooperation, and task orientation) and learners engagement (emotional and cognitive engagement). Moreover, there was a relationship between some aspects of classroom environment (student cohesiveness, task orientation, cooperation, and involvement) and state motivation. However, there was no relationship between teacher behavior, learners engagement, and state motivation. Implications are discussed and avenues for future research are outlined.

Keywords: Teacher interpersonal behavior; classroom environment; engagement; state motivation;

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Introduction

Research has shown that student affect towards the class and its materials and their engagement with its tasks and activities play a crucial role in language learning and achievement (Amiryousefi, 2019). Accordingly, the question of why some learners engage with the learning tasks and activities and what factors can influence their motivation for learning and engagement has occupied researchers for many years (Eddy-U, 2014). Research has shown that classroom environment can play a predominant role in motivating and engaging students. Classroom environment refers to the atmosphere where learning takes place (Dorman, Fisher, & Waldrip, 2006) and includes both physical (size of classroom, temperature) and psychological aspects (relationship between students, teachers). Another factor that has recently attracted researchers attention is teacher interpersonal behavior (den Brok, Levy, Brekelmans, & Wubbels, 2005; Misbah, Gulikers, Maulana, & Mulder, 2015). den Brok, Levy, et al. (2005) define teacher interpersonal behavior as the teacher-students relationship, which contains elements such as leadership and understanding behavior. Research shows that teacher interpersonal behavior can play an important role in students engagement, motivation, academic achievement, and behavior (den Brok, Levy, et al., 2005; Dorman et al., 2006; Misbah et al., 2015).

While the concepts of teacher interpersonal behavior and classroom environment and their influence on variables such as students engagement and sate motivation have been studied in science, biology, mathematics, and physics classroom environments, these concepts are rather underresearched in the domain of language learning and teaching. Additionally, Wei, den Brok, & Zhou (2009) argue that there are differences in variables such as teacher interpersonal behavior in different contexts and educational settings. Hence, this study was an effort to shed further light on the nature of these concepts by examining their interrelationship in an EFL (English as a foreign language) setting.

Literature review

Classroom environment

Classroom environment is an important factor in learning, which plays a determining role in students cognitive and affective outcomes and learning (Dorman et al., 2006). In fact, classroom environment has the potential either to prepare the ground for students development, creativity, and growth or to stifle them. An optimal classroom environment is one where students have a sense of belonging, can trust their teacher and/or peers, and are encouraged to be risk taking and to tackle learning challenges (Young, 2014). Classroom environment includes both physical and psychosocial aspects (Johnson & McClure, 2004). Physical aspect of the classroom includes factors such as the school desks, walls, lights, and boards. Psychosocial classroom environment, on the other hand, refers to the interaction between learners and the teacher. According to Fraser (1998, 1986), the psychosocial aspect of the classroom consists of: (1) students cohesiveness (the degree to which students support each other); (2) involvement (the degree to which students participate in classroom discussion and do the activities, etc.); (3) task orientation (the extent to which a planned activity is important to be completed); (4) equity (the extent to which the teacher treats students equally); (5) teacher support (the extent to which the teacher helps and trusts students); (6) cooperation (the extent to which students cooperate with each other); and (7) investigation (the extent to which students investigate).

Research shows that classroom environment can influence students achievement (e.g., Fraser & Goh, 1998; Zandvliet & Fraser, 2004), motivation, and engagement (e.g., Chua, Wong, & Chen, 2009; Wei, 2011; Velayutham & Aldrige, 2013; Blanco, 2015; Shernoff, Tonks, & Anderson, 2014; Yang et al., 2017). To the best of authors knowledge, the issue of classroom environment in the sense examined by the mentioned studies has been neglected by researchers in the domain of language learning and teaching. Most of the studies in this domain have, however, centered around issues such as the role of

teachers methodological considerations in students task performance (Nicolson & Adams, 2010).

Teacher interpersonal behavior

Interpersonal interaction is an indispensable part of all learning environments, especially language learning environments due to their interactive nature. Scholars argue that teacher interpersonal behavior, as an important part of interpersonal interactions in educational contexts, has the potential to excite, energize, and emotionally engage students and influence their academic achievements (Brekelmans Wubbels, & den Brok, 2002; Mazer, 2013). Moreover, Dörnyei (1994) argued that teacher behavior can affect learners motivation in learning English language. Wubbels, Créton, and Hooymayers (1985) as cited in den Brok, Fisher, and Scott (2005) defined a model for teacher-student relationship (see Figure 1).

