

**The Role of Psychological Needs in Forecasting the Goal Orientation and Mental Health of Students in Distance Education System**

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**Abstract**

The purpose of this study was to determine the predictive power of goal orientation and mental health according to psychological needs of students in distance education System in the academic year of 2016-2017. The statistical population of the study was 1471 students in distance education system among which, by using Cochran formula, 295 individuals were selected as participants through simple random sampling method. The research instruments consisted of three questionnaires measuring goal orientation, psychological needs, and mental health variables. The results show that the components of psychological needs (autonomy, competence, and interactions) have predictive power of goal orientation and mental health. In conclusion, it is necessary to pay attention to the components of psychological needs (autonomy and independence, competency and interactions) in students' educational environments in order to reduce stress levels, to create relaxation and strengthen the targeting. Although, in modern teaching methods, the emphasis is placed on students' autonomy and independence, the use of combined teaching methods with regard to the benefits of communicating as well as paying attention to students' autonomy is a good way of enabling university students to have mental health and transition goals.

**Keywords**

Goal Orientation, Psychological Needs, Mental Health, Distance Education System, Students.

**Introduction**

The explanatory purpose orientation is the motive on which the goal is pursued and emphasizes on the intention of individuals to progress in their assignments (1). The goal orientation is an integrated model of beliefs that guides students to an approach and makes them respond to assignments, improvement, and situations in different ways (2). In other words, the goal orientation involves the goal that a student adopts in different situations of progress, considering his or her abilities in one or a set of activities (3). Since the national needs of each society is to cultivate students with desirable level of cognitive functions in order to have a positive impact on the future performance of students, it is necessary to identify the various levels of psychological needs and mental health among students and to determine its relation to the goal orientation. According to the psychological texts, the reasons and objectives of the students for the pursuit of educational activities are of great importance (1). Without considering the reasons and goals of the students, we cannot lead them to effective learning, which is one of the main concerns of each educational system. The theory of goal orientation or the goal of progress with a cognitive-social approach is one of the most useful theories that consider the notion of goal orientation as the most fundamental motivational concept (1).

The structure of progress aim or goal orientation is the cognitive representations of what people are trying to do or what they want to achieve (1). Elliot and McGregor (2001) introduce

a new perspective on goal orientation and believe that the main concept of goal orientation is "competence". In this theory, the goal orientation framework is distinct from each other based on two aspects, one is based on how competence is defined, and the other on how competence is valued (4). Our behavior is generally prompted by the desire to achieve a certain goal; in fact, each behavior is a series of activities, and to predict ones behavior, his/her motives or needs should be identified first. The type of goal that we choose determines the amount of motivation we have to achieve that goal. Ames (1992) identifies the goal orientation as a coherent model of individual beliefs that make it possible for the person to orientate to different ways, work in that field, and ultimately to provide an answer (1).

Essential psychological needs are considered as an incentive to assist active engagement with the environment, healthy psychological performance, skills development and healthy growth (5). These needs that exist innately in all human beings include the need for autonomy, competence, and communication (6). The need for autonomy is the need for self-control and the sense of choice in starting, maintaining, and setting up activities. Self-determination occurs when people feel that they are the cause of their behavior. Competency is the need to be effective in interacting with the environment, utilizing talents and skills, pursuing optimal challenges or assignments that are compatible with the level of ability of the individual, and mastering the challenges. The need for attachment is the need to establish emotional attachments and relations to others, and this need expresses the desire to emotional relevance and engagement in sincere relationships. The goal orientation of students means that to what extent the students are able to pursue their goals in a fully voluntary and personal manner, to what extent they feel competent in choosing and pursuing their goals, and to what extent they can maintain their positive relationship in this process. In general, human beings are naturally willing to pursue goals they make voluntarily and match their inner needs. The components of psychological needs that have been considered in this research are: the need for independence that is the need for self-control and having a sense of choice in starting, maintaining, and setting up activities. Autonomy happens when people become aware that they are the cause of their behavior, that is, they feel that they choose an activity with their own will and they can behave in accordance with their own personal criteria (7).

The need to competence is the need to be effective in interacting with the environment, utilizing the talents and skills, pursuing optimal challenges or assignments that are compatible with individual's ability level, and mastering the challenges. The competency to pursue the optimal challenges and spending effort to master them provide innate motivation (7). The need to attachment refers to absorbing attention and intimacy in interacting with others and gaining a general sense of affiliation (7). It is necessary to mention that satisfying basic psychological needs leads to increased mental health and if the barrier is created, it reduces the individual's psychological well-being. Mental health is a concept that reflects our thinking, feelings, and performance in the face of life situations and depends on our understanding of ourselves and our lives. In addition, depending on the amount of mental health, our performances in controlling stress, establishing relationships with others, our evaluations and choices are different. In fact, mental health is something more than a lack of mental illness. That is, simply because of the absence of mental illness, mental health cannot be confirmed in one person by 100%. What is certain is that, like maintaining physical health, maintaining mental health is important. Failure to treat any of mental problems, such as anxiety and depression, enhances its severity, and thus the treatment becomes more difficult and the possibility of a deeper problem arises. In the scope of mental health, a healthy person is looking for the meaning of life, prosperity, and happiness (8).

