

Predicting Students' Adjustment considering Basic Psychological Needs and Achievement Goals

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Abstract

The objective of this study was to examine the relationship between basic psychological needs and achievement goals and students' adjustment. The research method was correlation, and the study's population included all students of Kharzmi University. The sample consisted of 200 students (i.e., 100 females and 100 males) who were selected through convenience sampling method. The instrument included Basic Psychological Needs scale (Guardia, Deci & Ryan, 2000), Midgley's Goal Orientations scale (GOS) (1998) and Farahbkhsh's College Adjustment scale (CAS). The data were analyzed using descriptive and inferential statistics, including Pearson correlation coefficient, and multiple linear regression. The result showed that there were significant positive relationships between the psychological needs, autonomy, competence and social, academic, emotional adjustment and self-discovery. Moreover, there were significant positive relationships between mastery goal achievement, social, academic and emotional adjustment, attachment to the field of study or the university and self-discovery. In addition, there was a positive relationship between approach-performance achievement and attachment to the field and the university. The results also showed that none of the dimensions of psychological needs and achievement goals could explain the students' adjustment.

Keywords: Basic psychological needs, Achievement Goals, Adjustment, Students

Introduction

Moving from high school to higher education is a major life change for many young people. Entering university is an opportunity to learn more and grow mentally, but at the same time, it is a source of stress for some individuals; it causes them to have maladaptive reactions. Research shows that students experience a variety of psychosomatic reactions in these conditions (Friedlander, Reid & Shupak, 2007). At university, academic demands increase, and new social relationships are established. However, students are often uncertain regarding their ability to cope with these demands. Stressful factors and transfer-related challenges may lead to decreased academic performance, increased psychological distress, and ultimately reduced adjustment (Salami, 2011).

Adjustment is a psychological process associated with adapting to life changes and managing problems throughout life (Cliniciu & Cazan, 2014). Adjustment to the university is also a dynamic process based on the students' interaction with the university context. Students' adjustment is related to their academic achievement, skills development, habit formation, happiness creation, and improved mental health (Yüksel & Öz, 2018). According to Baker and Siryk (1989), students' adjustment includes academic adjustment, social adjustment, personal-emotional adjustment, and institutional attachment.

Academic adjustment refers to a positive attitude towards setting educational goals, completing educational conditions, and having effective efforts to deal with these conditions in the academic context (Ratcliffe, 1991). Moreover, academic adjustment deals with adapting to the university context, professors, classmates, study materials and course content as well as being interested in studying and paying attention to the lessons. Academic adjustment also refers to the satisfaction with the university and the activities such as planning, participating in discussions, and asking questions in the class, and the adequacy and the competence in performing the academic activities (Anderson, Guan & Koc, 2016; Liran, & Miller, 2019).

Furthermore, social adjustment refers to the level of students' participation in social and group activities in the university and their interpersonal relationships with classmates, professors, staff, and other groups (Lee, Wang, & Chen, 2019). Emotional adjustment includes the symptoms and the signs of mental distress, such as feelings of sadness, anxiety, insomnia, or physical pain. Institutional adjustment refers to the level of interest and commitment of the individuals to the university or college, professors, field of study and classmates. Emotional adjustment includes the degree to which an individual enjoys being in the college, his mental obsession concerning leaving the college, being away from college and moving from his college or university to other educational settings (two different definitions) (Ayuningtyas, Hartati, & Sumadi, 2019).

Achievement goal orientation theory is one of the newest approaches to the field of motivational psychology in the last three decades. This theory is mainly the result of the efforts of psychologists working in the fields of motivation, growth, social psychology, and educational psychology (Ames, 1992). Achievement theory is a socio-cognitive

framework for understanding the learners' motivation, decision-making process, and behaviors in achieving success. From a conceptual point of view, achievement goals refer to the intellectual patterns of foresight which point out a goal for performing a task or an activity (Viorel, Codruta, & Viorel, 2015; Duchesne & Larose, 2018).

To clarify the achievement goals, researchers initially emphasized the two aspects of mastery and performance (Dweck, 2000). However, today, research focuses on the three goal orientations of mastery, performance-approach, and performance-avoidance (Elliot & McGregor, 2001). Individuals with mastery goal orientation strive to master the task, overcome the challenges, or increase their level of competence (Wang, Biddle, & Elliot, 2007). Individuals with performance-approach goals focus on demonstrating competency and making desirable judgments, while individuals with performance-avoidance goals focus on avoiding showing the lack of competence and desirable judgments (Gonida, Voulala, & Kiosseoglou, 2009).

The achievement goals represent the individuals' orientation to work, their position and their overall focus; they are not limited to a specific task (Pintrich, Conley, & Kempler, 2003). Deci and Ryan (1985) presented three types of causal orientation: the orientation of independence (i.e., the regulation of behaviors based on personal desires and values), control orientation (i.e., the regulation of behaviors based on external controls or commands), and non-personal orientation (i.e., the experience of acting beyond one's control).