This model, which is called the teacher interpersonal behavior, assumes two main dimensions for teacher behavior, i.e. Influence (teacher dominance vs. submissiveness) and Proximity (teacher cooperation vs opposition). These two dimensions are further divided into eight sub-dimensions: leadership (lead students, organize classroom), helpful/friendly (help students, show interest in classroom, being able to tell jokes), understanding behavior (listen to students), student freedom (give students opportunity and freedom to do independent activities), uncertain behavior (avoid attracting attention to himself/herself), dissatisfied behavior (show dissatisfaction in classroom), admonishing behavior (get angry, punish learners in classroom) and strictness (be strict about learners).

As shown in Figure 1, terms such as DC, CD, DO, and CS are used to label different sections of the model according to their position in the coordinate system (much like the directions in a compass) (den Brok et al., 2005, p. 767). For instance, a teacher having DC behavior is the one who is characterized by Dominance and Cooperation, but s/he is more dominant and less cooperative.

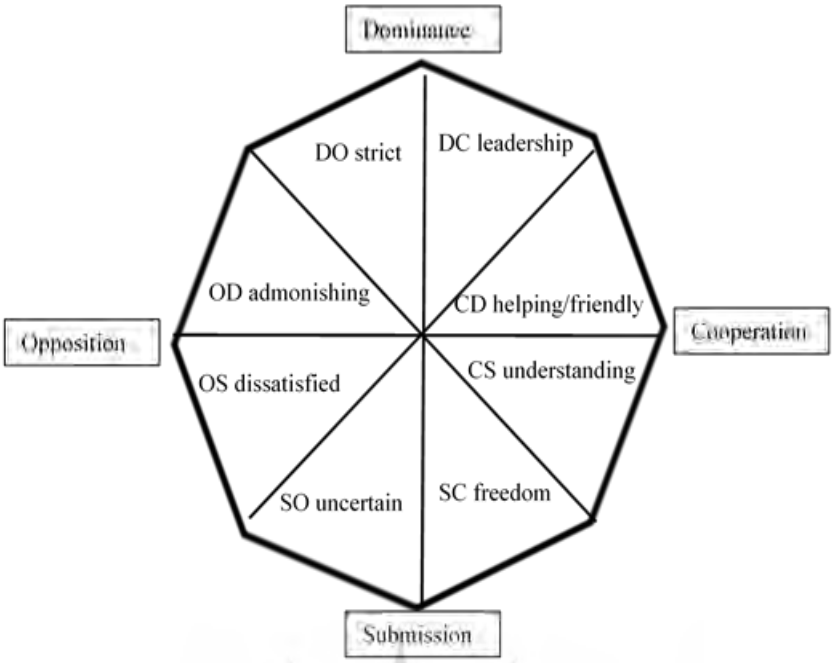

Figure 1.
The model for interpersonal teacher behavior (den Brok et al., 2005, P. 768)

Research on teacher interpersonal behavior shows that teacher behavior can influence students achievement (e.g., den Brok, Brekelmans, & Wubbels, 2004; Nouri, 2015), motivation (e.g., den Brok et al., 2004; Maulana, Opdenakker, den Brok, & Bosker, 2012), and engagement (e.g., Skinner, Furrer, Marchand, & Kindermann, 2008; Kraft & Dougherty, 2013; van Uden, Ritzen, & Pieters, 2014) and teaching effectiveness (Rahimi & Karami, 2015). There are also a few studies in the domain of English teaching and learning on teacher interpersonal behavior (Wei et al., 2009; Wei & Onsawad, 2007). Wei et al. (2009), for example, investigated the relationship between teacher interpersonal behavior and EFL (English as a foreign language) students fluency. 160 students were asked to complete Questionnaire on Teacher Interaction. The results revealed that teacher uncertainty was negatively correlated with the respondents

achievement. Moreover, the level of teacher cooperation with students was the only major predictor for the respondents achievement. Wei and Onsawad (2007), on the other hand, studied the relationship between English teachers actual and ideal interpersonal behavior and students attitudes toward learning English and English achievement. 291 students were asked to complete the questionnaires. The results revealed that teachers strictness was significantly correlated to student attitudes. However, how teacher interpersonal behavior can influence language learners individual difference variables such as state motivation and engagement has received little attention.

