




Çetin, B. (2022). The relationship between intrinsic motivation towards university and intrinsic motivation towards self-regulated learning and academic success. *International Online Journal of Education and Teaching (IOJET)*, 9(4). 1939-1949.

Received :22.06.2022
Revised version received :21.09.2022
Accepted :22.09.2022

THE RELATIONSHIP BETWEEN INTRINSIC MOTIVATION TOWARDS UNIVERSITY AND INTRINSIC MOTIVATION TOWARDS SELF-REGULATED LEARNING AND ACADEMIC SUCCESS

Research article

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The Relationship between Intrinsic Motivation towards University and Intrinsic Motivation towards Self-Regulated Learning and Academic Success

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Abstract

In this study, it was aimed to determine the level of the relationship between university students' intrinsic motivation scores towards self-regulated learning, their intrinsic motivation scores towards university, and their academic achievements. The cross-section scanning model was used in the study. The participants of the study consisted of 30 undergraduate students attending the Elementary Education program of the Faculty of Education of a university in the southeastern United States. The data of the study were collected using the AMS-C 28 developed by Vallerand et al. (1992), the SASR developed by College Version and Dugan (2007), and the "Demographic Form". No significant relationship was found between the GPAs of the university students and the total scores of the "IM to know", "IM-toward accomplishment", "IM to experience stimulation" and "SRL Intrinsic Motivation" sub-factors. A significant relationship was determined between the total scores of the sub-factors "IM to know" and "IM to experience stimulation" and "SRL intrinsic motivation". There was a significant correlation between the total scores of the "IM- toward accomplishment" and "IM to experience stimulation" sub-factors, and between the total scores of the "IM to experience stimulation" and "SRL Intrinsic Motivation" sub-factors.

Keywords: Self-regulated learning, intrinsic motivation, university students.

1. Introduction

Self-Regulated Learning (SRL)

Bandura (1986) states that there are three sub-processes in self-regulated learning: self-observation, self-judgment, and self-reaction. Most behaviors are motivated and regulated by intrinsic standards and self-evaluation responses to self-actions. Self-observation means deliberate attention to certain aspects of one's behavior (Schunk, 1998). This observation of one's self is critical in determining whether or not one can progress in an activity. As a result of this observation, when the person realizes what s/he is doing, s/he can react to this information and change her/his behavior (Pintrich & Schunk, 2002).

Self-judgment refers to comparing one's current performance with one's own goal. For example, students who find the given task easy think that they set their goals too low, and will set their goals higher next time. The belief that one is making progress towards one's goal increases self-efficacy, which in turn strengthens motivation (Schunk, 1987). Self-reaction involves giving evaluative responses to judgments about one's performance. The belief that

one is making progress towards acceptable goals increases self-efficacy, and maintains motivation along with the satisfaction of reaching the goal (Schunk, 1996).

Self-regulated learning is defined as processes in which individuals deliberately change their own reactions based on standards, including thoughts, emotions, impulses, performance, and behaviors (Baumeister & Vohs, 2016). Self-regulated learning includes cognitive, metacognitive, motivational, affective and behavioral processes that people carry out to achieve their learning goals systematically (Greene, 2018). It will not be enough to define self-regulated learning as an individualized learning style, as this learning also includes social learning forms with the help of peers, coaches and teachers (Zimmerman & Schunk, 2011).

Since students are not expected to engage in self-regulation equally in all areas, social cognitive learning theory interprets self-regulated learning as situation specific (Schunk & Zimmerman, 2003). Students with self-regulated learning skills are those who combine various self-regulation processes and task strategies with self-motivational beliefs, and can take responsibility (Cleary & Zimmerman, 2004; Van den Boom et al., 2007). Self-regulation is an important function of the executive system, which includes other voluntary and active abilities of the self, including planning and problem solving, purposeful behavior, decision making, and logical thinking (Baumeister & Bauer, 2011).