Self-determination theory is one of the motivational theories which considers the three basic needs of human beings as autonomy, competence and relatedness (Onken, 2004, cited in Mancini, 2008). Autonomy refers to the individual's need for a sense of choice and self-initiation in performing actions and tasks (Deci, La Guardia, Moller, Scheiner & Ryan, 2006). Competence is the need to be effective in the interaction with the environment, to show a desire to use talents and skills, and to pursue tasks which are in line with the abilities (Deci & Ryan, 2017). The need for relatedness refers to the desire to be accepted as a person worthy of respect (Baumeister & Leary, 1995).

Research has shown that satisfying these needs and focusing on intrinsic motivation are positively correlated with high self-esteem. Internal motivation refers to the innate desire to pursue news and challenges, to expand and practice one's capacities, to discover, and to learn. Such motivation reflects the highest human capacity, the need for exploration, the curiosity, the expression of interest, and the pursuit of mastery. Self-determination theory assumes that as human's basic needs are met, human beings will grow, achieve goals, and feel more comfortable. In this theory, all human beings are inherently inclined to fulfill basic needs, and the society would support them, to some extent, in fulfilling the basic needs (Deci & Ryan, 2002).

In addition, research has shown that individuals' performance and well-being at work and school, and their improvement and maintenance of treatment and psychotherapy depend, to a large extent, on whether their basic human needs have been met (Deci, & Ryan, 2017). Hayamizu (1997) used a self-regulatory questionnaire to estimate the motivation of high school students. Findings showed that different forms of autonomy were associated with positive coping, while its controlled form was associated with maladaptive coping. Schancke (2008) described two types of goal

orientation: mastery goals and performance goals. Mastery goals refer to learning by focusing on autonomous standards, creating new skills, and striving to achieve challenging goals. Performance goals focus on one's abilities compared to those of others. Mastery orientation focuses on tasks and skills acquisition; it affects intrinsic motivation. However, performance orientation focuses on self-efficacy; it follows less challenging goals (Alt & Geiger, 2012).

With regard to the negative aspects of the orientations, Midgley and Urdan (2001) showed that performance goal orientation is positively related to the levels of students' self-efficacy; however, self-efficacy is not related to mastery goal orientation. The extensive investigation of the research studies which have examined the relationship between performance-approach goals and motivational and cognitive variables showed that performance-approach goals are positively related to hard working, effort and perseverance in performing tasks in order to remember, review and recall content, and to get a high score on the exam (Midgley, Arunkumar & Urdan, 1996). Elliott and Thrash (2002) also supported the positive relationship between performance-approach goals and surface processing strategies. Moreover, mastery goals are a positive predictor of pleasure and a negative predictor of fatigue and anger. While performance-avoidance goals are the positive predictor of anxiety, frustration, shame, and anger (Pekrun, Elliot, & Maier, 2009); performance-avoidance goals are associated with negative emotions, low progress, and depression (Sideridis, 2005).

Research has shown that the theory of basic psychological needs and the theory of achievement goals are very useful in explaining the students' adjustment. However, little is known about how these theories are related. Therefore, conducting research in this field is important. Accordingly, the objective of the present study is to investigate the relationship between the basic psychological needs and the achievement goals and the students' adjustment. The questions of the present study are raised as follows: 1. Is there any relationship between the components of basic psychological needs and the dimensions of adjustment? 2. Is there any relationship between the components of achievement goals and the dimensions of adjustment? 3. To what extent can each of the components of basic psychological needs explain the dimensions of adjustment? 4. To what extent can each of the components of achievement goals explain the dimensions of adjustment?

Methods

The present study is applied in terms of objective, and correlational in terms of data collection method. All students of Kharazmi University constituted the statistical population of the study in 2013. The sample consisted of 200 students (i.e., 100 girls and 100 boys) who were selected through convenience sampling method. The age mean and the mean of the students' academic performance were 21.5 and 15.72, respectively. The statistical analyses were conducted using the SPSS 25, statistical package for Windows, with the significance level being .05 in all cases. In order to analyze the correlation between research variables using Pearson product moment correlation coefficient. Finally, multiple linear regression analysis was conducted to identify the

predictor variables of adjustment. In the present study, ethical considerations, including the observance of scientific honesty and trustworthiness, conscious consent to participate in the research, respect for the anonymity of the questionnaires and the anonymity of the participants and keeping their information confidential have been observed.

Research instruments are followed:

Basic Psychological Needs Scale: This 21-item scale was developed by Deci and Ryan (2000); it estimates the satisfaction of the three basic psychological needs of relatedness, competence and autonomy through a 7-point Likert scale (from completely agree to completely disagree). Deci and Ryan (2000) supported the validity of the scale, and reported the reliability estimated through Cronbach's alpha coefficient as 0.92.