Student engagement

Reeve, Jang, Carrell, Jeon, and Barch (2004) argue that learners engagement is one swillingness to participate in activities or tasks. They believe that in educational settings engagement is especially important because it can determine students learning and development and is an indicator of their motivation. Scholars denote that student engagement has three major dimensions, i.e. cognitive engagement, emotional engagement, and behavioral engagement (Fredricks, Blumenfeld, & Paris, 2004; Newmann, Wehlage, & Lamborn, 1992). Cognitive engagement is defined as student s psychological investment in and effort directed toward learning, understanding, mastering the knowledge, skills or crafts that the academic work is intended to promote (Newmann et al., 1992, p. 12). Emotional engagement, on the other hand, encompasses positive and negative reactions to teachers, classmates, academics, and school and is presumed to create ties to an institution and influence willingness to do the work (Fredricks et al. 2004, p. 60). Another aspect of engagement is behavioral engagement. Behavioral engagement entails positive conduct, such as following the rules and adhering to classroom norms, as well as the absence of disruptive behaviors such as skipping school and getting in trouble (Fredricks et al. 2004, p.62).

Research shows that there is a relationship between students engagement and their academic achievement (e.g., Gunuc, 2014; Handelsman, Briggs, Sullivan, & Towler, 2005; Wonglorsaichon,

Wongwanich, & Wiratchai 2014; Lee, 2014). For example, Lee (2014), based on the results of his study, concluded that the emotional and behavioral developments of students are as important as their intellectual development (p. 183). He further argues that students engagement can influence students learning and academic performance. As the only study in the domain of language learning and teaching to the authors best of knowledge, Phung (2017) define engagement as the extent to which language learners try to achieve the goals of language learning tasks, connect with the content of the tasks, and use the resources available to them to complete the tasks. However, the notion of engagement in the field of language learning and teaching has been discussed with regard to task engagement and the factors such as task difficulty and content familiarity that can influence learners engagement with the tasks (Mozgalina, 2015; Philp & Duchesne, 2016; Phung, 2017). How other variables such as classroom environment and teacher behavior can influence language learners general engagement has received little attention.

State Motivation

Lin, Durbin, and Rancer (2017) argue that students motivation can be classified into two types, namely motivation which is caused and influenced by internal factors such as students predispositions, and motivation which is caused and influenced by external factors such as teacher behavior and classroom environment. The former is called trait motivation and the latter is called state motivation. Myers et al. (2014) define state motivation as students attempts to obtain academic knowledge or skills from classroom activities (p. 17) and argue that state motivation is influenced by teacher behaviors. Similarly, scholars (Mahmud & Yaacob, 2007; Webster, Mۥndril , & Weaver, 2011) argue that state motivation is not an enduring variable and can be influenced by factors such as teacher behavior. Moreover, state motivation can influence students attention to classroom events and classroom instruction, perception of teacher communication, and affective learning.

Previous research shows that there is a relationship between state motivation and students cognitive learning, trait motivation, and perception of teacher immediacy (Webster et al., 2011), perceived instructor clarity, humor, confirmation, and caring (Myers et al., 2014), and classroom communication climate (Lin et al., 2017). Collectively, based on the results of these studies, it can be argued that state motivation can have a determining influence on students engagement with class tasks and activities, and factors such as teacher behavior and classroom environment can have influential effects on student sate motivation. As students engagement with the learning tasks is a crucial element in learning a new language (Amiryousefi, 2019), sate motivation can also be considered as an important factor in the domain of language learning and teaching. However, to the authors best of knowledge, this issue has received no attention by the scholars in this domain.

Research questions

This study was guided by the following questions:

1. What is the relationship between classroom environment and EFL learners engagement with language learning tasks and activities?
2. What is the relationship between classroom environment and EFL learners state motivation?
3. What is the relationship between teacher behavior and EFL learners engagement with language learning tasks and activities?
4. What is the relationship between teacher behavior and EFL learners state motivation?

