

A Comparison of Motivational Beliefs and Self-regulating Learning Strategies among Normal and Probation Students

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ABSTRACT: One of the major problems in educational systems is students' probation during their course of study. With regard to the importance of identifying factors affecting on the probation, this study was performed to determine the status of use self-regulating learning in normal and probation students of Islamic Azad University Sepidan Branch. In order to achieve this goal, 268 students were selected that included 59 probation students (39 male, 20 female) and 209 normal students (129 male, 80 female). Data was gathered by two questionnaires including demographic characteristics questionnaire and Motivated Strategies for Learning Questionnaire (Pintrich & DeGroot, 1990). Independent sample t-tests were performed to identify the presence of significant differences in the scale scores at group level. The analyses of data showed that, normal students reported significantly higher scores for cognitive and meta-cognitive strategies compared to the probation group of students. The same group also reported higher scores for, motivational beliefs, which is more of a surface strategy. But, no significant difference was found among girls and boys in motivational components and self-regulated learning strategies.

KEYWORDS: Educational decline, Probation, Self-regulating Learning strategies, Motivational Beliefs

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I. INTRODUCTION

Historically, concerns about student retention and persistence have largely been focused at the institutional level. In past decades researchers and educators have conducted many studies and experiments to determine the factors that affect (positively or negatively) student achievement. All of the research reviews support the hypothesis that student performance depends on different socio-economic, psychological, environmental factors (Horne, 2000). While these studies have examined and provided evidence for explaining student retention and persistence, one area that has not been examined in depth is the relationship between academic probation and student' motivational beliefs and self-regulating learning strategies. According to a recent national report, students drop out of college due to lack of preparation for the rigors of academic work (Renzulli, 2015). Few researchers have examined the relationship between college students' self-regulation and learning strategies and their academic achievement. There may be a number of learning strategies that could facilitate students' performance. In a recent study, Qetesh, Saadh, Kharshid & Acar (2020). Examined the relationship between self-regulation learning behavior and academic achievement among students attending the Faculty of Pharmacy during distance education due to the COVID-19 pandemic. Result that there is a strong correlation between the variables of self-efficacy and self-regulation, cognitive strategies, and academic performance of students in the exam, while there is a negative correlation between the variable of anxiety in the test and academic performance in the exam. Among the five variables, self-efficacy and self-regulation have the strongest impact on the academic performance of students who have been taught by a distance learning method due to the COVID-19 pandemic. Another recent study was carried out by Akcaoglu (2016) to explore the connection between learning strategies and self-efficacy among teacher candidates in an education faculty in Turkey. Using the Motivated Strategies for Learning Questionnaire (MSLQ), the study found that learning strategies (i.e rehearsal, organization, metacognitive self-regulation, time/study environmental, peer learning and help seeking) were significantly correlated to self-efficacy. According to the author, the results could be directed by the nature of the examination specification particularly the multiple choice questions. The multiple choice items require the teacher candidates to recap and memorize the information learnt and this has promoted the use of rehearsal and organization strategies in their learning.

Self-regulated learning is an important aspect of student academic performance in the classroom. Although there are variations in the definition of self-regulated learning, most models assume that self-regulated learners engage in the use of both cognitive and metacognitive strategies for learning as well as endorse adaptive motivational beliefs (Pintrich & De Groot, 1990; Zimmerman, 1989). Cognitive strategies include the use of various rehearsal, elaboration, and organizational strategies that help students encode, recall, and comprehend

information. Metacognitive strategies for learning include planning (i.e., setting goals), monitoring (i.e., assessing comprehension while reading), and regulating (i.e., adjusting reading rate for text difficulty) and are linked to better academic performance (e.g., Pintrich & De Groot, 1990; Zimmerman & Martinez- Pons, 1986, 1988). These cognitive and metacognitive strategies represent one aspect of self-regulated learning that will be examined in this study. There are a number of motivational beliefs that can be adaptive but three that seem particularly important are intrinsic orientation, self-efficacy, and task value. Intrinsic orientation, which involves a focus on learning and mastery, not grades or performance, has been linked to better strategy use and performance (Ames, 1992). Students' judgments of their capability to learn, self-efficacy, is also positively related to strategy use and academic performance (Schunk, 1991). Finally, task value beliefs that involve students' perceptions of the importance, utility, and interest of the task have been related to both strategy use (Pintrich & De Groot, 1990) and actual achievement (Wigfield & Eccles, 1992).

