Exploring the Preferred Achievement Goal Orientation of Iranian EFL Learners and Its Relationship with Learning Strategies and Academic Achievement

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Abstract

In recent years, educational studies have acknowledged that academic motivation is a powerful predictor of students' academic achievement. Goal orientation is one facet of academic motivation that concerns the reasons for which students pursue achievement activities. Using AGQ and R-SPQ-2F instruments, this study seeks to identify dominant achievement goal orientation held by Iranian EFL learners and examine the relationships between students' learning goals. approaches, achievement and academic achievement. The sample consisted of 80 EFL students majoring in English Literature and English Translation. The results of the data analysis indicated that the mastery goal is the dominant goal orientation adopted by learners. Afterward, performance-approach and performance-avoidance goals are respectively the achievement goal orientations adopted by Iranian EFL learners. Significant correlations were found between both mastery and performanceapproach goals and deep approaches. Performance-avoidance goals were found to be significantly and positively related to surface approaches to learning. In addition, performance-approach goals were positively related to academic outcome. whereas. performance-avoidance goals were negatively related to academic achievement. There was no relationship between mastery goals and students' outcomes. The study also bears some theoretical and practical pedagogical implications regarding the importance of motivation and goal setting which will be offered and discussed in detail at the end of the study.

Keywords: Goal orientation, EFL learners, Language performance, Education, EFL context

Introduction

Creativity for several decades, motivation and affective variables have been 'hot topics' in educational psychology since they are believed to have profoundly influenced student learning. Contrary to the previous studies that considered particular cognitive skills necessary for effective learning, the focus of contemporary research is on psychological factors and their relationship with academic performance. Accordingly, Wolters and Rosenthal (2000) define motivation as the forces inspiring a person to become involved in a task or to strive to achieve a goal; in an academic setting, it concerns the reasons and the purposes for which a student works to obtain a desirable outcome. Among these are motivational processes that affect students' level of cognitive engagement in school work and the success in using and acquiring these cognitive skills (Ames, 1992). Current motivational theories go beyond traditional approaches of motivation and basically focus on social-cognitive processes underlying motivated behavior. One of these theories is achievement goal theory.

Despite the importance of motivation, goal orientation, and academic achievement, there are still many unanswered questions regarding them, especially in EFL contexts. To put it more clearly, there is no coherent agreement about the preferred achievement goal orientations among EFL learners. Likewise, the existence or lack of existence of a link between learners' achievement goal and their selected learning strategies is also another largely-open- to-investigation issue in EFL contexts. Finally, the interrelationship of EFL learners' achievement goals and their academic achievement also needs further research and investigation.

All in all, given the above-cited points, the present study aimed to address the following research questions:

Q1. What is the preferred achievement goal orientations held by Iranian EFL learners?

Q2. Is there any significant relationship between students' achievement goals and their employed learning strategies?

Q3. Is there any significant relationship between students' achievement goals and their academic achievement?

Literature Review

Achievement goal theory or normative goal theory (Nicholls, 1984) is the most prominent theory of motivation in social-cognitive framework. It emphasizes the individual's purposes for persisting at different learning activities (Meece, Glienke, & Burg, 2006). Additionally, as Pintrich (2000, p. 94) points out, current theories of goal orientation also reflect

particularly "the standards or criteria" that students "construct to evaluate their competence or success on the task." This theory is distinguished from the other social-cognitive theories (expectancy-value, attribution, selfefficacy) of motivation in that the focus of this theory is on goals that are developed in competence-based situations -either for developing or demonstrating competence- while they are mostly concerned with perceptions of ability or causal attributions of academic performance (Meece, Anderman & Anderman, 2006).