Methodology

Participants

The participants of this study included 110 (97 female, 13 male) Iranian EFL learners from three language learning institutes in Isfahan, with an average age of 18.37 years (ranging from 14 to 32 years). About 34.5% were senior high school students, 26.4% were junior high school students, 13.6% were university students, and the remaining (about 25%) were either housewives or employees. The

participants were at intermediate level of English proficiency based on the institutes placement test. The native language for all of them was Persian. The data were collected in summer and fall 2017 semesters. Participation in this study was voluntary.

Instrumentation

To collect the required data, What Is Happening Inside the Classroom (WIHIC) (Fraser, McRobbie, & Fisher, 1996); Questionnaire for Teacher Interaction (QTI) (Wubbels & Levy, 1991); Student Engagement Instrument (SEI) (Appleton, Christenson, Kim, & Reschly, 2006); and State Motivation Scale (SMS) (Christophel, 1990) were used. All of the questionnaires were translated into Persian (the participants mother tongue) to make them easier for intermediate learners to understand. To ensure the validity of the translated version of the questionnaires, two experts in the field were asked to check the translated versions. The instruments are described in the following sections.

What Is Happening Inside the Classroom? (WIHIC)

WIHIC scale (Fraser et al., 1996) was used to assess psychosocial aspects of classroom environment. This instrument contains 56 items that are classified under seven categories for measuring: (1) students cohesiveness (: .87, the extent to which students support each other); (2) involvement (: .91, the extent to which students participate in discussion, additional activities); (3) task orientation (: .93, the extent to which a planned activity is important to be completed); (4) equity (: .95, the extent to which the teacher treats students equally); (5) teacher support (: .94, the extent to which the teacher helps and trusts students); (6) cooperation (: .93, the extent to which the student cooperates with other learners); (7) investigation (: .94, the extent to which students investigate). The researchers, however, omitted the investigation section of this instrument because this part was not applicable to EFL (English as a foreign language) settings. The researchers also achieved a high level of internal consistency with = .93 for the six categories of the questionnaire. The participants

rated the items based on the anchor points of almost never = 1, seldom = 2, sometimes = 3, often = 4, and almost always = 5.

Questionnaire for teacher interaction (QTI)

QTI (Wubbels & Levy, 1991) was used to measure teacher-student relationship in terms of Influence (teacher dominance versus submissiveness) and Proximity (teacher cooperation versus opposition). This instrument contains 48 items which are classified under eight categories for measuring teacher :s(1) leadership (: .94, the extent to which the teacher is a good leader); (2) helpful/friendly behavior (: .97, the extent to which the teacher is someone students can depend on); (3) understanding behavior (: .98, the extent to which the teacher listens to students); (4) student freedom (: .91, the extent to which the teacher gives freedom to students); (5) uncertain behavior (: .93, the extent to which the teacher seems uncertain); (6) dissatisfied behavior (: .92, the extent to which the teacher seems suspicious); (7) admonishing behavior (: .94, the extent to which the teacher gets angry); and (8) strictness (: .92, the extent to which the teacher is strict). The researchers found a high level of internal consistency with = .81 for all the categories. The participants rated the items based on the anchor points of never = 1, seldom = 2, sometimes = 3, often = 4, always = 5.

Student engagement instrument (SEI)

SEI (Appleton et al., 2006) was used to assess the participants cognitive and emotional engagement. This instrument contains 33 items that are classified under five categories for measuring: (1) teacher-student relationship (: .88, the extent to which the teacher and the staff care about students at school); (2) peer support for learning (: .82, the extent to which students support each other); (3) family support for learning (: .76, the extent to which family cares about the student); (4) control and relevance of schoolwork (: .80, the extent to which the tasks and activities are relevant and the tests do a good job of measuring); and (5) future aspirations and goals (: .78, the extent to which students are hopeful about the future). The future aspirations and goals and control and relevance of schoolwork are the

aspects of cognitive engagement. Moreover, peer support, teacher-student relationship, and family support are the aspects of emotional engagement. The present study found = .85 for the whole scale. The participants rated the items based on the anchor points of 1 = strongly disagree to 4 = strongly agree.