Distance learning is based on independent learning in which the students do not have geographic access to the educational environment and they study the materials that are provided by the educational institution. E-learning that is the newest generation of distance education,

includes a wide range of information and communication technologies, including computer-based learning, network learning, virtual classes, digital collaboration, and networking. The changing of educational approaches to information technology and the need to transforming the traditional education system to personalized learning has created good situations for the achievement of educational goals in today's world. One of the important achievements of new information technology is the impact and use of the Internet on education, creating education, and distant education. In such situations that distant education is considered as a telecommunication factor, learning opportunities are provided to anyone at any time and in any place (9).

Sharam (1997) and Clarke (1983) argue that learning is more due to the educational strategies that are included in the learning content, not because of the type of technology utilized to deliver the instructions. In order to select appropriate educational strategies before implementing any instruction, educators and designers should be aware of the principles of learning and teaching and apply these principles in practice. This is especially true for distant education because there is a distance between instructors and learners in this educational system (10). Due to the importance of the components of psychological needs in distance education, in this study, the role of psychological needs in predicting goal orientation and mental health of students in distance education system is studied and the following hypotheses have been raised:

The first main hypothesis: psychological needs have the power to predict the mental health of students.

1. The need for independence is predictive of the students' goal orientation
2. The need for competence is predictive of the students' goal orientation.
3. The need for attachment is predictive of the students' goal orientation.

The second main hypothesis: psychological needs have the power to predict the goal orientation.

4. The need for independence is predictive of the students' mental health.
5. The need for competence is predictive of the students' mental health.
6. The need for attachment is predictive of the students' mental health.

### **Experimental part**

Daftarchi and Sheikholeslami (2013) conducted a research entitled "The role of meeting basic psychological needs in the high school students' goal orientation". The results of this research has shown that among the basic psychological needs, fulfilling the need for independence and the need for attachment has a positive and meaningful predictive power to the mastery-tendency goal orientation (11). Daftarchi and Sheikholeslami (2015) conducted a research entitled "Prediction of students' mental joy based on goal orientations and basic psychological needs". The results of this study showed that the findings indicated a positive and significant correlation between basic psychological needs and mental joy (12). Aminianfar (2015) studied the relationship between psychological needs and self-regulation learning with the goal orientation of students in Yasouj. The results of this research have shown that there is a positive and significant relationship between the basic psychological needs and the dimensions of self-regulation learning with the dimensions of goal orientation (13). Badri Gargari et al. (2010) did a research titled "The Relationship between Personal Goal Orientation and Psychological Needs". The results of this study showed that there is a significant relationship between goal orientation and psychological needs (14). Ryan and Frederick (1997), in a research entitled "Energy, Personality, and Mental Health as a dynamic reflection of being good" achieved this result that by putting people in a situation where their psychological needs are met, their mental health is maintained or increase (15). Krapp (2005) in a research on the impact of essential needs and development of interests and inner motivation on learning came to the conclusion that

basic psychological needs represent a fundamental functional principle that controls behavior and growth, and as satisfying the biological needs is a natural requirement, sufficient and proper satisfaction of psychological needs is necessary for the optimal performance of the entire psychological system and the individual's continuous interactions (16). Elliott and Church (1997) conducted a research titled "A hierarchical model of the approach, avoidance, and motivation". The results showed that the expectation of competence is positively related to the approach goals and is negatively related to the avoidance goals (17). Deci and colleagues (2004) in their studies showed that basic psychological needs have a positive and significant relationship with students' communication with each other and their teachers. It was also found that the psychological needs of autonomy and competency have a positive and direct effect on the students' inner stimuli (18). Students in a distance education system often seek to develop their knowledge in the face with changes in everyday life, and learning emerges in this position as a problem-solving form, and that's why the learners are self-guiding and motivated to learn.

### **Research Methodology**

This research is a descriptive study and correlational type. Also, it is an applied research in terms of goal. The statistical population of this study is 1491 students of Payame Noor University of Rafsanjan who study in the distance education system. Using the Cochran formula, the sample size was 295 students who were selected through simple random sampling. To collect data, the questionnaires of mental health, goal orientation, and psychological needs were randomly distributed among the research samples and then were analyzed using SPSS software, version 21.