Goal orientation theory originally focused on two general orientations to achievement: mastery and performance goals (Ames, 1992; Anderman & Anderman, 1999). They are referred to by different sets of contrasting labels in the literature: learning and performance goals, task-involvement and ego-involvement goals, learning, and ability goals, and task mastery and ego-social goals (Nicholls, 1984; Ames & Archer, 1988; Wolters, Yu, & Pintrich, 1996; Dweck, 1986). Those students who pursue mastery goals focus on learning and mastering a specific task (developing competence). However, a performance or ability orientation is associated with demonstrating one's ability relative to others (demonstrating competence) (Ames, 1992). Individuals who pursue learning goals are concerned with improving their competence of the task, mastering challenging activities and developing their ability through effort (Dweck, 1986). On the other hand, individuals with a performance goal orientation have a tendency to display superiority, demonstrating current ability, and to be positively evaluated by others (Elliot & McGregor, 2001). As noted by Ames (1992), approaching a task with a performance goal orientation is associated with an emphasis on grades and extrinsic incentives rather than on intrinsic value of learning.

Most of the studies examining (e.g., Carrick, 2010; Rashidi & Javanmardi, 2012; Rowe, 2001) achievement goals and the associated motivational patterns revealed that mastery orientation is related to adaptive motivational patterns, whereas performance orientation is related to maladaptive motivational patterns (Ames, 1992; Meece, Blumenfeld & Hoyle, 1988). It is hypothesized that learning-oriented individuals have a tendency to choose challenging situations regardless of their perception of their level of ability (low or high) (Elliot & Dweck, 1988). In the same vein, Nicholls (1984) showed that those committed to learning goals prefer difficult tasks that demand high effort and repeated failure do not preclude them from striving toward their goals. Alternatively, students' endorsement of performance goal orientation is associated with avoiding challenging tasks, displaying negative effect, adopting surface-level learning strategies, and attributing their failures to low ability (Elliot & Dweck, 1988).

Similarly, literature is full of experimental and correlational studies that have documented the association of mastery goal orientation with a positive set of outcomes. For example, it has been found out that when students hold mastery goal orientation, they are more likely to be highly engaged in the activity (De La Fuente, 2004), use effective problem solving strategies (Matos, Lens & Vansteenkiste, 2007), and self-regulate their learning (Elliot & Dweck, 1988). It is also demonstrated that mastery goals are related to effort and persistent, self-efficacy beliefs (Sakiz, 2011; Wolters et al., 1996), interest and intrinsic motivation (Elliot & Church, 1997), positive emotion (Roeser, Midgley, & Urdan, 1996), and less anxiety (Wolters et al., 1996), each of which improves the chance of success.

Unlike mastery goals, the literature concerning performance goals is inconsistent. Performance goals are often found to be associated with maladaptive outcomes such as surface strategies, low task enjoyment and performance detriment (Ames, 1992; Dweck & Leggett, 1988). However, this is not always the case. A few studies have found some positive relationships between this orientation and the use of effective learning strategies and test scores (Elliot, 1999). Given these inconsistencies, researchers proposed the revision of achievement goal theory.

Several researchers, most notably Elliot and Harackiewicz (1996, cited in Wang, Liu, & Chye, 2010), suggested incorporating approach and avoidance distinction within performance goals. Finally, Elliot (1997, cited in Wang, Liu, & Chye, 2010) bifurcated performance goals into two different and distinct constructs: performance-approach and performanceavoidance goals. This trichotomous framework, then, incorporates three achievement goals: mastery goals focus on learning and developing competence. performance-approach goals concerned with are outperforming others and demonstrating high ability, and performanceavoidance goals deal with avoiding negative judgment of others, demonstration of low ability, or appearing incompetent.

It must be noted that while referring to similar assessment criteria (normative standard), performance approach and performance avoidance goals interpret competence in a different manner (Meece et al., 2006). An individual with a performance approach goal strives to look competent relative to others by outperforming them and evaluates competence favorable and as something that one values to achieve. However, an individual with a performance avoidance goal seeks to avoid looking incompetent and perceives competence negatively (Brophy, 2005). According to Elliot and Church (1997, p. 472), holding a performance-approach orientation is accompanied by "high achievement motivation, fear of failure, and high expectations of competence"; while a

performance-avoidance orientation is grounded in "fear of failure and low expectancies of competence."