State motivation scale (SMS)

State Motivation Scale (SMS) (Christophel, 1990) was used in order to collect information about the participants state motivation. This questionnaire is about how learners feel about the lesson they have completed**.** This questionnaire contains 12 bipolar semantic differential adjectives. The bipolar adjectives include motivated, unmotivated, interested, uninterested, involved, uninvolved, not stimulated, stimulated, don twant to study, want to study, inspired, uninspired , unchallenged, challenged , uninvigorated, invigorated , unenthused, enthused , excited, not excited , aroused, not aroused , and not fascinated, fascinated . The researchers found internal consistency with = .78. The participants rated the items on a seven-point semantic differential scale ranging from 1 to 7.

Validity and reliability of the instruments

To ensure the validity of the questionnaires, two experts in the field of second language research were asked to read the questionnaires. These experts believed that these instruments were appropriate for EFL learners. As shown in Table 1, the instruments also showed good internal consistency in the present study (> .7).

Procedure

The data were collected in summer and fall 2017 semesters. After getting necessary permission for data collection, the researchers contacted the language learners and those who agreed to participate were instructed to complete the questionnaires. The learners were asked to go through the items and rate them based on the mentioned anchor points. The learners were also asked to complete the demographic part of the questionnaires. It took the participants about 20 minutes to complete the questionnaires. The learners were not

required to write down their names on the questionnaires to encourage them to respond honestly. Since the items included both positive and negative statements, the responses for negative statements were reverse-coded in the analysis.

Table 1

Reliability statistics of the instruments

	Cronbach's Alpha	N of Items
WIHIC	.939	48
QTI	.815	48
SEI	.851	33
SMS	.784	12

***Note*:** WIHIC = What Is Happening Inside the Classroom Scale, QTI = Questionnaire for Teacher Interaction, SEI = Student Engagement Instrument, and SMS = Student Motivation Scale.

Results

As mentioned before, the purpose of this study was to investigate whether there was any relationship between classroom environment and teacher behavior, and EFL learners engagement and state motivation. Appendices 1, 2, and 3 show the descriptive statistics of the variables of the study.

The first research question examined whether there was a significant relationship between classroom environment and learners engagement with classroom activities. To answer this question, first, the correlation between classroom environment and learners engagement with classroom activities was calculated. Then, the correlation between different components of these variables was measured. The results of Pearson correlation test showed that there was a moderate relationship ($r = .52$, $p < 0.05$) between classroom environment and learners engagement. Thus, it can be concluded that classroom environment can influence students engagement.

With regard to the correlation between different components of classroom environment and learners engagement with classroom activities, the results of statistical analysis showed that there was a moderate correlation (r = .47, $p < 0.05$) between task orientation and learners engagement. This can show that the more learners consider the activities and goals of the classroom important, the higher their level of engagement will be. The results also showed that there was a moderate correlation (r = .44, $p < 0.05$) between teacher support and learners engagement. This can indicate that if teachers are more supportive in classroom, learners will be more engaged. There was also a moderate correlation (r = .42, $p < 0.05$) between equity and learners engagement. This can indicate that learners perception of teachers fairness can increase their engagement with activitiesn Moreover, there was a moderate correlation (r = .40, $P < 0.05$) between student cohesiveness and learners engagement; this can show that as friendship and support among learners increase, learners engagement can increase as well.

Table 2

ANOVA regression analysis for Classroom Environment and Learners' Engagement

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5.056	1	5.056	40.038	.000
Residual	13.638	108	.126		
Total	18.694	109			

Note: Dependent variable: learners engagement, predictor: classroom environment

To further investigate the correlation between classroom environment and learners engagement, a regression linear analysis was also conducted. As shown in Table 2, the regression model was significant at $P = .000$ ($P < 0.05$, F (1, 108) = 40.038). Thus, it can be

stated that changes in learners engagement as the dependent variable can be related to changes in classroom environment.

The second research question examined whether there was a significant relationship between classroom environment and state motivation. To answer this question, first, the correlation between classroom environment and state motivation was calculated. Then, the correlation between the components of these variables was measured. The results of Pearson correlation test showed that there was a weak correlation (r = .21, $p < 0.05$) between classroom environment and state motivation.