### **Research instruments**

The scale of psychological needs questionnaire was prepared by Gardia, Deci, and Verayan in 2000 and consists of 21 items that assess the three components of independence, competence, and attachment needs. Responses are marked based on a 5 likert scale from 1 (not true at all) to 5 (completely true). In this scale, the questions 3, 4, 7, 11, 15, 16, 18, 19, 20 are scored in reverse order. The reliability coefficients of this scale have been calculated in samples of Iranian executives and students as 0.74 to 0.79 through Cronbach's alpha formula that was acceptable for the purpose of the study. The goal orientation questionnaire was developed by Elliott and McGregor (2001) to measure the goal orientation factor according to the four-dimensional model and consists of twelve items. Each three items measure one orientation based on a 5 Likert scale. Elliot and McGregor (2001), using factor analysis, extracted four factors that explained 5.81 of the whole variance. Improvement goals consist of four goals of mastery-orientation (questions 4, 7, and 12), mastery-avoidance (questions 1, 5, and 10), performance-orientation (questions 1, 5, and 10), and performance-avoidance (questions 3, 8, and 11). Sadaty (1386) in a research used Cronbach alpha to calculate the reliability of the questionnaire and gained the alpha coefficients of 0.82, 0.84, 0.79, and 0.89 for the subcategories of mastery-orientation, mastery-avoidance, performance-approach, performance-avoidance respectively that indicates the high reliability of the questionnaire. Also, to determine the validity of this questionnaire, using the internal consistency, the correlation of each item with the total score was calculated. The correlation coefficient of each item was 0.48 to 0.84 (sady, 2007).

The mental health questionnaire was developed by Clodberg and Hiller in 1979. The main purpose of the questionnaire is to create a distinction between mental health and health. This 28-item questionnaire is designed for all people of the society. By using this questionnaire, one can determine the probability of having a mental disorder in a person. The questionnaire has 28 items and 4 sub-scales including physical symptoms, anxiety and insomnia, social inefficiency, and severe depression. Chong and Spears (1994, quoted by Attar, 1995) reported the reliability coefficient of the subscales 0.42 to 0.47. The alpha coefficient is 0.88 for the whole scale and it

is 0.66 to 0.85 its sub-scales. Yaghubi et al. (1995) has reported the general coefficient reliability of the whole scale as 0.88 and its sub-scales 0.66 to 0.85. Seif and Latifian (2002) also calculated the validity of this questionnaire by factor analysis with Varimax rotation and reported the coefficients of 0.71 to 0.84 for its sub-scales. They also calculated the reliability of the scale using the Cronbach alpha method and reported the following coefficients for the sub-scales: 0.84 for physical symptoms, 0.71 for anxiety, 0.84 for social function, and 0.84 for depression.

### Findings

According to the Table (1), out of 295 respondents in the sample size, 160 people (23/54 %) were female and 135 people (76/45%) were male.

**Table 1.** Frequency distribution based on gender

percentage	frequency	sex
54.23	160	man
45.76	135	woman
100.0	295	total

**Table 2.** Mean and standard deviations of variables and its sub-scales

goals	Attachments	competency	independenc	Psychological needs	Mental health	
295	295	295	295	295	295	number
47.9831	28.0542	21.4441	23.0373	72.5356	56.0358	mean
48.0000	28.0000	21.0000	23.0000	73.0000	55.0000	middle
51.00	27.00	17.00	22.00	69.00	55.00 <sup>a</sup>	mode
12.05189	4.90700	4.57843	5.55265	13.05735	10.46161	Standard variation
145.248	24.079	20.962	30.832	170.494	109.445	variance
2.579	-.023	.692	-.483	.022	.588	skewness
12.847	1.805	2.287	1.690	2.595	-.067	elongation
96.00	35.00	30.00	36.00	99.00	51.00	Changes range
12.00	12.00	10.00	7.00	29.00	36.00	minimum
108.00	47.00	40.00	43.00	128.00	87.00	maximum

### Inferential statistics

**Table 3.** Kolmogrov-Smirnov test to examine the assumption of the normality of variables

Mental health	Goal orientation	Psychological needs	
295	295	295	number
0.411	0.289	0.38	Kolmogorov Smirnov test
0.118	0.125	0.115	meaningfulness

The assumption of the normalization of research data is established.

To analyze the main hypothesis, the analysis of variance and regression have been used. In this method, statistical assumptions are as follows.

The first hypothesis: psychological needs have the power to predict the mental health of students.

**Table 4.** the variance and regression analysis Y (mental health) on the psychological needs

R2	R	P	F	MS	df	SS	Model
0.278	0.528	.000	113.046	8958.265	1	8958.265	regression
				79.244	293	23218.621	remaining
					294	32176.886	total
a. Dependent Variable: mental health							
b. Predictors: (Constant), psychological needs							

Table 4 shows the results of analysis of variance and mental health regression on the variable of psychological needs. According to the obtained F ratio which is significant at a level above 95%, the criterion variable regression is significant on the predictor variable and the probability that the obtained F ratio obtained randomly is less than 0.05. As a result, the research hypothesis is confirmed, that is it is possible to predict the mental health variable through the psychological needs variable. According to the results of the variable regression analysis, psychological needs variable predict the variable of the mental health criterion and the value of the F ratio is equivalent 11.43 that confirms this significant relationship at a meaningful level of less than 0.01. As a result, the research hypothesis that suggests the possibility of predicting the mental health variable by the psychological needs variable with more than 99% confidence is confirmed.