Following recent advances in achievement goal theory, Elliott and McGregor (2001) argued for a further development of the trichotomous framework such that it incorporates approach-avoidance distinction to the mastery goal orientation as well. The new achievement goal framework consists of four factors: mastery approach, mastery avoidance, performance approach, and performance avoidance goal orientations. Mastery-approach goal orientation is exactly the same as mastery goal orientation mentioned earlier (Elliot, 1999; Elliot, Shell, Henry, & Maier, 2005). Mastery-avoidance goals involve avoiding misunderstanding or self-referential standards while engaging in an achievement activity (Elliot et al., 2005). According to Brophy (2005, p. 167), "students with mastery-avoidance orientations share an emphasis on mastery, but engage in the task with emphasis on avoiding mistakes, failures, or diminution of existing skills."

Until now, there are limited empirical studies regarding masteryavoidance goals. However, in the few studies that investigated masteryavoidance goals, it has been demonstrated that this orientation is unassociated with cognitive strategies, intrinsic motivation and exam performance, and positively related to test anxiety (Elliot & McGregor, 2001).

Normative goal theory assumes goal orientation consists of two distinct goals, mastery and performance, in contrast with each other (Pintrich, 2000; Roebken, 2007). That is, an individual is either performanceoriented or mastery-oriented. The very premise underlying such studies is that mastery goals yield positive outcomes, whereas performance or ego goals lead to negative results (Ames, 1992). However, contemporary researchers have doubted the exclusive nature of achievement motivation constructs suggesting that goal orientations are entirely independent. For example, Keys, Conley, Duncan, and Domina (2012) concluded that students could utilize all three goal orientations at the same time depending on the nature of the task and learning environment. In other words, they may be high in mastery orientation and high in performance orientation. Roebken (2007) argues that "the three orientations can be complementary and that it is possible for students to pursue several goals simultaneously"(p. 3). The results of these studies support the multiple connections between various goal orientations (Pintrich, 2000).

Approaches to learning can be defined as a theory that describes a qualitative aspect of learning about how students tackle their learning task and what strategies they use in their studies (Ramsden, 2003; Biggs, 1987). In the late 1970's, Marton and Saljö (1976, cited in Biggs, Kember, &

Leung, 2001) using a phenomenographic research, found that students took qualitatively different approaches to learning depending on their perceptions of the objectives of the course they were studying. Accordingly, they identified two distinct approaches to learning, namely: 'deep approach' and 'surface approach' (Ramburuth & McCormick, 2001). In surface approach the primary concern of students in studying is to commit to memory those parts of knowledge that they consider important assuming that they would be assessed based on this information (Rowe, 2001). Simply stated, "The surface approach is the intention to achieve short-term memorization of the material so that it may be reproduced" (Cuthbert, 2005, p. 238). On the other hand, deep approach is characterized by students' attempt to understand, search for meaning, integrate and connect new information to previous knowledge (Gijbels, Watering, Dochy & Bossche, 2005).

Of the utmost importance to our understanding is that memorization is not necessarily the defining characteristic of surface learning approach. Rather, memorization can be deployed into deep learning approach, as well (Biggs & Tang, 2007). Deep learners, also, use memorization and rote learning as they assume remembering is necessary at all learning processes (Lew, 2011). Furthermore, Houghton (2004) mentioned "Critical to our understanding of this principle is that we should not identify the student with a fixed approach to learning, but it is the design of learning opportunity that encourages students to adopt a particular approach" (p. 9). Finally, many researchers have attempted to make clear that personality characteristics as well as situational factors contribute to shaping students' approaches to learning (Carrick, 2010). It is generally assumed that learners' perception of the academic environment remarkably affects whether to adopt a deep approach or a surface approach (e.g., Sadlo & Richardson, 2003).