One of the main purposes of education is to teach students how to learn. Students can achieve this goal when they can self-regulate their learning (Boekaerts, 1997). It is thought that in order for students to have lifelong learning skills, they should have intrinsic motivation and self-regulated learning skills. Self-regulated learning has an important place in lifelong learning (Boekaerts, 1997; Zimmerman, 2002; Dent & Koenka, 2016).

In the light of technological developments, with the increase in the ease of accessing information of students studying at the university, it has become necessary to provide students with self-regulated learning skills and to increase their intrinsic motivation towards the university. Apart from this, it is considered to be important to determine the level of the relationship between the general academic achievement of university students and their intrinsic motivation scores for self-regulated learning and their intrinsic motivation scores for university.

In the literature, self-regulated learning has a relationship with academic performance, academic motivation and learning (Ablard & Lipschultz, 1998; Alexander & Judy, 1988; Pintrich, 2000; Zimmerman & Bandura, 1994; Zimmerman & Kitsantas, 2005; Zimmerman, 2015). According to Bandura (1999), self-regulation has also become an important factor in professional life. Self-regulated learning skills do not only guide students' own learning during school education, but also make a great contribution to improving themselves and their current knowledge after leaving school (Boekaerts, 1999). It was stated in a research finding that self-regulated learning played an important role in the success of students both inside and outside the classroom (Greene, 2018).

Zimmerman (2002) states that self-regulation processes are teachable and can lead to an increase in students' motivation and success. Students who approach their academic studies with confidence and have self-regulated learning skills work harder, handle assignments more calmly and with less panic, overcome obstacles more easily, and recover more easily after failures (Pajares, 2002).

Intrinsic Motivation

The term motivation essentially refers to any general impulse or tendency to do something (Baumeister & Vohs, 2007). Motivation is used to explain the initiation of the behavior, the direction of the behavior, the intensity of the behavior, and the actual achievement (Schunk, 1991; Pintrich, 2003).

Emotions and motivation are the important components of self-regulation at all stages of planning, performing and evaluating actions (Pekrun, 2021). Motivation is especially effective in replacing willpower. Even if willpower, in other words, self-regulation power has been depleted by previous actions, if motivation is high, a person can effectively self-regulate (Baumeister & Vohs, 2007).

In self-determination theory (SDT, self-determination theory), needs such as autonomy, competence and relatedness are shown as indicators of basic psychological needs (Deci & Ryan, 1985, Deci & Ryan, 2000; Ryan & Deci, 2007). The need for autonomy refers to the experience in which behavior is owned, selectively animated, and reflectively self-affirmed (Niemiec et al., 2010).

Competence means feeling effective in one's ongoing interactions with the social environment and experiencing opportunities to apply and express one's capacity. The need for competence drives people to seek challenges that are most appropriate for their capacities, and to maintain, develop and persistently attempt these skills and capacities through activity. Competence is not an acquired skill or ability, but rather a feeling of confidence and effectiveness felt in an action (Ryan & Deci, 2002). Relatedness refers to feeling connected to others, caring for and being cared for by others, and having a sense of belonging to both other individuals and the community (Baumeister & Leary, 1995; Ryan, 1995). Hsu et al., (2019) determined that the satisfaction of basic psychological needs increased motivation in self-regulated learning and was associated with higher perceived knowledge transfer and course goal achievement in online courses.

Self-determination theory proposes that both competence and autonomy experiences are necessary conditions for maintaining and increasing intrinsic motivation (Deci & Ryan, 1985; Ryan & Deci, 2007). Self-determination theory for students is autonomous self-regulation in which they can choose, initiate and maintain learning tasks that are interesting or personally important to them (Zimmerman, 2011).

In this study, only intrinsic motivation was considered because it was suitable for the subject of the research. Intrinsic motivation is a natural process that arises from students' basic psychological needs, allowing students to form their own intentions (Deci & Ryan, 1985). One source of students' autonomous self-regulation is intrinsic motivation. The idea of facilitating intrinsic motivation in the classroom is based on the idea that learning can be interesting and fun. Intrinsic motivation allows students to create their own intentions (Reeve et al., 2008). Self-determination theory proposes that intrinsic motivational processes can develop in people most when the need to be related is supported, that is, when people feel a sense of commitment and belonging (Ryan & Deci, 2007).