**Table 5.** The width from the origin (a) and the regression coefficients in the predictor variable

Sig.	T	Standardized coefficients		Non-standardized coefficient variable	
		Beta	Standard error	B	
.000	29.588		2.930	86.700	Constant value1 of a
.000	-10.632	-.528	.040	-.423	Psychological needs.
a. Dependent Variable: mental health					

Table 5 shows the constant value of  $a$  or the width from the origin in the predictor variable of the psychological needs in the regression equation, the value of  $b$  is the slope of the regression line and indicates the rate of change in  $y$  for a unit of change in  $x$ . The beta value or the standardized coefficient of scale regression is the effect of each predictor variable on the criterion variable, and with its increase, the effect of the psychological needs variable on the mental health is significant and can have a role as a predictive variable in the regression equation.

The need for competence

The second main hypothesis: psychological needs have the power to predict the goal orientation.

**Table 6.** Analysis of variance and regression Y (goal orientation) on the psychological needs

R2	R	P	F	MS	df	SS	Model
0.595	0.771	.000	429.747	4038.587	1	4038.587	regression
				9.398	293	2753.494	remaining
					294	6792.081	total
a. Dependent Variable: goal orientation							
b. Predictors: (Constant), psychological needs							

Table 6 shows the results of variance analysis and goal orientation regression on the psychological needs variable. Regarding the  $F$  ratio, which is significant at a level above 95%, the criterion variable regression is significant on the predictive variable, and the probability that the obtained  $F$  ratio is obtained randomly is less than 0.05. As a result, the main hypothesis of the research is confirmed, that is, through the variable of psychological needs, one can predict the goal orientation variable. Regarding the output resulted from the regression analysis, the psychological needs variable predicts the variable of goal orientation and the calculated value of the  $F$  ratio, which is 429.44, confirms this significant relationship at a meaningful level of less than 0.01. Therefore, the research hypothesis suggesting the possibility of the prediction of goal orientation variable by the psychological needs variable with more than 99% confidence is confirmed.

**Table 7.** The width from the origin ( $a$ ) and the regression coefficients in the predictor variable

Sig.	t	Standardized coefficients			Non-standardized coefficient variable	
		Beta	Standard error	B	Constant value of a	1
.000	7.062		1.009	7.126	Constant value of a	1
.000	20.730	.771	.014	.284	Psychological needs	

a. Dependent Variable: goal orientation

Table 7 shows the constant value of  $a$  or the width from the origin in the predictor variable of the psychological needs in the regression equation, the value of  $b$  is the slope of the regression line and represents the changes value in  $y$  for a unit of change in  $x$ . The beta value or the standardized coefficient of regression is the effect of each predictor variable on the criterion variable, and with its increase, the effect of the variable of psychological needs on the goal orientation is significant and can be considered as a predictive variable in equation regression.

The first sub-hypothesis: The need for autonomy has the power to predict mental health.

**Table 8.** Analysis of variance and regression  $Y$  (mental health) on the need for independence

R2	R	P	F	MS	df	SS	Model	
0.2209	0.469	.000	82.506	7069.903	1	7069.903	regression	1
				85.689	293	25106.983	remaining	
					294	32176.886	total	

a. Dependent Variable: mental health  
b. Predictors: (Constant), the need for independence

Table 8 shows the results of the analysis of variance and mental health regression on the need for independence. Regarding the  $F$  ratio, which is significant at a level above 95%, the criterion variable regression is significant on the predictive variable, and the probability that the obtained  $F$  ratio is obtained randomly is more than 0.05. As a result, the sub-hypothesis of the research is confirmed, that is, through the variable of the need for independence, one can predict the mental health variable.

Regarding the results from the variable regression analysis, the need for independence variable predicts the mental health criterion and the calculated value of the  $F$  ratio, which is 50.82, confirms this significant relationship at a meaningful level of less than 0.01. Therefore, the research hypothesis suggesting the possibility of the prediction of mental health variable by

the need for independence variable with more than 99% confidence is confirmed.

**Table 9.** The width from the origin (a) and the regression coefficients in the predictor variable

Sig.	t	Standardized coefficients		Non-standardized coefficient variable	
		Beta	Standard error	B	
.000	33.155		2.304	76.381	The constant value of a
.000	-9.083	-.469	.097	-.883	The need for independence

a. Dependent Variable: psychological needs

Table 9 shows the constant value of *a* or the width from the origin in the predictor variable of the need for independence in the regression equation, the value of *b* is the slope of the regression line and represents the changes value in *y* for a unit of change in *x*. The beta value or the standardized coefficient of scale regression is the effect of each predictor variable on the criterion variable, and with its increase, the effect of the need for independence variable on the mental health variable is significant and can be considered as a predictive variable in equation regression.

