Predictive Validity of Achievement Goals for EFL University Students' Attainment Emotions, and Academic Success

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Abstract

The present study aimed at exploring the predictive validity of achievement goals for EFL university students' attainment emotions, and academic success in the context of Iran. To this end, 440 EFL university students responded to the relevant instruments. The results revealed that learners' mastery-approach, mastery-avoidance, and performance-approach goals were significantly positively correlated with positive attainment emotions, and negatively associated with negative attainment emotions. Furthermore, EFL learners' performance-avoidance goals were significantly negatively associated with their positive attainment emotions, and positively related to their negative attainment emotions. Additionally, EFL learners' mastery-approach, performance-approach, and performance-avoidance goals were significant predictors of all attainment emotions, while EFL learners' mastery-avoidance goal was a significant predictor of their hope, anger, and hopelessness. Besides, EFL learners' achievement goals significantly correlated with their academic success. Finally, all achievement goals predicted students' academic success, and also mastery-approach goal was the strongest predictor of students' academic success. The results can benefit EFL teachers, and learners to grasp a better picture of the association between achievement goals and attainment emotions, and academic success of EFL students in the context of Iran.

Keywords: Achievement Goals; Attainment Emotions; Academic Success; EFL University Students; Predictive Validity

1. Introduction

It is believed that the notion of goal orientation offers a great deal of importance in the elucidation of the motivational predictors of achievement, and learning performance (Meece et al., 2006). Goal orientations are considered a dispositional preferences for definite objectives that can be followed in learning or accomplishment settings (Austin & Vancouver, 1996). Thus, goal orientations refer to future, anticipated results of actions, and also include a cognitive depiction of such action consequences. In the past three decades, the theory of achievement goals has been the topic of large studies in the field of educational psychology (Ntoumanis & Biddle, 1999). The notion of achievement goals is defined as competency-relevant objectives that students strive for in attainment situations (Huang, 2011).

Likewise, achievement goals are typically considered as the forms of consequences that learners follow in their learning settings (Kord, 2018). Various research studies have confirmed the sustained advantages of valuable goal profiles beyond influences of cognitive capability, and background features (Hornstra et al., 2017). It is noteworthy that there are two chief forms of achievement goals, namely, mastery goals, and performance goals (Elliot & McGregor, 2001). The research proposes that goal orientations may occur independently of each other, permitting learners to implement multiple goals at the same time, such as a positioning towards information mastery along with endeavoring to perform well on an examination (Pintrich, 2000).

Another prominent construct is attainment emotions which are defined as emotions tied openly to achievement outcomes, and activities (Pekrun, 2006). An essential feature of achievement situations is the fact that they encompass principles for individuals' performance concerning accomplishment versus failure. Such decisions can come from students or teachers, and they can be conveyed based on a typical scoring system or verbally. Thus, attainment emotions are those emotions that arise concerning the future, past, or present experiences of accomplishment, and failure. Consequently, social emotions such as jealousy, sympathy, or envy are not regarded as attainment emotions. It should be noted that learning-related attainment emotions are divided into two categories of positive emotions (i.e., enjoyment, hope, and pride), and negative emotions (i.e., anger, anxiety, shame, hopelessness, and boredom) (Pekrun, 2014).

Based on the broad review of the literature (e.g., Anderman & Patrick, 2012; Huang, 2011; Khajavy, 2021; Pekrun& Stephens, 2010; Ruishi et al., 2021; Wang et al., 2021) and to the best of the investigator's knowledge, no study to date has explored learners' achievement goals, attainment emotions and academic success in EFL Settings. Consequently, the current study was an effort

to fill the abovementioned gap partially. It is worth noting that investigating the relations between achievement goals and success is of utmost importance mostly since academic accomplishment is greatly considered as a sign of educational accomplishment (Anderman & Patrick, 2012). Likewise, emotions are believed to be ubiquitous in educational and language learning in general (Pekrun & Linnenbrink-Garcia, 2012).