With regard to the correlation between the components of classroom environment and state motivation, the results indicated that there was a weak correlation (r = .209, $p < 0.05$) between student cohesiveness and state motivation. It can be stated that as friendship and support among learners increase, learners affect towards the classroom may increase. Moreover, the results showed that there was a weak correlation (r = .191, $p < 0.05$) between task orientation and state motivation. This can indicate that as learners do more planned activities, their liking for the course (state motivation) can increase. There was also a weak correlation (r = .185, $P < 0.05$) between involvement and state motivation. This can show that as learners participation in classroom activities increases, their state motivation can increase as well. Finally, the results showed that there was a correlation (r = .186, $P < 0.05$) between cooperation and state motivation. It can be stated that if learners are involved with cooperative tasks and activities, their liking for the course (state motivation) can increase.

To further investigate the relationship between classroom environment and state motivation, a linear regression analysis was conducted. As shown in Table 3, the regression model was significant at $P = 0.023$ ($P < 0.05$, F (1, 108) = 5.318). Thus, it can be stated that changes in state motivation as a dependent variable can be related to changes in classroom environment.

Table 3

ANOVA regression analysis for Classroom Environment and State Motivation

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.437	1	2.437	5.318	.023
Residual	49.498	108	.458		
Total	51.935	109			

Note: Dependent variable: state motivation, predictor: classroom environment

The third research question examined whether there was a relationship between teacher behavior and learners engagement. The results of the correlational analysis showed that there was no relationship (r = - 0.06, $p > 0.05$) between teacher behavior and learners engagement. To further investigate the relationship between teacher behavior and learners engagement, a linear regression analysis was conducted. As shown in Table 4, the model was not significant ($p = .493 > 0.05$). Thus, there was no linear relationship between teacher behavior and the learners engagement, and teacher behavior did not predict the learners engagement.

Table 4

ANOVA regression analysis for Teacher Behavior and Learners' Engagement

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	.081	1	.081	.473	.493
Residual	18.613	108	.172		
Total	18.694	109			

Note: dependent variable: learners engagement, predictor: teacher behavior

The last research question, on the other hand, examined whether there was a relationship between teacher behavior and learners state motivation. The result of the Pearson correlation test (r = - 0.07, p > 0.05) showed that there was no relationship between teacher behavior and learners state motivation. However, with regard to the correlation between the components of teacher behavior and state motivation, the results indicated that there was a weak correlation (r = -.21, p < 0.05) between uncertainty and state motivation. It can be stated that as teacher uncertainty decreases, students liking for the course can increase.

To further investigate the relationship between teacher behavior and state motivation in general, a linear regression analysis was conducted. As shown in Table 5, the model was not significant (p = .463 > 0.05). Thus, there was no relationship between teacher behavior and state motivation, and teacher behavior did not predict state motivation in this study.

Table 5

ANOVA regression analysis for Teacher Behavior and State Motivation

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	.260	1	.260	.544	.463
Residual	51.675	108	.478		
Total	51.935	109			

Discussion

Research question one asked if there is a relationship between classroom environment and learners engagement. The results of statistical analysis indicated that all the aspects of classroom environment (students cohesiveness, involvement, task orientation,

equity, teacher support, and cooperation) were positively correlated with learners engagement. In addition, the results of regression analysis showed that classroom environment can predict learners engagement. These results are consistent with the findings of Sagayadevan and Jeyaraj (2012) and Shernoff et al. (2014), who found that classroom environment significantly influences learners engagement and learning in classroom.

With regard to the correlation between different components of classroom environment and student engagement, first, the findings indicated that there was a relationship between teacher support and learners engagement. This result is parallel with the results of the study by Furrer, Skinner, and Pitzer (2014). Based on this result, it can be concluded that in language classes, learners will be more encouraged to participate in language learning tasks and activities and to devote their attention to the learning process if the teacher treats them with respect, listens to their voices, and helps them when they have trouble. Thus, teachers can play a supportive role in learning by becoming friendly and helpful. Second, the results of this study showed that there was a relationship between task-orientation and learners engagement. This is parallel with the results of the study by Velayutham and Aldridge (2013), which showed that teachers should highlight the goals of each activity to students in order to increase their engagement and motivation. In addition, if the goals of the classroom activities are clear and relevant to learning, learners can be more engaged with classroom activities (Velayutham & Aldridge, 2013). This idea is also stressed in Dörnyei, Henry, and MacIntyre s (2014) Directed Motivational Currents theory, which argues that setting clear and mid-range goals can map out a clear pathway for learners to achieve ultimate language learning goals. This result can, therefore, contribute to the previous research by shedding further light on the importance of goal setting in language classes.