One of the major problems in educational systems is students' probation during their course of study. With regard to the importance of identifying factors affecting on the probation, this study was performed to determine the status of use self-regulating learning in normal and probation students of Islamic Azad University Sepidan Branch. A second purpose of the current study was to examine and clarify gender differences in the relations among the learning strategies.

Research Hypothesis

Based on the mentioned objectives, the research hypothesis were as following:

- 1- There is significant difference regarding self-regulating learning strategies among normal and probation students
- 2- There is significant difference regarding motivational beliefs among normal and probation students
- 3- There is significant difference regarding self-regulating learning strategies among girls and boys students
- 4- There is significant difference regarding motivational beliefs among girls and boys students

II. METHODOLOGY

The research method was a causal-comparative study that was conducted among probation and normal students in Sepidan university. 268 students were selected that included 59 probation students (39 male, 20 female) and 209 normal students (129 male, 80 female). Data was gathered by two questionnaires including demographic characteristics questionnaire and Motivated Strategies for Learning Questionnaire (Pintrich & DeGroot, 1990). This questionnaire has three motivational subscales: self-efficacy, intrinsic value and test anxiety and two cognitive scales of cognitive strategy and self-regulation

Instrument

Motivational Learning Strategies Questionnaire (MSLQ). The Motivational Strategies for Learning Questionnaire (Pintrich & DeGroot, 1990) is designed to assess students' learning and motivational strategies based on the cognitive perspective of motivation and learning and Recognizes the learner as an active information processor and considers his / her beliefs and cognitions as the most important mediators in school learning (Pintrich, Smith, Garcia and McCracchi, 1993). This scale comprises two sections: A motivational section, and a learning strategies section. The Learning Strategies Scale is taken from the learning strategies section. The motivational beliefs section includes three components: self-efficacy (for example, I am sure I can understand the concepts of the lesson), intrinsic value (for example, learning a lesson is very important to me), and test anxiety (I am anxious and disturbed during the test). The Learning Strategies section includes two components: the use of cognitive strategies (for example, when I study for an exam, I repeat important material to myself several times) and self-regulation (to make sure I understand what I have read well). I'm asking myself questions. It consists of 46 items and Students were instructed to answer the scale according to Likert's evaluation, which ranges from 1 to 5, where 1 is not applicable at all and 5 applies strongly. Researchers around the world have used it to measure student's self-regulated learning (see, for example, Wijaya & Ying (2020), Qetesh, Saadh, Kharshid, & Acar (2020), Chen, 2002; D'Apollonia, Galley, & Simpson, 2001;; Rao, Moely & Sachs, 2000). The construct validity of this scale in Iran has been established by Alborzi and Seif (2002). Ostvar and Khayer (2004) scale reliability coefficient using Cronbach's alpha coefficient for self-efficacy, internal evaluation and test anxiety 0.83, 0.73 and 0.84, respectively, as well as Cronbach's alpha coefficient of mental review, expansion, organization and Self-regulation reported 0.73, 0.68, 0.60 and 0.74 for the whole sample, respectively.

Data Analysis

Means and standard deviations of each scale were calculated at group level for both groups of students respectively. Independent sample *t*-tests were performed to identify the presence of significant differences in the scale scores at group level.

III. FINDINGS

Using t-test for independent groups, the mean scores of probation and normal students in self-regulated learning strategies and motivational beliefs were compared. The research results related to group differences in self-regulatory learning strategies (cognitive and metacognitive strategies) are shown in Table 1.

Table 1. Independent sample t test for group and self-regulating learning strategies

variables	Groups	N	M	SD	t test		
					Df	t	P
Cocognitive strategies	normal	209	29.50	14.23	266	5.65	0/001
	probation	59	27.00	17.43			
Metacognitive strategies	normal	209	25.72	13.17	266	4.78	0/001
	probation	59	22.98	15.88			

As can be seen, there is a significant difference between normal and probation students in the subscale, cognitive strategies at the level of 0.001. Accordingly, normal students on this scale have reported the use of more cognitive strategies when studying. In the subscale of metacognitive strategies, a significant difference has been observed at the level of 0.001 between normal and conditional students, and in this factor, normal students have obtained higher scores in metacognitive strategies.