Based on the importance of EFL students' achievement goals in the field of language learning, and their potential influences on students' attainment emotions, and academic success, this study examined the predictive validity of achievement goals for EFL university students' attainment emotions, and academic success. In consort with different implications for language instruction, the results of this study will essentially contribute to advancing both EFL educators, and learners' understanding of the predictive validity of achievement goals for the above-mentioned constructs. In this study, attempts were made to answer the following research questions:

RQ1: Are there any significant relationships between EFL students' achievement goals and their attainment emotions?

RQ2: What achievement goals are significant predictors of Iranian EFL students' learning-related attainment emotions?

RQ3: Is there any significant relationship between EFL students' achievement goals and their academic success?

RQ4: What achievement goals are significant predictors of Iranian EFL students' academic success?

2. Review of the Related Literature

2.1. Achievement Goals

In different self-regulated learning models, goals are underscored as guiding powers that inspire learning performance. More precisely, goals are regarded to motivate, and direct actions encompassing the planning, commencement, observing, and assessment of the learning procedure. Theoretically, goals can concentrate on any of the plausible outcomes of courses of action followed throughout the learning procedure. A classification of superordinate goals has been suggested by Ford (1992), in which people pursue various goal types including achievement goals, social goals, or emotion-related goals. Recently, a substantial investigation has been done on learners' achievement goals. It is worth noting that achievement goals refer to cognitive demonstrations of the different determinations learners might implement for their learning in different

achievement circumstances (Urdan & Maehr, 1998). As aptly pointed out by Ryan and Deci (2000), these determinations would direct, and guide learners' cognition, and performance as they undertake various academic activities and tasks.

According to Elliot and McGregor (2001), achievement goals include the following main types: The first type is a mastery goal, which is recognized as an approach objective that stresses attaining competency based on task-based or interactive principles. The second type is a performance-approach goal, which is known as an approach objective that highlights accomplishing competency relative to others or normative principles (Elliot & McGregor, 2001). The third type is a performance-avoidance goal, which is an avoidance objective that is relative to avoiding ineffectiveness proportionate to other individuals (Elliot & McGregor, 2001). The last type is a mastery-avoidance goal, which is characterized as an avoidance objective described by avoiding failure, and misapprehension to acquire, with a performance failure as a measure of ineffectiveness (Elliot & McGregor, 2001).

Different research studies have indicated that the forms of goal orientations designated above are connected with various affective, and cognitive procedures, along with dissimilarities in learning performance (Meece et al., 2006). More precisely, a mastery-approach goal tends to be connected with the challenging activities selection, extensive determination, the implementation of deep-level learning approaches, and the best self-regulation of one's learning activities such as adaptive reactions to failure. In the same manner, the performance-approach goal is normally found to associate with different positive self-evaluations, and temporary performance improvements, however, does not guarantee rigorous, longstanding engagement with a particular issue. Furthermore, learners with a robust work avoidance goal repeatedly display little attentiveness to their learning purposes, participate in unsuccessful study strategies, and validate poor attainment levels (Pintrich, 2000).

2.2. Attainment Emotions

Attainment emotions are naturally considered as those emotions, in every respect dependent on both attainment outcomes and activities (Pekrun et al., 2011). Likewise, it can be stated that attainment emotions are considered as emotions characteristically associated with attainment activities, their accomplishment, and failure consequences. As rightly pointed out by Pekrun (2014), there are two main forms of attainment emotions, explicitly, positive emotions (i.e., hope, pride, and enjoyment), and negative emotions (i.e., hopelessness, anxiety, shame, anger, and boredom). It is believed that the control and value cognitive appraisals are the direct attainment emotion antecedents (Pekrun et al., 2011). It has been argued that the cognitive appraisals of control

over learning encompass learners' insight into their competence to productively perform activities, and also consequence prospects, while cognitive appraisals of the value of learning fundamentally are in connection with the perceived importance of accomplishment activities, and consequences (Pekrun et al., 2017).