The second sub-hypothesis: The need for attachment has the power to predict mental health.

**Table 10.** Analysis of variance and regression Y (mental health) on the need for attachment

R2	R	P	F	MS	d.f	SS	Model	
0.182	0.427	.000	65.270	5862.028	1	5862.028	regression	1
				89.812	293	26314.858	remaining	
					294	32176.886	total	

a. Dependent Variable: mental health  
 b. Predictors: (Constant), the need for affiliation

Table 10 shows the results of the analysis of variance and mental health regression on the need for attachment. Regarding the *F* ratio, which is significant at a level above 95%, the criterion variable regression is significant on the predictive variable, and the probability that the obtained *F* ratio is obtained randomly is more than 0.05. As a result, the sub-hypothesis of the research is confirmed, that is, through the variable of the need for attachment, one can predict the mental health variable.

Regarding the results from the variable regression analysis, the need for attachment variable predicts the mental health criterion and the calculated value of the *F* ratio, which is 65/270, confirms this significant relationship at a meaningful level of less than 0.01. Therefore, the research hypothesis suggesting the possibility of the prediction of mental health variable by the need for attachment variable with more than 99% confidence is confirmed.

**Table 11.** The width from the origin (a) and the regression coefficients in the predictor variable

Sig.	t	Standardized coefficient			Non-standardized coefficient variable	
		Beta	standard error	B	Constant value of a	1
.000	25.428		3.208	81.565	Constant value of a	1
.000	-8.079	-.427	.113	-.910	The need for affiliation	
a. Dependent Variable: mental health						

Table 11 shows the constant value of  $a$  or the width from the origin in the predictor variable of the need for attachment in the regression equation, the value of  $b$  is the slope of the regression line and represents the changes value in  $y$  for a unit of change in  $x$ . The beta value or the standardized coefficient of scale regression is the effect of each predictor variable on the criterion variable, and with its increase, the effect of the need for affiliation variable on the mental health variable is significant and can be considered as a predictive variable in equation regression.

The third sub-hypothesis: The need for competence has the power to predict mental health

**Table 12.** Analysis of variance and regression Y (mental health) on the need for competency

R2	R	P	F	MS	df	SS	Model	
0.229	0.479	.000	87.176	7378.273	1	7378.273	regression	1
				84.637	293	24798.613	remaining	
					294	32176.886	total	
a. Dependent Variable: mental health								
b. Predictors: (Constant), the need for competence								

Table 12 shows the results of the analysis of variance and mental health regression on the need for competence. Regarding the  $F$  ratio, which is significant at a level above 95%, the criterion variable regression is significant on the predictive variable, and the probability that the obtained  $F$  ratio is obtained randomly is more than 0.05. As a result, the sub-hypothesis of the research is confirmed, that is, through the variable of the need for competence, one can predict the mental health variable.

Regarding the results from the variable regression analysis, the need for competence variable predicts the mental health criterion and the calculated value of the  $F$  ratio, which is 218/99, confirms this significant relationship at a meaningful level of less than 0.01. Therefore, the research hypothesis suggesting the possibility of the prediction of mental health variable by the need for competence variable with more than 99% confidence is confirmed.

**Table 13.** The width from the origin (a) and the regression coefficients in the predictor variable

Sig.	T	Standardized coefficient	Non-standardized coefficient variable		
		Beta	standard error	B	
.000	30.940		2.569	79.499	The constant value of a
.000	-9.337	-.479	.117	-1.094	The need for competence

a. Dependent Variable: mental health

Table 13 shows the constant value of *a* or the width from the origin in the predictor variable of the need for competence in the regression equation, the value of *b* is the slope of the regression line and represents the changes value in *y* for a unit of change in *x*. The beta value or the standardized coefficient of scale regression is the effect of each predictor variable on the criterion variable, and with its increase, the effect of the need for competence variable on the mental health variable is significant and can be considered as a predictive variable in equation regression.

**Table 14.** Coefficients of correlation between components of psychological needs and mental health

Mental health	The need for affiliation	The need for competence	The need for independence	Psychological needs			
				Pearson coefficient	Significance level	N	
				.876**	.901**		Psychological needs
				.000	.000		
				295	295	295	
				.731**	.901**		The need for independence
				.000	.000		
				295	295	295	
				.731**	.876**		The need for competence
				.000	.000		
				295	295	295	
				.569**	.585**	.824**	The need for affiliation
				.000	.000	.000	
				295	295	295	
				-.479**	-.469**	-.528**	Mental health
				.000	.000	.000	
				295	295	295	
							Significance level
	.000	.000	.000				
	295	295	295				N

The fourth sub-hypothesis: the need for independence has the power to predict the students' goal orientation

**Table 15.** Analysis of variance and Y regression (goal orientation) on the need for independence

R2	R	P	F	MS	d.f	SS	Model	
0.319	0.565	.000	137.107	2165.136	1	2165.136	regression	1
				15.792	293	4626.945	remaining	
					294	6792.081	total	
a. Dependent Variable: goal orientation								
b. Predictors: (Constant), the need for independence								

Table 15 shows the results of the analysis of variance and goal orientation regression on the need for independence. Regarding the  $F$  ratio, which is significant at a level above 95%, the regression coefficient is significant on the predictive variable, and the probability that the obtained  $F$  ratio is obtained randomly is more than 0.05. As a result, the sub-hypothesis of the research is confirmed, that is, through the variable of the need for independence, one can predict the goal orientation variable.