Method

Participants

The sample consisted of 80 (31 males and 49 females) junior and senior EFL students majoring in English Literature and English Translation from different Universities. Students were sampled on an open basis and based on their availability in the second semester, spring 2012. The mean age of participants was 22.51 (SD = 3.24).

Instruments

To measure students' achievement goal orientation, the Achievement Goal Questionnaire (AGQ) was used. It was devised by Elliot and Church (1997) to measure achievement goals: mastery and performance goals (performance approach and performance avoidance). The AGQ consists of 18 questions, with six items used to compute a total score for each major achievement goal factor. The students indicate their agreement or disagreement with various statements on a 5-point Likert scale. Following scoring criteria, the AGQ sub-scale scores were calculated by taking the mean of the items that make up that scale. For example, a performance-approach sub-scale score is attained by summing the six corresponding items and taking the average. In this study, the Cronbach alpha values for mastery, performance approach, and performance avoidance goals were .71, .75 and .67 respectively, which are considered as acceptable.

Revised Two-factor Study Process Ouestionnaire (R-SPO-2F) developed by Biggs, Kember, and Leung (2001) was also employed to measure learning strategies. The modified questionnaire is composed of 20 items reflecting two main scales: Deep Approach (DA) and Surface Approach (SA). Each approach consists of a motive and a related strategy component. Therefore, it consists of four subscales: deep motive, deep strategy, surface motive, and surface strategy. An example of surface strategy scale items was: "I find the best way to pass examinations is to try to remember answers to likely questions," and an example of deep strategy scale items included: "I find most new topics interesting and often spend extra time trying to obtain more information about them." Each scale contains ten-items. Respondents used a 5-point Likert scale to rate each statement, anchored with 1(strongly disagree) to 5 (strongly agree). In this study, the Cronbach alpha values calculated for deep and surface approaches to learning were .77 and .73 respectively, which are considered as acceptable. Scores can be calculated by summing up the corresponding ten items for both Deep and Surface Approaches.

Lastly, academic achievement was represented by GPA (Grade Point Average) which the students had achieved during the semesters before the questionnaires were filled out. For this purpose, through an official letter to the English Department, permission to access students' average was obtained.

Data Collection and Analysis Procedure

The data collection process took place during regular language classrooms. All the students were informed about the rational of the study and that their participation is not obligatory. Both the Achievement Goal Questionnaire and Study Process Questionnaire were administered to the students only once at a brief period. The instructions were also printed at the top of each questionnaire. Also, it was pointed out that they would not get any marks and their answers would remain confidential. This took them 15 to 20 minutes to answer the mentioned questionnaires. Finally, a letter of permission was sent and approved by the English Department to get access to students' averages.

Regarding the analysis of gathered data, a descriptive correlation research design was used in this study to examine the possible interrelationship among students' achievement goals, study strategies, and academic achievement. Achievement goals (three factors) were considered as independent variables, while study strategies (two factors) and academic achievement were regarded as dependent variables.

Results

The results of the descriptive analysis of all the variables assessed are illustrated in Table 1. The first set of analysis involves describing the preferred achievement goal orientation held by Iranian EFL learners. In the beginning, the mean scores for achievement goal orientation were computed based on the students' responses to the statements in each goal orientation subscale. With respect to mean scores indicated in Table 1, students report that they adopt mastery goals more than other goal orientations (M = 4.05) with a standard deviation of .88. The sample scored a mean of 3.73 regarding performance-approach orientation items. This indicates that the sample can be characterized as somewhat oriented toward performance-approach goals (SD = .67). On the other hand, performance-avoidance goals have received the least mean score (3.52) with a standard deviation of .61.