Goal Orientations Scale (GOS): This scale was developed by Midgley, et al. (1998); it includes 18 items and three subscales of mastery, approach and avoidance goals. The answers to the questions are based on a 7-point Likert scale. Choosing number one indicates that the issue does not apply to the participant at all, and choosing number seven means that the issue applies to the participant. The validity coefficients of the mastery, approach and avoidance goal orientation subscales (Cronbach's alpha coefficients) are reported to be between 0.70 and 0.84.

College Adjustment Scale (CAS): This scale was developed by Farahbakhsh (2011) to assess the students' adjustment to Iranian culture. It includes 97 items and five subscales of social adjustment, academic adjustment, attachment to the field of study and university, emotional adjustment and purposefulness. Its content validity was confirmed by professors of psychology and counseling. Then, it was administered to 773 students of Isfahan University of Medical Sciences and a number of other students of Isfahan's universities along with the Goldberg's General Health Questionnaire. The correlation between the total scale and Goldberg's General Health Questionnaire was -0.58, and the correlation between other subscales were between -0.07 to -0.43, which indicates the validity of the scale. The internal reliability of the whole scale was 0.94 and that of the subtests were between 0.73 and 0.81. In the present study, the reliability of the scale estimated through Cronbach's alpha was 0.73.

Results

The first research question: Is there any relationship between the components of basic psychological needs and the dimensions of adjustment?

Table 1. Means, standard deviations, alphas and bivariate correlations between psychological needs and adjustment

Variables	1	2	3	4	5	6	7	8	9	10
1.A	1									
2.C	.33**	1								
3.R	.62**	.46**	1							
4.TPN	.80**	.75**	.86**	1						
5.AFSU	.13	.08	.13	.14*	1					
6.AA	.15*	.02	.17*	.14*	.45**	1				

7. PSD	-.37**	-.19**	-.30**	-.35**	.018	.08	1			
8.SA	.17*	.20**	.21**	.24**	.30**	.25**	.10	1		
9.EA	-.47**	-.14*	-.40**	-.41**	-.04	.004	.74**	.11	1	
10.TA	-.16*	-.03	-.09	-.11	.55**	.55**	.71**	.53**	.64**	1
M	33.95	29.30	40.04	34.43	62.22	55.25	38.85	40.52	24.51	44.27
SD	6.60	7.22	6.91	5.57	7.50	6.05	8.79	6.01	6.75	4.26

Note. * $p < .05$; ** $p < .01$. A: Autonomy. C: Competence. R: Relatedness. TPN: The total score of psychological needs. AFSU: Attachment to the field of study and university. AA: Academic adjustment. PSD: Purposefulness and self-discovery. SA: Social adjustment. EA: Emotional adjustment. TA: The total score of adjustment

The results of the correlation between the scores of psychological needs and the dimensions of adjustment are shown in Table 1. According to this table, there is a positive and significant relationship between the overall score of psychological needs and the components of autonomy, competence and relatedness with social, academic, emotional adjustments and purposefulness and self-discovery. However, there is no significant relationship between autonomy, competence and relatedness with the dimensions of basic psychological needs and attachment to the field of study and university.

The second research question: Is there any relationship between the components of achievement goals and the dimensions of adjustment?

Table 2. Means, standard deviations, alphas and bivariate correlations between achievement goals and adjustment

Variables	1	2	3	4	5	6	7	8	9
1.M	1								
2.PA	.28**	1							
3.PAE	.09	.34**	1						
4.AFSU	.16*	.15*	.005	1					
5.AA	.31**	.12	-.022	.45**	1				
6. PSD	-.20**	-.11	-.002	.01	.08	1			
7.SA	.24**	.12	.002	.30**	.25**	.10	1		
8.EA	-.21**	-.15*	-.005	-.04	.004	.74**	.11	1	
9.TA	.06	.03	-.006	.55**	.55**	.71**	.53**	.64**	1
M	31.76	30.65	26.18	62.22	55.25	38.85	40.52	24.51	44.27
SD	8.06	7.69	9.97	7.50	6.05	8.79	6.01	6.75	4.26

Note. * $p < .05$; ** $p < .01$. M: Mastery. PA: Performance-approach. PAE: Performance-avoidance. AFSU: Attachment to the field of study and university. AA: Academic adjustment. PSD: Purposefulness and self-discovery. SA: Social adjustment. EA: Emotional adjustment. TA: The total score of adjustment

The results of the correlation between the achievement goals and the adjustment dimensions are presented in Table 2. According to this table there is a positive and significant correlation between the achievement goal of mastery, social, academic, emotional adjustments, attachment to the field of study and university, and purposefulness and self-discovery. Furthermore, there is a positive and significant relationship between performance-approach development goal and attachment to the field of study and university. However, there is no significant relationship between the

achievement goal of performance-approach and social, academic and emotional adjustments and purposefulness and self-discovery. Moreover, there is no significant relationship between the goal of performance-avoidance and social, academic and emotional adjustments, attachment to the field of study and university, and purposefulness and self-discovery.