Intrinsic motivation is related to a person's interest in a task or activity, enjoyment, and intrinsic satisfaction. Research findings related to that intrinsic motivation is an important factor that satisfies self-regulated learning have been determined (Zimmerman & Schunk,



2008). Self-regulated learning requires the use of cognitive skills, and intrinsic motivation is part of the self-regulated learning process (Bandura, 1997; Zimmerman & Bandura, 1994; Zimmerman & Martinez-Pons, 1990).

In the literature, there has not been enough research on university students' GPAs, self-regulated learning skills, and intrinsic motivation towards university. This study was conducted since it was thought that it would fill the gap in this field as an original and up-to-date study in the literature. Is there a relationship between university students' intrinsic motivation scores for self-regulated learning, their intrinsic motivation scores for university, and academic success?

2. Method

2.1. Focus of the Study:

In this study, the explanatory design, one of the correlational designs, was used as it was investigated whether there was a correlation between university students' intrinsic motivation scores for self-regulated learning, their intrinsic motivation scores for the university, and their academic achievements. Apart from this, it was thought that the most appropriate design used to achieve the general purpose of the research and to answer the question in the sub-problem was the explanatory design.

2.2. Participants:

The participants of this study consisted of a total of 30 volunteer students (20 male and 10 female students) attending the Elementary Education program of the Faculty of Education of a university located in the southeastern United States.

Table 1.
Descriptive Statistics of the Participants

Variables		N
Gender	Female	22
	Man	8
Year	Freshman	1
	Sophomore	2
	Junior	14
	Senior	13

2.3 Data Collection

Self-regulated learning perception scale (SASR): It consists of 6 factors and 63 items developed by Dugan (2007). It is a 6-point Likert type scale ranging from Strongly Disagree and Strongly Agree. In this study, the sub-factor "Intrinsic Motivation" (10 items) was used. Cronbach's alpha coefficient values for the sub-factors of the scale range from 0.80 to 0.88 (Dugan, 2007; Andrade & Dugan, 2011).

Academic Motivation Scale (AMS-C 28) College Version: Developed by Vallerand et al (1992), this scale has 28 items and 7 sub-factors. The sub-factors of this scale, intrinsic motivation to know (IM to know), intrinsic motivation toward accomplishments (IM to accomplish things), and intrinsic motivation to experience stimulation (IM to experience stimulation) were used in this study. The scores obtained from the sub-factors range from 4 to 28. There is no reverse scored item in the scale. The reliability coefficients of the sub-factors

range from 0.72 to 0.78 (Vallerand et al., 1992)

Grade point average (GPA): It is the average of the grades of all courses of university students from the first semester to the seventh semester.

Ethics committee approval was obtained to conduct this study. The data of the study were collected with the “Intrinsic Motivation for Learning” sub-factor of the “Self-regulated learning perception scale (SASR) scale, the sub-factors of the AMS-C 28 scale, and the “Demographic Form”. The data were collected with the participation of volunteer students studying at a university in the southeastern United States in the spring semester of 2016-2017 academic year.

The arithmetic mean of the total scores obtained from the sub-factors of the AMS-C 28 and SASR scales was analyzed by the Shapiro-Wilk technique using the SPSS 26.00 statistical program. Since the distribution was not normally distributed as a result of the analysis, the Spearman Rank Differences Correlation Coefficient technique, which is one of the non-parametric techniques, was used.

3. Findings

In this section, the correlation results of the relationship between the university students' intrinsic motivation scores for self-regulated learning, their intrinsic motivation scores for university, and their academic achievement are given.