Table 1

Descriptive Statistics for Mastery, Performance-Approach, and Performance-Avoidance goals

	Mean	Std. Deviation
Mastery	4.05	.88
Performance-Approach	3.73	.67
Performance-Avoidance	3.52	.61
Deep Strategy	36.71	7.11
Surface Strategy	30.25	5.85
GPA	15.21	1.69

To verify the significance of the differences among the mean scores obtained from the three subscales at 95.0% level of significance, a Repeated Measures One-Way ANOVA was performed (see Table 2).

Table 2

Multivariate Tests: Achievement Goals

			Hypothesis	s Error		Partial Eta
Effect	Value	e F	df	df	Sig.	Squared
Goals Pillai's Trace	.271	14.493 ^a	2.000	78.000	.000	.271
Wilks' Lambda	.729	14.493	2.000	78.000	.000	.271
Hotelling's Trace	.372	14.493	2.000	78.000	.000	.271
Roy's Larges Root	st .372	14.493	2.000	78.000	.000	.271

A repeated measures analysis of variance indicates the differences explored regarding the means with which students reported adopting the three achievement goals. According to a Wilks' Lambda criterion [F (2, 78) = 14.49, p < .01], the differences among the mean scores are significant. The effect size (ES), as indicated by Partial Eta Squared, was used to

compute the size of the differences. As shown in table 2, the effect size (ES = .27) is relatively small.

To further identify the specific pattern of differences between means, Bonferroni pairwise comparisons were computed. As Table 3 indicates, the mean difference between mastery and performance-approach, mastery and performance avoidance, and performance-approach and performanceavoidance goals was found to be statistically significant (p < .05).

Pairwise Comparison between Achievement Goal Profiles					
(I) goals	(J) goals	Mean	Difference	Std. Error	Sig.
	-	(I-J)			-
М	PAP	.319*		.102	.007
	PAV	.533*		.099	.000
PAP	М	319 [*]		.102	.007
	PAV	$.215^{*}$.084	.038
PAV	Μ	533*		.099	.000
	PAP	215 [*]		.084	.038

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The correlational analysis (see Table 4) indicate that there exists a significant positive relationship between mastery goal orientation and using a deep approach (r (78) = .54, p < .01).In contrast, mastery orientation is not correlated with surface approach use (r = -.10). In addition, performance-approach goal orientation is positively and significantly correlated with deep approach use (r (78) = .41, p < .01), yet not correlated with surface approach (r = -.039). On the other hand, performance-avoidance goal is found to positively and significantly correlated with surface approach use (r (78) = .26, p < .05). However, there is no correlation between performance-avoidance goals and deep strategy.

Table 3

Table 4

Table 5

Correlation Analysis of Goal Orientations and Learning Approaches Orientation

	Learning Approach	Deep	Surface
Mastery	Pearson Correlation	.54**	10
	Sig. (2-tailed)	.000	.338
	Ν	80	80
Approach	Pearson Correlation	.41**	039
	Sig. (2-tailed)	.000	.732
	Ν	80	80
Avoidance	Pearson Correlation	14	.26*
	Sig. (2-tailed)	.206	.018
	Ν	80	80

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

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

Pearson product-moment correlation was run to examine the relationship between achievement goals and academic achievement (see table 5). Table 5 shows that mastery goal was not correlated with academic achievement (r = .18, p > .05). Performance-approach orientation is positively and significantly correlated with academic achievement (r = .26, p < .05; however, this correlation is weak. Furthermore, a negative correlation exists between performance-avoidance and the students' academic achievement (r = -.16, p < .05).