Table 3. Predictive basic psychological needs for adjustment dimensions

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	47.53	1.90	-	24.90	.000	43.77	51.30
A	-.11	.10	-.177	-1.09	.27	-.32	.09
C	.01	.08	.023	.15	.87	-.16	.18
TPN	.007	.17	.009	.03	.97	-.34	.35

Note. * $p < .05$; ** $p < .01$. $F=1.84$ * $R^2=.03$; A: Autonomy. C: Competence. R: Relatedness

The results of Table 4 show that the none of the dimensions of psychological needs could explain student adjustment.

Table 4. Predictive achievement goals for adjustment dimensions

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	43.14	1.58		27.19	.000	40.01	46.27
A	.03	.09	.05	.77	.43	-.04	.10
C	.01	.04	.02	.27	.78	-.07	.09
TPN	-.008	.03	-.01	-.25	.79	-.07	.05

Note. * $p < .05$; ** $p < .01$. $F=.26$ * $R^2=.066$; Mastery. PA: Performance-approach. PAE: Performance-avoidance

The results of Table 4 show that none of the dimensions of achievement goals could explain student adjustment.

Discussion

Students' adjustment has always been considered by academic and disciplinary officials as well as university counselors. The objective of this study was to investigate the relationship between basic psychological needs and achievement goals and the students' adjustment. Correlation and stepwise regression methods were used to investigate the relationship between the variables. Regarding the first question of the study (i.e., Is there any relationship between the components of basic psychological needs and

adjustment dimensions?), it was found that there is a positive and significant relation between academic and emotional adjustments and purposefulness and self-discovery; however, there is no significant relationship between the dimensions of basic psychological needs and attachment to the field of study and university. Despite the significance of these relationships, it was the component of autonomy which showed the strongest relationship with emotional adjustment. In other words, a higher score on autonomy indicates a higher emotional adjustment.

The findings of this study are consistent with those of Curelaru, Muntele-Hendres, Diac and Duca (2020), Raiziene, Gabrielaviciute and Garkcija (2017) and Sorić, Penezić & Burić (2017). They argue that mastery goals are related to the adjustment dimensions. Moreover, the students who do the assignments with the goals of learning, understanding, and achievement will demonstrate emotional, behavioral, and cognitive adjustments. The lack of relationship between performance-approach goals and social, academic, emotional adjustments and purposefulness and self-discovery are in line with the findings of Pekrun, Elliot & Maier, (2009) and Midgley, Arunkumar & Urdan (1996) who acknowledged that approach goals are associated with perseverance, high scores on exams, and the senses of pride and hope.

Furthermore, the findings concerning the second research question (i.e., Is there any relationship between the components of achievement goals and adjustments dimensions?) showed that there is a positive and significant relationship between mastery and the adjustment dimensions (i.e., social, academic and emotional adjustments, attachment to the field of study and university, and purposefulness and self-discovery). In other words, changes related to the adjustment dimensions can be predicted by referring to the mastery and performance-approach components. However, there is no significant relationship between performance-approach achievement goal and social, academic and emotional adjustments and purposefulness and self-discovery. In addition, there is no significant relationship between performance-avoidance achievement goal and social, academic and emotional adjustments, attachment to the field of study and the university, and purposefulness and self-discovery. In other words, these components could not predict the adjustment dimensions. The findings of this study are in line with those of Soric, Penezic and Buric (2017), Pahljina-Reinić and Kukić (2015) and Alt and Geiger (2012), which argued that mastery goals are related to different adjustment dimensions, and the students who do the assignments with the goals of learning, understanding, and achievement will demonstrate adaptive emotional, behavioral, and cognitive outcomes. Rand (2009) explained that those with higher levels of optimism are more likely to have a general approach to achieve their goals.

Conclusion

According to the findings of this study, it can be stated that students can benefit from adjustment if they accept the mastery achievement goals or if the educational context encourage them to choose this type of goal. It is important to note that the present study just examined the role of basic psychological needs and achievement goals in students' adjustment. Therefore, the results are just important in terms of identifying the

descriptors of adjustment based on basic psychological needs and achievement goals. This research was funded by personal expense and there is no conflict of interest in this study. Because research has been done on students, modified results in other groups are done with caution. Suggests that in future research, the subject of research in the field of segregation and educational levels for students be approached.

Disclosure Statements

The authors of this study declared no conflicts of interest

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