According to Pekrun et al., (2006), and Frenzel et al. (2009), attainment emotions encompass four major components, namely, valence, object focus, activity, and self-versus other references. The concept of valence is referred to negative, and positive accomplishment emotions. Positive accomplishment emotions such as hope, pride, and enjoyment are linked to learners' attainment, although negative accomplishment emotions such as anxiety, and shame are logically connected to learners' failure (Pekrun, 2006). Moreover, object focus, the second criterion, is referred to outcome or activity, whereas the third criterion, namely, activity, is essentially referred to triggering and neutralizing negative, and positive accomplishment emotions (Pekrun, 2006). The last criterion, i.e., self-versus other references, encompasses whether an individual understands the source of accountability of attainment or failure as within the self or another individual (Frenzel et al., 2009). A principally fascinating emotion concerning self-versus other reference is the concept of anger. On the face of it, one may categorize anger as other-related for the reason that one is normally angry at someone else. On the other hand, the emotion of anger can also be targeted to oneself, for instance, once one deduces a failure as attributable to one's performance.

2.3. Empirical Studies

Different research studies have been conducted on achievement goals, attainment emotions, and academic success in different educational contexts. Recently, Brdovčak (2017) examined the association between appraisals of control, and value with the achievement of emotions, and academic accomplishment. The results of the study indicated that positive attainment emotions were positively correlated with students' academic accomplishment, while negative emotions were negatively associated with learners' academic accomplishment. Additionally, Pekrun et al., (2017) conducted a study to suggest reciprocal effects model of emotion and accomplishment. The results of their investigation revealed that positive emotions predicted academic success, and vice versa. Moreover, negative emotions negatively predicted the participants' academic success.

Similarly, Kohoulat et al. (2016) investigated the potential effect of achievement goals on the attainment emotions of learners. The findings of their study revealed that there existed significant associations between achievement goals and learners' attainment emotions. The findings also indicated that the

mastery-approach was a significant predictor of all emotions, while mastery avoidance was found to be a significant predictor of enjoyment and boredom. The results also revealed that performance approach was a significant predictor of the participants' pride, while, performance avoidance was found to be a significant predictor of their anxiety, shame, and hopelessness.

In addition, Wang et al. (2021) explored the potential link between EFL pupils' academic adjustment and their achievement goals. The researchers concluded that mastery-approach goals directly predicted EFL pupils' academic adjustment. However, as pointed out by Wang et al. (2021), the findings of their study indicated that performance-approach goals were reversely associated with EFL pupils' academic adjustment.

Furthermore, in an EFL context, Ruishi et al. (2021) investigated the association between Chinese EFL learners' achievement goals and their language accomplishments. The results of their investigation revealed that there was a significant and direct association between the participants' language accomplishment and their achievement goals. By the same token, Pekrun and Stephens (2010) concluded that emotions are of utmost importance for learners' attainment performance. Likewise, Huang (2011) reported that the variation in the associations between attainment emotions and achievement goals can be elucidated by attainment emotion signs.

3. Method

3.1. Design

The design was descriptive, ex post facto, because this study investigated the predictive validity of achievement goals for EFL university students' attainment emotions, and academic success. The researchers had no control over what had happened to the participants before, and no treatment was given to them. Achievement goals were regarded as the predictor variables while attainment emotions, and academic success were the predicted variables. In addition, the context, gender, age, and academic degree were regarded as the control variables of the study.

3.2. Participants

Four hundred and forty senior EFL learners studying at different universities from various regions in Iran took part in the study. An equal number of male and female students took part in this study. It is worth noting that the participants were studying a B.A degree in EFL- related fields. The participants were selected based on cluster random sampling, in which clusters were made based on the university types in Iran and then only those in the public universities were selected to take part in the study. The EFL learners' age ranged from 22-

$35(M_{age}= 28)$.

3.3. Instruments

The following instruments were used to collect the required data in this study.