	Mastery	Performance- approach	Performance- avoidance
Academic achievement Sig. (2-tailed) N	.18 .104 80	.26* .018 80	16 [*] .041 80

Correlation Analysis of Goal Orientations and Academic Achievement

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

Discussion

Of primary concern in this study was to identify the dominant achievement goal orientation among Iranian EFL learners. The findings of this research showed that three achievement goals were identified among Iranian EFL learners, including mastery, performance-approach, and performanceavoidance goals. The data analysis showed that the subjects under study had a higher tendency towards mastery goals, among other goal orientations, as indicated by mean values (M = 4.05, SD = .88). Subsequently, performance-approach and performance-avoidance goal orientations were respectively the achievement goal orientations that students adopted mostly in their learning activities. The findings of this study are consistent with the results obtained by Rashidi and Javanmardi (2012) that Iranian learners have a higher tendency toward mastery goals than any other goal orientations. The students with mastery goal orientation, according to Ames and Archers (1988), focus on progress, increasing their competence, and self-improvement. They are mostly concerned with learning new things and mastering the subject rather than comparing themselves with their peers.

The results of the correlational analysis showed that those who adopted mastery goals had a greater tendency to use deep approaches. This implies that learners' perception of the goals as mastering the task may affect their realization of learning as an end in itself. Simply stated, perceiving achievement as developing new skills enhance the possibility of deep learning processing. The same pattern appears regarding the relationship between performance-approach goals and deep learning strategies. Similarly, the motive to outperform others was found to be associated with using deep approaches. In other words, the students' inclination to get high grades and perform better than others was accompanied by using deep processing strategies. With respect to performance-avoidance goals, the pattern is different. Performance-avoidance goals were related to surface strategies. Students holding these types of goals tend to demonstrate their ability in comparison to others. Thus, they use various superficial strategies such as memorizing the material which would improve their grades. This tendency to obtaining high grades might be a reflection of the type of examination and assessment systems in Iran. Overall, it can be concluded that the more engaged the students are with developing their competences, the more expected that they use deep learning approaches.

Finally, the results suggest that performance-approach goals are positively correlated with students' GPA scores, whereas performanceavoidance goals are negatively correlated with academic achievement. However, mastery goals seem not to be related to students' success. This reflects the notion that those students who adopt performance-approach goals persist longer and exert more effort in learning. This is in contrast with performance-avoidant individuals who strived not to perform worse than others. They are not concerned with poor performance and adopt ineffective strategies in learning. Mastery oriented learners were reported to just focus on personal improvement rather than demonstrating their ability. This is why they are not worry about their academic performance.

The findings of the study also bear a set of theoretical and practical pedagogical implications. The first implication is regarding the importance of individual differences in general and motivation in particular in language learning process. In other words, the present study reemphasized the key role of motivation in language learning success. Pertinent educational officials including material developers and teachers are, then, recommended to consider motivation an influential factor in language learning and prepare and make use of teaching strategies and materials which enhance learners' motivation. The other implication which could be ascribed to this study is regarding the positive and important role of goal and goal-setting in language learning. To put it another way, the present study indicated that learners who have clear goals for learning and adopt appropriate goals, they are likely to have better academic achievement compared with those who lack goals in their learning and achievement. Hence, teachers should enhance the awareness of their learners regarding the key role of goal in language learning and help them to consider appropriate goals for their learning.

Finally, regarding the limitations and recommendations of the study, the present study may also suffer from a couple of limitations which, in turn, indicate suggestions for further research. First of all, because the sampling method used in the current study was based on the availability of the participants and not the random selection way, the scope of the generalizability of its results could be limited to some extent and, as a result, need to be approached cautiously. Similar studies with more representative learners can, then, be done to provide more generalizable results. The second limitation attributed to the study is also related to the participants of the study. In other words, the low number of participants who took part in this study prevents the researcher from freely generalizing the findings obtained. As a result, interested researchers are encouraged to replicate the current study in other contexts of Iran with higher number of participants so that more valid conclusions could be made in this regard.