Regarding the results from the variable regression analysis, the need for independence variable predicts the goal orientation criterion and the calculated value of the  $F$  ratio, which is 137.107, confirms this significant relationship at a meaningful level of less than 0.01. Therefore, the research hypothesis suggesting the possibility of the prediction of goal orientation variable by the need for independence variable with more than 99% confidence is confirmed.

**Table 16.** The value of the width from the origin (a) and the regression coefficients in the predictor variable

Sig.	T	Standardized coefficient		Non-standardized coefficient variable	
		Beta	Standard error	B	
.000	16.639		.989	16.456	The constant value of the width from the origin a
.000	11.709	.565	.042	.489	The need for independence
a. Dependent Variable: goal orientation.					

Table 16 shows the constant value of  $a$  or the width from the origin in the predictor variable of the need for competence in the regression equation, the value of  $b$  is the slope of the regression line and represents the changes value in  $y$  for a unit of change in  $x$ . The beta value or the standardized coefficient of scale regression is the effect of each predictor variable on the criterion variable, and with its increase, the effect of the need for independence variable on the goal orientation variable is significant and can be considered as a predictive variable in equation regression.

The fifth sub-hypothesis: The need for competence has the power to predict the student's goal orientation.

**Table 17.** Analysis of variance and Y regression (goal orientation) on the need for competence

R2	R	P	F	MS	d.f	SS	Model	
0.280	0.529	.000	113.926	1901.561	1	1901.561	regression	1
				16.691	293	4890.520	remaining	
					294	6792.081	total	
a. Dependent Variable: goal orientation								
b. Predictors: (Constant), the need for competency								

Table 17 shows the results of the analysis of variance and goal orientation regression on the need for competence. Regarding the *F* ratio, which is significant at a level above 95%, the criterion variable regression is significant on the predictive variable, and the probability that the obtained *F* ratio is obtained randomly is more than 0.05. As a result, the sub-hypothesis of the research is confirmed, that is, through the variable of the need for competence, one can predict the goal orientation variable.

Regarding the results from the variable regression analysis, the need for competence variable predicts the goal orientation criterion and the calculated value of the *F* ratio, which is 113.926, confirms this significant relationship at a meaningful level of less than 0.01. Therefore, the research hypothesis suggesting the possibility of the prediction of goal orientation variable by the need for competence variable with more than 99% confidence is confirmed.

**Table 18.** The width from the origin (*a*) and the regression coefficients in the predictor variable

Sig.	T	Standardized coefficient			Non-standardized coefficient variable	
		Beta	standard error	B		
.000	13.850		1.141	15.804	The constant value of <i>a</i>	1
.000	10.674	.529	.052	.555	The need for competence	
a. Dependent Variable: goal orientation						

Table 18 shows the constant value of *a* or the width from the origin in the predictor variable of the need for competence in the regression equation, the value of *b* is the slope of the regression line and represents the changes value in *y* for a unit of change in *x*. The beta value or the standardized coefficient of scale regression is the effect of each predictor variable on the criterion variable, and with its increase, the effect of the need for competence variable on the goal orientation variable is significant and can be considered as a predictive variable in equation regression.

The sixth sub-hypothesis: The need for attachment has the power to predict the student's goal orientation.

**Table 19.** Analysis of variance and Y regression (goal orientation) on the need for attachment

R2	R	P	F	MS	df	SS	Model	
0.845	0.919	.000	1598.754	5740.105	1	5740.105	regression	1
				3.590	293	1051.976	remaining	
					294	6792.081	total	
a. Dependent Variable: goal orientation								
b. Predictors: (Constant), the need for attachment								

Table 19 shows the results of the analysis of variance and goal orientation regression on the need for attachment. Regarding the *F* ratio, which is significant at a level above 95%, the criterion variable regression is significant on the predictive variable, and the probability that the obtained *F* ratio is obtained randomly is more than 0.05. As a result, the sub-hypothesis of the research is confirmed, that is, through the variable of the need for attachment, one can predict the goal orientation variable.

Regarding the results from the variable regression analysis, the need for attachment variable

predicts the goal orientation criterion and the calculated value of the F ratio, which is 1598.75, confirms this significant relationship at a meaningful level of less than 0.01. Therefore, the research hypothesis suggesting the possibility of the prediction of goal orientation variable by the need for affiliation variable with more than 99% confidence is confirmed.