3.3.1. Achievement Goals Questionnaire (AGQ)

To assess the participants' achievement goals, the Achievement Goals Questionnaire (AGQ) developed by Elliot, and McGregor (2001) was administered. The AGQ includes four subscales of performance avoidance, performance approach, mastery avoidance, and mastery approach, each including three items (Elliot & McGregor, 2001). This questionnaire includes twelve 5-point Likert scaled items, ranging from "strongly disagree (=1)" to "strongly agree (=5)". The participants completed this instrument in 10 minutes. For each particular achievement goal, the items of that particular achievement goal were summed separately to obtain a total score, a higher score specifies the higher level of that particular achievement goal. The reliability of the subscales of the instrument (i.e., performance approach, performance avoidance, mastery approach, and mastery avoidance) was found to be 0.87, 0.89, 0.84, and 0.83, respectively in the present study.

3.3.2. The Achievement Emotions Questionnaire (AEQ)

To assess the participants' attainment emotions, the Attainment emotions Questionnaire (AEQ) primarily developed by Pekrun et al., (2005) was administered. This questionnaire comprises 72 five-point Likert-scale items and measures five negative attainment emotions (namely, boredom (11 items), hopelessness (11 items), shame (11 items), anxiety (11 items), and anger (6 items), and three positive attainment emotions (namely, pride (6 items), hope (6 items), and enjoyment (10 items). The items of the aforementioned instrument ranged from "strongly disagree (=1)" to "strongly agree (=5)". The participants completed this instrument in 45 minutes. Using Cronbach's alpha, the reliability of boredom ($\alpha = 0.84$), hopelessness ($\alpha = 0.78$), shame ($\alpha = 0.83$), anxiety ($\alpha = 0.82$), anger ($\alpha = 0.78$), pride ($\alpha = 0.82$), hope ($\alpha = 0.81$), and enjoyment ($\alpha = 0.79$) were calculated.

3.3.3. Academic Success

To assess the EFL university learners' academic success, their total Grade Point Averages (GPAs) were taken into consideration. In doing so, in this study, the participants' GPAs were collected from different universities in Iran. It is worth noting that the total GPA score is 20.

3.4. Procedure

The data were collected from 15 universities in the context of Iran. The participants were originally enlightened about the objectives, and purposes of the study, and assured confidentiality, and anonymity. Informed consent for voluntarily taking part in the study was obtained. The abovementioned research questionnaires, i.e. AGQ, and AEQ were administered to 440 senior EFL university learners nationwide. The EFL university learners were requested to pay due consideration to the items of the questionnaires and provide the most proper response. The participants completed AGQ, and AEQ in about 55 minutes. It is worth noting that the instruments were in English. Furthermore, the EFL university learners' total GPAs were collected from the universities, in which they had studied.

3.5. Statistical Analyses

To answer the first question, i.e., *Are there any significant relationships between EFL students' achievement goals and their attainment emotions?* Pearson Correlation Coefficients were run. Concerning the second question, i.e., *What achievement goals are significant predictors of Iranian EFL students' learning-related attainment emotions*? Linear Regression analyses were run. To answer the third question, i.e., *Is there any significant relationship between EFL students' achievement goals and their academic success*? Pearson Correlation Coefficients were run. Concerning the fourth question, i.e., What achievement goals are significant predictors of Iranian EFL students' academic success?, a Linear Regression analysis was run.

4. Results

4.1. Findings of the First Research Question

To answer the first question, Pearson Correlation Coefficient was used (see Tables 1 and 2).

Table 1

Descriptive Statistics of EFL Students' Achievement Goals and Attainment Emotions

	Mean	Std. Deviation	N
Achievement Goals			
Mastery-approach	13.15	2.21	440
Mastery-avoidance	11.45	2.26	440
Performance-approach	11.92	2.25	440

Performance-avoidance	9.91	2.54	440
Attainment emotions			
Enjoyment	34.74	4.46	440
Hope	19.40	2.96	440
Pride	19.47	2.94	440
Anger	22.36	4.15	440
Anxiety	39.33	6.69	440
Shame	40.12	5.78	440
Hopelessness	37.05	5.79	440
Boredom	35.50	7.50	440