Table 2. Intrinsic motivation towards university, intrinsic motivation towards self-regulated learning, and GPA

Variables	1	2	3	4	5
1 GPA	1,000	,089	,252	,306	,192
2 IM to know	,089	1,000	,641**	,544**	,485**
3 IM- toward accomplishment	,252	,641**	1,000	,589**	,313
4 IM to experience stimulation	,306	,544**	,559**	1,000	,502**
5 SRL Intrinsic Motivation	,192	,485**	,313	,502**	1,000

* $p < .05$

** $p < .01$

According to Table 2, no significant relationship was found between the GPAs of the university students and the “IM to know” sub-factor scores [$r = .089$ $p > 0.05$], between the “IM to accomplishment” sub-factor scores [$r = .252$ $p > 0.05$], between the “IM to experience stimulation” sub-factor scores [$r = .306$ $p > 0.05$], and between the “SRL intrinsic Motivation” sub-factor scores [$r = .192$ $p > 0.05$].

A significant correlation was found between the “IM to know”, “intrinsic motivation to experience stimulation” and “IM to experience stimulation” sub-factor scores [$r = .544$ $p < 0.01$]; between the “self-regulated learning (SRL) intrinsic motivation” sub-factor scores [$r = .485$ $p < 0.01$]; and between the “IM- toward accomplishment” sub-factor scores [$r = .641$ $p < 0.01$].

A significant correlation was found between the “IM- toward accomplishment” and “IM to experience stimulation” sub-factor scores [$r = .589$ $p < 0.01$] and between the “IM to experience stimulation” and “SRL Intrinsic Motivation” sub-factor scores [$r = .502$ $p < 0.01$].

4. Conclusion, Discussion and Recommendations

In this study, it was aimed to determine whether there was a relationship between university students' intrinsic motivation scores for self-regulated learning, intrinsic motivation scores for university, and academic achievement.

No significant relationship was found between the GPAs of the students and the total scores of the sub-factors "IM to know", "IM to accomplishment", "IM to experience stimulation" and "SRL intrinsic Motivation". Consistent with the research finding supporting the results reached in this study, Çetin (2015) did not find a significant relationship between the GPAs of university students and their academic motivation scores.

Contrary to this finding, Meriac (2015) determined a significant relationship between the intrinsic motivation scores of university students and their GPAs. Çetin (2017) determined that there was a negative relationship between self-regulated learning and GPA. Clark et al., (2014) found that the intrinsic motivation of first-year university students indirectly affected their knowing sub-factor scores and grade point averages. Bilgili and Keklik (2022) determined a highly significant relationship between academic self-regulation and academic motivation. Hector McGhee (2010) found a low correlation between associate degree students' self-regulated learning and academic achievement.

In this study, a significant relationship was found between the total scores of the "IM to know" and "IM to experience stimulation" sub-factors and between the total scores of the "IM to know" and "SRL intrinsic motivation" sub-factors. It was determined that there was a significant relationship between the total scores of the "IM- toward accomplishment" and "IM to experience stimulation" sub-factors and between the total scores of the "IM to experience stimulation" and "SRL Intrinsic Motivation" sub-factors.

At the beginning of the research, it was expected that the academic success of university students who had high intrinsic motivation towards self-regulated learning and high intrinsic motivation towards university would be high. However, when the results obtained from the sample in this study were taken as reference, it was determined that the students' intrinsic motivation scores for self-regulated learning were not significantly related to their GPAs. In other words, as these students' intrinsic motivation towards self-regulated learning and intrinsic motivation towards university increased, their GPAs did not increase. As a result, in this study, it was determined that the university students' intrinsic motivation scores for self-regulated learning and intrinsic motivation scores for university did not have a significant effect on their GPAs. Based on the findings of this research, the following recommendations were made:

1) Research can be conducted with different sample groups on whether there is a relationship between university students' intrinsic motivation scores for university, their intrinsic motivation scores for self-regulated learning, and their academic achievement.

2) Studies on the intrinsic motivation scores of university students towards self-regulated learning based on online measurement methods can be planned.

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