Third, the results of this study indicated that there was a relationship between student cohesiveness and cooperation and learners engagement. This result is parallel with the results of the

studies by Velayutham and Aldridge (2013), Fredricks et al. (2004), and Furrer et al. (2014), which suggested that the creation of a friendly atmosphere in classroom is an important aspect that affects learners engagement. Hence, it can be concluded that when the class atmosphere is in a way that language learners have the opportunity to talk, work together, cooperate on the learning tasks, and provide emotional support to each other, they will have a better chance to know each other and build a social bond during the lessons. Thus, they will be more encouraged to participate in classroom activities. Moreover, when they consider their classroom as a place where their ideas are respected, they are more likely to be engaged (Ryan & Patrick, 2001). Fourth, the results of this study indicated that there was a relationship between involvement and learners engagement. This result is consistent with the results of the studies by Velayutham and Aldridge (2013) and Fredricks et al. (2004). This result can suggest that when the teacher gives opportunities to learners to take part in group activities and discussions, their confidence increases, thus, their engagement. Finally, the results of this study showed that there was a relationship between equity and learners engagement. This can indicate that when learners have equal opportunities to participate and discuss their opinions in the classroom, and the teacher behaves equally with learners, learners participation will increase.

Research question two asked if there is a relationship between classroom environment and state motivation. The results of statistical analysis revealed that there was a correlation between four aspects of classroom environment (students cohesiveness, involvement, task orientation, and cooperation) and state motivation. However, there was no relationship between teacher support and equity and state motivation. In addition, the results of regression analysis showed that classroom environment can predict state motivation. These results are consistent with the findings of Chua et al. (2009) and Velayutham and Aldridge (2013), who found that there was a significant relationship between classroom environment and motivation. Moreover, previous research (Chua et al., 2009; Wei, 2011; Velayutham & Aldrige, 2013;

Blanco, 2015) has shown that students perception of classroom environment is strongly related to motivation. As such, based on the results of this study, it can be concluded that when learners perceive classroom atmosphere friendly, they develop positive affect towards the class and its content, and hence their state motivation can increase.

With regard to the correlation between different components of classroom environment and state motivation, first, the findings showed that there was a relationship between student cohesiveness, cooperation, and state motivation. This result is consistent with the results of Chua et al. (2009) study, which suggested that supportive and cooperative classroom atmosphere can increase learners state motivation in language classes. This result is also consistent with the findings of Wei (2011), who found that there was a positive correlation between affiliation (friendship and cooperation) and learners motivation; this is because students like to work in group rather than individually. Wei (2011) argues that when students work in group and support each other in problems, a friendly atmosphere and teamwork will be created among the students, thus enabling them to develop positive feelings towards the course. This result is also parallel with the results of Brophy (1987) and Anderson, Hamilton, and Hattie (2004), who indicated that learners motivation can be influenced by communication and socialization in the classroom environment. Thus, it can be argued that teacher˚ student interaction and peer support can increase learners motivation. Moreover, the results indicated that there was a relationship between involvement and state motivation. This result is parallel with the findings of Chua et al. (2009) and Velayutham and Aldridge (2013), who suggested that when learners are encouraged to participate in classroom activities and discussion and express their opinions, their motivation for learning increases.

The third and fourth research questions examined if there is a relationship between teacher behavior, students engagement, and state motivation. The results of statistical analysis showed that teacher behavior was not correlated with the participants engagement and

state motivation. Moreover, the results of regression analysis indicated that teacher behavior could not predict the participants engagement and state motivation. These findings do not support the findings of earlier studies (Kraft & Doughtery, 2013; Maulana et al., 2012; Smart, 2009; Skinner et al., 2008), which indicated that there was a significant relationship between teacher behavior and students engagement and motivation. Smart (2009) argues that variety of factors such as family, institute atmosphere, peer support, and cultural factors can mediate the influence of teacher behavior. As there was no follow up data collection through methods such as retrospection, it cannot be argued why it happened. One reason for this result can be attributed to the fact that the number of the teachers being evaluated by the participants with regard to their behavior was low (7 teachers). Therefore, future studies with more participants should be conducted to come up with more concrete results. However, the findings of the study indicated that there was a negative relationship between teacher uncertainty (a sub-component of teacher behavior) and state motivation. This result is parallel with the results obtained by Maulana et al. (2012), who suggested that when teachers act as if they know what to do in the classroom, students view their behavior positively and can trust them.