The mean and standard deviation for EFL learners' achievement goals and emotions are shown in Table 1 above. As depicted in Table 1, the mean and standard deviation for EFL students' mastery-approach enjoyed 13.15 and 2.21, for mastery-avoidance M = 11.45 and SD = 2.26, for performance-approach M = 11.92 and SD = 2.25, and performance - avoidance M = 9.91 and SD = 2.54. Additionally, the mean and standard deviation for EFL students' Boredom enjoyed 35.50 and 7.50, for Hopelessness *M* = 37.05 and *SD* = 5.79, for Shame *M* = 40.12 and *SD* = 5.78, for Anxiety *M* = 39.33 and *SD* = 6.69, for Anger *M* = 22.36 and *SD* = 4.15, for Pride *M* = 19.47 and *SD* = 2.94, for Hope *M* = 19.40 and *SD* = 2.96, and Enjoyment *M* = 34.74 and *SD* = 4.46.

Table 2
The Pearson Correlation between EFL Students' Achievement Goals and Attainment Emotions

		Enjoyment	Hope	Pride	Anger	Anxiety	Shame	Hopelessness	Boredom
Mastery-approach	Pearson Correlation	.43**	.50**	.49**	-.46**	-.42**	-.40**	-.47**	-.37**
	Sig. (2-tailed)	.00	.00	.00	.00	.00	.00	.00	.00
	N	440	440	440	440	440	440	440	440
Mastery-avoidance	Pearson Correlation	.23**	.21**	.25**	-.18**	-.18**	-.20**	-.16**	-.16**
	Sig. (2-tailed)	.00	.00	.00	.00	.00	.00	.00	.00
	N	440	440	440	440	440	440	440	440
Performance-approach	Pearson Correlation	.50**	.48**	.55**	-.49**	-.46**	-.52**	-.53**	-.48**
	Sig. (2-tailed)	.00	.00	.00	.00	.00	.00	.00	.00
	N	440	440	440	440	440	440	440	440
Performance-avoidance	Pearson Correlation	-.48**	-.46**	-.39**	.47**	.41**	.49**	.44**	.40**
	Sig. (2-tailed)	.00	.00	.00	.00	.00	.00	.00	.00
	N	440	440	440	440	440	440	440	440

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

As depicted in Table 2, EFL learners' mastery approach, mastery avoidance, and performance approach were significantly positively correlated with their pride, hope, and enjoyment, and negatively associated with their boredom, hopelessness, shame, anxiety, and anger. Additionally, EFL learners'

performance avoidance was significantly negatively correlated with their pride, hope, and enjoyment, and positively related to their boredom, hopelessness, shame, anxiety, and anger.

4.2. Findings of the Second Research Question

To answer the second question, linear regression analyses were run for each achievement emotion as a predicted variable, and the four achievement goals, i.e., mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance, as predictor variables (see Table 3).

Table 3

Regression Analyses

	Enjoyment			Hope			Pride			Anger			Anxiety			Shame			Hopelessness			Boredom		
	β	t	p	β	t	p	β	t	p	β	t	p	β	t	p	β	t	p	β	t	p	β	t	p
Mastery-approach	.19	3.73	.00	.34	6.80	.00	.28	5.55	.00	-.27	-5.43	.00	-.24	-4.63	.00	-.13	-2.66	.00	-.29	-5.98	.00	-.15	-2.88	.00
Mastery-avoidance	-.01	-.35	.72	-.09	-2.04	.04	-.03	-.73	.46	.09	2.08	.03	.07	1.57	.11	.03	.68	.49	.14	3.24	.00	.05	1.15	.25
Performance-approach	.28	6.16	.00	.23	5.09	.00	.36	7.89	.00	-.26	-5.65	.00	-.26	-5.56	.00	-.32	-7.06	.00	-.33	-7.44	.00	-.33	-6.75	.00
Performance-avoidance	-.28	-6.44	.00	-.24	-5.71	.00	-.13	-3.05	.00	.26	6.14	.00	.21	4.78	.00	.30	7.03	.00	.21	4.90	.00	.20	4.50	.00
R^2	.36			.38			.38			.36			.30			.36			.39			.29		
F	61.38			67.22			67.02			62.89			48.61			64.15			70.45			45.06		