The research results related to group differences in motivational beliefs are shown in Table 2. As can be seen, there is a significant difference between normal and probation students in the subscale, the intrinsic value at the level of 0.04. Accordingly, normal students have reported higher scores on this scale. In the self-efficacy subscale, a significant difference was observed at the level of 0.001 between normal and conditional students, and in this factor, normal students also obtained higher scores in self-efficacy. Also, in the subscale of test anxiety, a significant difference was observed at the level of 0.01 between normal and probation students, and in this factor, normal students obtained higher scores in test anxiety.

Table 2. Independent sample t test for group and motivational beliefs

variables	Groups	N	M	SD	t test		
					Df	t	P
Intrinsic value	normal	209	33.19	12.13	266	1.90	0/04
	probation	59	29.25	19.52			
Self-Efficacy	normal	209	33.37	12.04	266	2.44	0/001
	probation	59	27.08	12.52			
Test Anxiety	normal	209	25.65	8.87	266	2.54	0/01
	probation	59	22.15	10.78			

The results of research related to gender differences in self-regulated learning strategies (cognitive and metacognitive strategies) are shown in Tables 3. As can be seen, no significant difference was observed between male and female students in subscales, cognitive and metacognitive strategies.

Table 3. Independent sample t test for gender and self-regulating learning strategies

variables	Groups	N	M	SD	t test		
					Df	t	P
ognitive strategies	female	100	36.09	15.54	266	0/52	NS
	male	168	37.13	16.06			
Metacognitive strategies	female	100	30.56	14.79	266	01	NS
	male	168	30.59	14.15			

Also, the results of research related to gender differences in the components of motivational beliefs (Intrinsic value, self-efficacy and test anxiety) are shown in Table 4. As can be seen, there is no significant difference in motivational beliefs between male and female students in the subscale.

Table 4. Independent sample t test for gender and motivational beliefs

variables	Groups	N	M	SD	t test		
					Df	t	P
Intrinsic value	female	100	32.30	14.00	266	0/02	NS
	male	168	32.33	14.26			
Self-Efficacy	female	100	32.21	12.61	266	0/22	NS
	male	168	31.85	12.67			
Test Anxiety	female	100	24.71	9.02	266	0/23	NS
	male	168	24.98	9.67			

IV. DISCUSSION

The goal of this study was twofold. First, the study investigated group differences in motivational beliefs and cognitive learning strategies in the students Islamic Azad University Sepidan Branch .Second, it examined gender differences in the relations among learning strategies, including motivational beliefs, cognitive and metacognitive strategies. The results provide empirical evidence for the importance of considering group differences in motivational and behavioral learning strategy components in the learning context. There were highly significant group differences in the category of motivational beliefs and cognitive strategies, in which normal students showed stronger motivational beliefs and cognitive learning strategies. But normal learners reported more test anxiety than probation learners. Results suggest that educators should improve students' self-efficacy as well as control beliefs and reduce their anxiety level. For instance, educators have to convince students that they are capable of self-regulated learning and efforts can make a difference in academic achievement. In addition, educators ought to place more emphasis on learning per se and avoid being too examination oriented during the teaching and learning processes so that students' anxieties towards examination can be reduced. Specifically, educators may help probation' students become self-efficacious and self-regulated through the following methods (Gaskill & Woolfolk Hoy, 2002). Teach cognitive and metacognitive skills such as goal-setting, planning, monitoring the progress, and self-evaluation and teach specific SRL strategies to improve learning such as organizing and transforming, keeping records, attentional control, rehearsing and memorizing, and reviewing records.

According to learning strategy literature, learners can gain better grades if educators instruct them how to employ learning strategies in different situations (Pintrich & DeGroot, 1990). This implies that educators should teach and encourage students to use appropriate learning strategies and help them achieve better grades.

Similarly, this study focused on gender differences in self-regulated learning components and motivational beliefs, the results indicated that there was no statistically significant mean difference among motivational beliefs and self-regulated learning variables with respect to gender. In the other hand, In this study as an example of gender related study, one of the main results expressed that female and male student's motivational beliefs and self-regulated learning variables did not differ. These findings were not entirely surprising because they replicated many of the existing findings from the literature. Gender in many learning environment were not reported as significant variable for many years in the past (e.g. Astleitner & Steinberg, 2005, Yukselturk & Bulut, 2007). It might be stated that the gender related differences were not found in several samples and communities. In higher education, learners are mature enough and they are aware of their responsibilities.

V. CONCLUSION

The major educational implication of these results is that teaching learners how to engage in self-regulation and how to enhance their motivational beliefs could serve to increase their academic performance. Further investigations of students' motivational beliefs and self-regulated learning can be expected to help college students achieve success in their college courses.

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