**Table 20.** The value of the width from the origin (a) and the regression coefficients in the predictor variable

Sig.	T	Standardized coefficient	Non-standardized coefficient variable		
		Beta	Standard error	B	
.000	3.825		.641	2.453	The constant value of a
.000	39.984	.919	.023	.900	The need for affiliation
a. Dependent Variable: goal orientation					

Table 20 shows the constant value of  $a$  or the width from the origin in the predictor variable of the need for attachment in the regression equation, the value of  $b$  is the slope of the regression line and represents the changes value in  $y$  for a unit of change in  $x$ . The beta value or the standardized coefficient of scale regression is the effect of each predictor variable on the criterion variable, and with its increase, the effect of the need for attachment variable on the goal orientation variable is significant and can be considered as a predictive variable in equation regression.

**Table 21.** Coefficients of Correlation between Components of Psychological Needs with goal Orientation

Mental health	The need for affiliation	The need for competence	The need for independence	Psychological needs		
.771**	.824**	.876**	.901**		Pearson coefficient	Psychological needs
.000	.000	.000	.000			
295	295	295	295	295	N	
.565**	.585**	.731**		.901**	Pearson coefficient	The need for independence
.000	.000	.000		.000	Significance level	
295	295	295	295	295	N	
.529**	.569**		.731**	.876**	Pearson coefficient	The need for competence
.000	.000		.000	.000	Significance level	
295	295	295	295	295	N	
.919**		.569**	.585**	.824**	Pearson coefficient	The need for affiliation
.000		.000	.000	.000	Significance level	
295	295	295	295	295	N	
	.919**	.529**	.565**	.771**	Pearson coefficient	Goal orientation
	.000	.000	.000	.000	Significance level	
295	295	295	295	295	N	

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

### **Discussion and Conclusion**

The main goal of this research is to identify and predict the predictive power of goal orientation and mental health based on psychological needs in students of Payame Noor University. Based on the results of this study, psychological needs can predict the goal orientation and mental health in students in the distant education system. The results of this study are consistent with the results of studies conducted by Hosseini Nasab et al. (2011), Salehi et al. (2013), Daftarchi and Sheikholeslami (2013), Aminian Far (2014), Barder (2006), Kavusian (2012), Tuminen et al. (2011), Krapp (2005), Islami et al (2008), Badri Gargari et al. (2010) [19, 20, 11, 19, 13, 22, 23, 16, 14]. Also, the results of Hosseini Nasab et al. (2012) showed that satisfaction of basic needs can be effective in enhancing social intelligence [20]. The results of the study conducted by Hosseini Nasab et al. (2012) also showed that satisfaction of basic needs can be effective in enhancing social intelligence [20]. The results of the research is also in line with the findings of Canaper and Cropley stating that in a good teaching process, there should be good interaction between the student and the professor, the cooperation among students should be encouraged, active learning takes place, immediate feedback should be provided, the time spent for doing the assignment and the various ways of teaching and learning should be emphasized (21). The results are also consistent with the results obtained by Van den Berg and Banker, who examined the components of effective e-learning (22, 23). As stated, basic psychological needs are considered as motivations for helping the active engagement with the environment, healthy psychological performance, skills development and healthy growth (24). These needs that exist innately in all human beings include the need for autonomy, competency, and communication (25). Self-determination occurs when people feel that they are the cause of their behavior. Behaviors are self-determined when our tendencies, preferences, and desires guide direct decision making process to do or not to do a specific activity. When external factors force us to think, feel or behave in a particular way, we are not autonomous. The perception of choice refers to the time when we are placed in environmental conditions that allow us to make decisions and also give us the opportunity to make choices. Some environments activate out need to be autonomous and they also support it, while other environments ignore this need and do not provide it. According to Ryan and Deci (2008), environmental support helps to meet psychological needs and these needs facilitate and strengthen self-regulatory motivation, and one of the consequences of enhancing academic motivation is satisfaction and consent with learning environments [26]. According to the results conducted by Kavusian et al. (2012), the basic psychological needs of self-instruction, competence, and communication play the role of mediator between the variables supporting self-instruction with motivation, academic performance, and other variables. Also the relationship with classmates has a meaningful and indirect impact on the well-being of the school [27]. Also, the results of this study are consistent with those conducted by Aqakasiri, Badrian, and Muller who showed that the use of new technologies is not effective in increasing student satisfaction and interactions, what is effective is the instructor not the way of presenting the course (28, 29, and 30). Relationships sometimes support the need for autonomy and sometimes prevent it; for example, when a teacher listens carefully to students and then uses this information to give them the opportunity to work at their own pace. The environments supporting autonomy encourage people to set their own goals, direct their behaviors, choose their own way of solving problems, and pursue their own tendencies and values. The tactics supporting autonomy, by identifying and supporting the others' inclinations and preferences, reinforce their motivation and, moreover, show greater learning, performance, and sustainability. Competency is the need for effective interaction with the environment, the use of talents and skills, the pursuit of optimal challenges or assignments that are compatible with the level of ability of the individual and the mastery over the challenges. When we do a task whose level of difficulty matches precisely with our current skills, we feel that we are very interested in it and it satisfies our needs for competence. The