As indicated in Table 3, EFL learners' mastery approach was found to be a significant predictor of all the attainment emotions, i.e., enjoyment, hope, pride, anger, anxiety, shame, hopelessness, and boredom. Moreover, EFL learners' mastery avoidance was found to be a significant predictor of their hope, anger, and hopelessness. Furthermore, EFL learners' performance approach, and performance avoidance were found to be significant predictors of all the attainment emotions, i.e., enjoyment, hope, pride, anger, anxiety, shame, hopelessness, and boredom.

4.3. Findings of the Third Research Question

To answer the third question, Pearson Correlation Coefficient was used (see Tables 4 and 5).

Table 4

Descriptive Statistics of EFL Students' Achievement Goals and Academic Success

	Mean	Std. Deviation	N
Academic Success	15.98	1.33	440
Achievement Goals			
Mastery-approach	13.15	2.21	440
Mastery-avoidance	11.45	2.26	440
Performance-approach	11.92	2.25	440
Performance-avoidance	9.91	2.54	440

The mean and standard deviation for EFL learners' achievement goals and academic success are shown in Table 3 above. As depicted in Table 1, the mean and standard deviation for EFL students' mastery approach enjoyed 13.15 and 2.21, for mastery-avoidance $M = 11.45$ and $SD = 2.26$, for performance-approach $M = 11.92$ and $SD = 2.25$, and performance - avoidance $M = 9.91$ and $SD = 2.54$. Moreover, the mean and standard deviation for EFL students' academic success enjoyed 15.98 and 1.33.

Table 5

The Pearson Correlation between EFL Students' Achievement Goals and Academic Success

		Mastery-approach	Mastery-avoidance	Performance-approach	Performance-avoidance
Academic success	Pearson Correlation	.44**	.13**	.48**	-.43**
	Sig. (2-tailed)	.00	.00	.00	.00
	N	440	440	440	440

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

As depicted in Table 5, EFL learners' mastery approach, mastery avoidance, and performance approach were significantly positively correlated with their academic success, while performance avoidance was significantly negatively associated with academic success.

4.4. Findings of the Fourth Research Question

To answer the fourth question, a linear regression analysis was run (see Table 6).

Table 6
Regression Output

	Academic success		
	Beta	t	Sig.
Mastery-approach	.30	5.83	.00
Mastery-avoidance	-.15	-3.35	.00
Performance-approach	.28	6.02	.00
Performance-avoidance	-.22	-5.15	.00
R^2	.35		
F	58.99		

As indicated in Table 6, all achievement goals, namely, mastery approach, mastery avoidance, performance approach, and performance avoidance were found to be significant predictors of their academic success. The comparison of β values revealed that the mastery approach had the largest absolute β coefficient ($\beta = 0.30$, $p = 0.00$) for academic success.

5. Discussion

This study intended to inspect, among Iranian EFL university learners, the predictive validity of achievement goals for EFL university students' attainment emotions, and academic success.

To examine the first question, the Pearson correlation coefficient was run. The results showed that EFL learners' mastery approach, mastery avoidance, and performance approach were significantly positively correlated with their pride, hope, and enjoyment, and negatively associated with their boredom, hopelessness, shame, anxiety, and anger. Based on the results in this respect, it can be discussed that these findings present evidence of the advantages of mastery approach, the mastery avoidance, and performance approach, and the disadvantages of performance-avoidance. It is worth mentioning that, based on interpersonal principles or task-based, mastery goal underlines accomplishing competency, while the performance-approach highlights achieving competency relative to other individuals or normative principles. The results also revealed that EFL learners' performance-avoidance goals were significantly negatively correlated with their pride, hope, and enjoyment, and positively related to their boredom, hopelessness, shame, anxiety, and anger.