References

- Ames, C. (1992). Classrooms: goals, structures, and student motivation. Journal of Educational Psychology, 84, 261-271. http://dx.doi.org/10.1037//0022-0663.80.3.2601
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. Journal of Educational Psychology, 80, 260–270.
- Anderman, L. H., & Anderman, E. M. (1999). Social predictors of changes in students' achievement goal orientations. Contemporary Educational Psychology, 25, 21–37. http://dx.doi.org/10.1006/ceps.1998.0978
- Biggs, J. (1987). Student approaches to learning and studying. Melbourne: Australian Council for Educational Research.
- Biggs, J., Kember, D., & Leung (2001). The revised two-factor Study Process Questionnaire: R-SPQ-2F. British Journal of Educational Psychology, 71, 133-149. http://dx.doi.org/10.1348/000709901158433
- Biggs, J., & Tang, C. (2007). Teaching for Quality Learning at University, 3rd Ed., The Society for Research into Higher Education & Open University Press, Buckingham.
- Brophy, J. (2005). Goal theorists should move on from performance goals. Educational Psychologist, 40, 167–176. http://dx.doi.org/10.1207/s15326985ep4003_3
- Carrick, J. A. (2010). The effect of classroom and clinical learning approaches on academic achievement in associate degree nursing students. Available from: http://dspace.lib.iup.edu:8080/dspace/handle/2069/239
- Cuthbert, P. F. (2005). The student learning process: learning styles or learning approaches? Teaching in Higher Education, 10, 235–49. http://dx.doi.org/10.1080/1356251042000337972
- De La Fuente, J. (2004). Recent perspective in the study of motivation: Goal orientation theory. Electronic Journal of Research in Educational Psychology, 2(1), 35-62.
- Dweck, C. S. (1986). Motivational processes affecting learning. American Psychologist, 41 (10), 1040-1048. http://dx.doi.org/10.1037//0003-066X.41.10.1040
- Dweck, C., & Leggett. E. (1988). A social cognitive approach to motivation and personality. Psychological Review, 95, 256-273. http://dx.doi.org/10.1037//0033-295X.95.2.256

- Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. Educational Psychologist, 34, 169–189. http://dx.doi.org/10.1207/s15326985ep3403_3
- Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. Journal of Personality and Social Psychology, 72(1), 218-232. http://dx.doi.org/10.1037//0022-3514.72.1.218
- Elliot, A. J., & McGregor, H. A. (2001). A 2×2 achievement goal framework. Journal of Personality and Social Psychology, 80(3), 501-519. http://dx.doi.org/10.1037//0022-3514.80.3.501
- Elliot, A. J., Shell, M. M., Henry, K. B., & Maier M. A. (2005). Achievement goals, performance contingencies, and performance attainment: An experimental test. Journal of Educational Psychology, 97, 630–640. http://dx.doi.org/10.1037/0022-0663.97.4.630
- Elliot, E., & Dweck, C. (1988). Goals: An approach to motivation and achievement. Journal of Personality and Social Psychology, 54, 5–12. http://dx.doi.org/10.1037//0022-3514.54.1.5
- Gijbels, D., van de Watering, G., Dochy, F., & Bossche, P. (2005). The relationship between students' approaches to learning and the assessment of learning outcomes. European Journal of Psychology of Education, 20(4), 327–341. http://dx.doi.org/10.1007/BF03173560
- Houghton, W. (2004). Engineering subject centre guide: Learning and teaching theory for engineering academics. Loughborough: HEA Engineering Subject Centre. Retrieved from http://www.engsc.ac.uk/learning-and-teaching-theory-guide
- Keys, T. D., Conley, A. M., Duncan, G. J., & Domina, T. (2012). The role of goal orientations for adolescent mathematics achievement. Contemporary educational psychology, 37, 47-54. http://dx.doi.org/10.1016/j.cedpsych.2011.09.002
- Lew, T. Y. (2011). Relationship between the lecturer's approaches to teaching and students' approaches to learning. Paper presented at the Enhancing Learning: International Teaching and Learning Conference 2011, Curtin Sarawak Miri.
- Matos, L., Lens, W., & Vansteenkiste, M. (2007). Achievement goals, learning strategies and language achievement among Peruvian high school students. Psychologica Belgica, 47, 51-70.
- Meece, J. L., Anderman, E. M., & Anderman, L. H. (2006). Classroom goal structure, student motivation, and academic achievement. Annual Review of Psychology, 57, 487–503. http://dx.doi.org/10.1146/annurev.psych.56.091103.070258