As the first attempt to examine the concepts of classroom environment, teacher behavior, student engagement, and state motivation in a language classroom, the present study can show that in addition to issues such as task characteristics and planning (Amiryousefi, 2017), these concepts are also important and can influence learners task performance and language development. Although, most of the research in the domain of language learning and teaching is devoted to issues such as input, variability, feedback, and interaction, this study can suggest that besides these issues, concepts such as class environment and teacher behavior can determine the kind of relationship between the teacher and the learners and the kind of language outcomes learners can achieve. Thus, as Wei et al. (2009) argue, teachers need to improve their interpersonal behavior and

create a language class which is a place for learning and engagement by, for example, taking into account the aspects of teacher interpersonal behavior, classroom environment, and engagement discussed within this and other similar studies and by examining their students perceptions of their teacher s actual and preferred behavior and actual and preferred class environment. This and other similar studies in the domain of language learning and teaching can thus help teachers identify those aspects that are crucial for effective language learning. Additionally, this study can suggest that engagement is aspectual and contains aspects such as emotional and cognitive engagement, which can, to a great extent, determine learners engagement with the content of the tasks and activities and their language development. However, the potential relationship and contributions of the variables considered within this study should yet be realized by further research in different contexts and with different groups of participants.

Despite the above-mentioned positive findings, the present study had some limitations and thus further work is needed. First, the sample size was small in terms of the number of the classes (7 classes), the number of the teachers being assessed by the students in terms of their behavior, and the number of the students thus limiting statistical power and the generalizability of the findings. Future studies could benefit from a larger sample size and participants from different educational settings (e.g. university, school) and can include different types of outcome variables such as interest, willingness to communicate, and achievement scores and more covariates such as participants gender and socioeconomic status. Finally, the inclusion of other reliable methods such as observation, interviews, and retrospection could enable the researchers to come up with more concrete results.

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Appendix 1.

Descriptive statistics of the variables for WIHIC scale

	N of Items	N	Min.	Max.	M	SD
WIHIC	48	110	2.50	5.00	4.1074	.56146
1-Task orientation	8	110	2.38	5.00	4.4648	.52711
2-Equity	8	110	1.75	5.00	4.2205	.76961
3-Student cohesiveness	8	110	2.50	5.00	4.1705	.59786
4-Teacher support	8	110	1.25	5.00	4.0625	.87225
5-Cooperation	8	110	2.00	5.00	3.948	.7976
6-Involvement	8	110	2.00	5.00	3.7784	.75356

***Note*:** WIHIC = What Is Happening Inside the Classroom Scale,

Appendix 2.

Descriptive statistics of the variables for QTI scale

	N of Items	N	Min.	Max.	M	SD
QTI	48	110	2.35	4.58	2.9153	.31699
1-Leadership	6	110	2.50	5.00	4.4212	.58902
2-Understanding	6	110	2.67	5.00	4.3833	.59154
3-Friendly/helping	6	110	2.17	5.00	3.9515	.67061
4-Admonishing	6	110	1.67	4.00	3.266	.4962
5-Strict	6	110	1.00	5.00	2.689	.8898
6-Freedom	6	110	1.33	5.00	2.615	.6635
7-Dissatisfied	6	110	1.00	5.00	1.7561	.77574
8-Uncertain	6	110	1.00	3.17	1.597	.5702

Note: QTI = Questionnaire for Teacher Interaction,

Appendix 3.

Descriptive statistics of the variables for SEI and SMS scales

	N of Items	**N**	**Min.**	**Max.**	**M**	**SD**
SEI	33	110	1.64	3.94	3.0580	.41413
1-Future goal	5	110	1.75	4.00	3.1886	.55664
2-Family support	4	110	1.75	4.00	3.1886	.55664
3-Relevance of schoolwork	9	110	1.00	4.00	3.0020	.52483
4-Peer support	6	110	1.00	4.00	3.0803	.49086
5-Teacher-student relationship	9	110	1.67	4.00	2.952	.5038
SMS	12	110	1.58	6.67	5.4258	.69027

Note: SEI = Student Engagement Instrument, and SMS = Student Motivation Scale.