As Elliot, and McGregor (2001) avowed, a performance-avoidance is regarded as an avoidance objective, which is relative to avoiding ineffectiveness relative to other individuals. The association between performance-avoidance objectives to learning related attainment emotions requires that hopelessness and shame induced by performance-avoidance objectives might themselves interdict the tryout of hope and pride. Similarly, the reason that the aversive essence of task engagement throughout avoidance objective continuance, it is not astonishing that these achievement goals (i.e., performance-avoidance objectives) simplify some negative learning-related attainment emotions

(Pekrun et al., 2009).

The results of this study are in line with those of different studies (e.g., Huang, 2011; Kohoulat et al., 2016; Liu, 2015; Pekrun et al., 2009; Puente-Diaz, 2012; 2013; Villavicencio & Bernardo, 2013), which showed that mastery goals were positively related to the positive learning related attainment emotions, and negatively related to negative learning related attainment emotions, while performance-avoidance goals were negatively related to positive learning related attainment emotions, and positively related to negative learning related attainment emotions.

To explore the second question, regression analyses were applied. The findings revealed that EFL learners' mastery approach was found to be a significant predictor of all the attainment emotions, while EFL learners' mastery avoidance was found to be a significant predictor of their hope, anger, and hopelessness. The results also indicated that EFL learners' performance approach and performance avoidance were found to be significant predictors of all the attainment emotions. One possible clarification for the results in this regard might be the fact that the theory of achievement goals joins achievement orientation objectives with learning-related attainment emotions (Huang, 2011).

Furthermore, concerning attainment emotions, the findings of the second question signify the prominence of discriminating between more particular groups of learning-related attainment emotions, over the general dissimilarity between negative, and positive affect. For instance, the results indicated that negative learning-related attainment emotions such as boredom, and anger were associated with mastery goals, whereas negative learning-related attainment emotions such as anger, and hopelessness were connected to performance-avoidance objectives. The findings of the second question are in agreement with those of Pekrun et al. (2006), Kavussanu et al. (2009), Spray et al. (1999), Nicholls et al. (2014), Ntoumanis and Biddle (1999), Proios (2014), and Kohoulat et al. (2016), who reported that achievement goals were significant predictors of learning related attainment emotions.

To investigate the third question, the Pearson correlation coefficient was run. The findings indicated that EFL learners' mastery approach, mastery avoidance, and performance approach were significantly positively correlated with their academic success, while performance avoidance was significantly negatively associated with their academic success. One conceivable justification for the findings of the third question might be the fact that EFL learners with the determination to understand information tend to be more successful, and effective in their academic conduct, and performance (Alkharusi, 2010). Likewise, those EFL learners who merely seek to perform, and conduct well on a particular test or examination without essentially understanding the

information or circumventing or avoiding the emergence of ineffectiveness do not necessarily have successful, and acceptable performance (Alkharusi, 2010). Learners with performance goals evade obstacles, and challenges, and have a preference for simple tasks wherein accomplishment is guaranteed (Kord, 2018).

The results of the third question are congruent with previous evidence (e.g., Gold, 2010; Kord, 2018; Hornstra et al., 2017; Huy, 2014; Pintrich, 2000) displaying that different achievement goals are correlated with EFL learners' academic success. However, it is noteworthy that they go beyond correlational evidence by disentangling the directional influences triggering the achievement goals–academic success association. In particular, the results propose that achievement goals undeniably have an impact on EFL learners' academic success (Elliot &Mcgregor, 2001). As aptly pointed out by Peetsma, and van der Veen (2013), learners with performance goals endeavor to prove their capabilities, and avoid negative conclusions of capability, and they have a low level of intrinsic incentive. Furthermore, as Dweck and Leggett (1988) asserted, performance goals inspire learners to concentrate on scoring better than other language learners or to circumvent the development of incompetency.