- Meece, J. L., Blumenfeld, P. C., & Hoyle, R. (1988). Students' goal orientations and cognitive engagement in classroom activities. Journal of Educational Psychology, 80, 514-523. http://dx.doi.org/10.1037//0022-0663.80.4.514
- Meece, J. L., Glienke, B. B., & Burg, S. (2006). Gender and motivation. Journal of School Psychology, 44, 351 – 373. http://dx.doi.org/10.1016/j.jsp.2006.04.004
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. Psychological Review, 91(3), 328–346. http://dx.doi.org/10.1037/0033-295X.91.3.328
- Pintrich, P. R. (2000). An achievement goal theory perspective on issues in motivation terminology, theory, and research. Contemporary Educational Psychology, 25, 92 – 104. http://dx.doi.org/10.1006/ceps.1999.1017
- Ramburuth, P. & McCormick, J. (2001). Learning diversity in higher education: a comparative study of Asian international and Australian students. Higher Education, 42 (3), 333-350.
- Ramsden, P. (2003). Learning to teach in higher education. London: Routledge Falmer.
- Rashidi, N., & Javanmardi, F. (2012). The Relationship between Iranian EFL Students' Achievement Goal Orientations and Their Gender. Education, 2(1), 8-15. http://dx.doi.org/10.5923/j.edu.20120201.02
- Roebken, H. (2007). Multiple goals, satisfaction, and achievement in university undergraduate education: A student experience in the Research University (SERU) project research paper. Research and Occasional Paper Series: CSHE.2.07. Berkeley,CA: Univ. of California.
- Roeser, R., Midgley, C., & Urdan, T. (1996). Perceptions of the school psychological environment and adolescents' psychological and behavioral functioning in school. Journal of Educational Psychology, 88, 408–422. http://dx.doi.org/10.1037//0022-0663.88.3.408
- Rowe, J. W. K. (2001). Approaches to study by first year engineering students. Progress 1 Conference: Improving Student Progression and Achievement in Engineering, December 2001, Hull, UK
- Sadlo, G., & Richardson, J. T. E. (2003). Approaches to studying and perceptions of the academic environment in students following problem-based and subject-based curricula. Higher Education Research and Development, 22 (3), 253-274. http://dx.doi.org/10.1080/0729436032000145130

- Sakiz, G. (2011). Mastery and performance approach goal orientations in relation to academic self-efficacy beliefs and academic help seeking behaviors of college students in Turkey. Educational Research, 2(1), 771-778.
- Spencer, K. (2003). Approaches to learning and contemporary accounting education. Abstract from Education in a Changing Environment September 2003 Conference Proceedings.
- Wang, C. K. J., Liu, W. C., & Chye, S. (2010). Achievement Goals, Implicit Theories and Behavioral Regulation among Polytechnic Engineering Students. International Journal of Research and Review, 5, 1-17.
- Was, C. (2006). Academic achievement goal orientation: taking another look. Electronic journal of research in educational psychology, 4, 529-550.
- Wolters, C.A., & Rosenthal, H. (2000). The relation between students' motivational beliefs and their use of motivational regulation strategies. International Journal of Educational Research, 33 (7-8), 801-820. http://dx.doi.org/10.1016/S0883-0355(00)00051-3
- Wolters, C. A., Yu, S. L., & Pintrich, P. R. (1996). The relation between goal orientation and students' motivational regulation and their use of learning strategies, effort, and classroom performance. Learning and Individual Differences, 8(3), 211–238.

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