To examine the fourth question, regression analysis was applied. The results indicated that all achievement goals were found to be significant predictors of their academic success. The results also revealed that the mastery-approach goal was the stronger predictor of EFL learners' academic success. One plausible explanation might be the fact that achievement goals in general, and mastery goals, in particular, familiarize learners to concentrate on learning and also to achieve mastery over the content, and they have been associated with adaptive results such as high-quality academic performance, as well as good metacognition (Kord, 2018). Moreover, EFL learners with achievement goals pursue challenging activities, and tasks, and also strive under problematic circumstances (Dweck, 1986). Once confronted with failure, EFL learners respond with solution-oriented guidelines, along with continued or augmented positive affect, and continuous or better-quality academic performance (Elliot & Dweck, 1988), they persevere regardless of problematic events, pursue challenging accomplishments, and have a high level of intrinsic inspiration (Ames, 1992).

Another possible justification might be the fact that achievement goals are considered a prerequisite for student academic success since learners can typically control their language learning, and take accountability in this issue when they realize their own goals, and capabilities (Hornstra et al., 2017). It is believed that achievement goals can elicit learners' positive struggles to perform well (Midgley et al., 2001), support attainment once such achievement goals are related to positive expectations of achievement (Rawsthorne& Elliot, 1999), and

predict learners' actual achievement, and enthusiasm (Midgley et al., 2001). The results of the last question are in agreement with those of different studies (e.g., Cao & Nietfeld, 2007; Kord, 2018; Pintrich& Garcia, 1994; Rawsthorne& Elliot, 1999), who reported that learners' achievement goal was a significant predictor of their academic success.

6. Conclusion

The present study examined the predictive validity of achievement goals for EFL university students' attainment emotions, and academic success. It was concluded that EFL learners' mastery-approach, mastery-avoidance, and performance-approach goals were significantly positively correlated with positive learning-related attainment emotions, and negatively associated with their negative learning-related attainment emotions. Furthermore, EFL learners' performance-avoidance goals were significantly negatively correlated with their positive learning-related attainment emotions, and positively related to their negative learning-related attainment emotions. Moreover, EFL learners' mastery approach, performance approach, and performance avoidance goals were significant predictors of all learning-related attainment emotions, while EFL learners' mastery avoidance was found to be merely a significant predictor of their hope, anger, and hopelessness. In addition, EFL learners' achievement goals were found to be significantly correlated with their academic success. All achievement goals predicted students' academic success, and also mastery approach goals were found to be the strongest predictor of students' academic success.

This is crucial to bear in mind once working in language teaching, and education to support EFL learners develop various achievement goals for their learning, particularly the mastery-approach goals, which could benefit them induce more positive learning-related attainment emotions, and reduce negative learning-related achievement goals, and set university students on a path towards higher academic success. In other words, EFL teachers, administrators, and policymakers should support learners in terms of setting proper achievement goals, and how to optimally support learners' goal-setting developments. As pointed out by Huang (2011), once learners highlighted a normative principle in following performance objectives, this can cause them assailable to destructive influence. Consequently, language teachers, parents, and school counselors are suggested to inspire learners to pursue the mastery-approach, mastery avoidance, and performance-approach goals, and disregard different performance-avoidance objectives. Likewise, the findings also can raise EFL learners' mindfulness of the prominence of achievement goals, and inspire them to seek opportunities to improve these features to have better academic performance, enhance their positive attainment emotions, and reduce their negative attainment emotions.

As preliminary empirical studies designated that achievement goals are 'domain-specific' in nature (Bong, 2001), consequently, it is recommended to replicate this study in other EFL contexts to identify whether the same results would be obtained. Similarly, since achievement goals are considered as domain-specific (Bong, 2001), consequently, the generalizability of the findings must be done with caution. Future investigation necessitates teasing out the possible effects of attainment emotions on learners' academic performance in both private and public-sector contexts. To sum it up, the findings provided original and valuable information concerning the predictive validity of achievement goals for EFL university students' attainment emotions, and academic success in the context of Iran.

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