need for attachment is the need to establish emotional attachments to others, and this need expresses the emotional relation and engagement in sincere relationships. What people want from an appropriate relationship is to make a meaningful relationship with another one. Communication is an important motivational structure, because when interpersonal relationships support their need for communication, they perform better, become more flexible against stress, and have fewer psychological problems. Because we need to communicate, social links are made easily. Goal orientation in students means that to what extent they are able to pursue their goals in a fully voluntary and personal manner, and to what extent they feel competent to choose and pursue their goals, and to what extent they can maintain their positive relationship in this process. According to the results of the research, having the feeling of choosing and regulating activities and having the feeling that you have influence on the environment and you are able to use your talents and skills and you are able to dominate the obstacles and problems, and also create interaction (with Professor and classmates) in the educational environment can predict mental health and accurate planning and targeting of students. It is clear that the goal orientation, that is the purpose which students consider in different situations of progress, considering their abilities in one or a set of activities, can determine their academic performance, and students definitely cannot have an optimal performance, without a goal, in the educational environment. Therefore, it can be said that satisfaction of basic psychological needs leads to strengthening the power to set a goal and increasing mental health, and if there is an obstacle on their way, it will reduce the mental health of the individual. Mental health is a concept that reflects our thinking, feelings, and actions in different life situations and it depends on each individual's perception of self and life. Depending on the degree of having mental health, the performance of each person in controlling stress, establishing a relationship with others, evaluations and choices are different.

Given the fact that the research sample is the university students in distant educational system, in this educational system, teaching materials are presented in a half-present way or for some courses in an electronic way. one of the benefits of e-learning is that it changes the students' beliefs about their abilities and their performance, so that the users who use this technology would have a more positive attitude toward their own ability (positive self-efficacy) to solve the problems comparing to those who do not use it that results in an increase in the pleasure and motivation of progress for learning (31, 32). Mahboobi et al. (2011) in a study entitled "the effect of technology information and communication on the students' self-efficacy, academic performance, and entrepreneurship" stated that information technology and communication has a positive impact on students' self-efficacy, academic performance, and entrepreneurship (33). The results of the study conducted by Hurday, Luck, and Zu (2007) showed that learning through information technology and communication affects the students' academic achievement, self-esteem, and self-efficacy (34). Another educational outcome is academic fatigue. According to Alikhani (2006), academic fatigue in traditional universities has become one of the major problems in the educational centers, which not only can make students mentally disturbed, but, in terms of academic achievement, they are at risk of deprivation of studying (35). Academic exhaustion, academic cynicism and, inefficacy are three areas of academic fatigue. People with academic fatigue usually have symptoms such as indifference to the content of the course, the inability to continue attending the classes, not participating in classroom activities, feeling meaningless in class activities, and feeling unable to learn lessons and eventually they experience academic failure (36). It should be remembered that one of the most important prerequisites for successful implementation of distance education is the accuracy of choosing educational strategies, goals, audience, content, and the way of achieving learning (evaluation). The lack of attention to any of these will challenge the success and effectiveness of distance education. Only having the right content cannot be the criterion of successful distance education and the occurrence of learning. But how to use the content and

how to present it to the learner is one of the main points that should be addressed in a distant education system. Each era, according to its characteristics, requires its own education. In addition to taking into account the general principles and strategies that have been affecting the people educational and learning activities for a long time, changes in trends, methods, theories, etc., have emerged alternative approaches in the education system. The results of the study showed that the existence of interactions in the educational environment, promote the mental health and targeting in the students. Based on the results of the research, it is necessary to consider the strengthening of the psychological needs components (autonomy and independence, competency, and interactions) in the educational environments of the students to reduce the stress levels, create relaxation, and enhance goal setting. Although in modern education practices, the emphasis is placed on the autonomy and independence of students, it is necessary to consider the appropriate use of talents and skills as well as the possibility of engaging in interactions. Combined training in this educational system can also provide the enhancement of autonomy and the use of interactions.

### References

- [1] Pintrich, P. R., & Schunk, D. H. *Motivation in education: theory, research & applications*. Merrill Prentice Hall, Upper Saddle River, NJ (2002).
- [2] Lee, J. Q., McInerney, D. M., Liem, G. A. D. & Ortiga, Y. P. The relationship between future goals and achievement goal orientations: An intrinsic–extrinsic motivation perspective. *Contemporary Educational Psychology*, 35(2010), 264-279.
- [3] Elliot, A. J., Murayama, K. “On the measurement of achievement goals: Critique, illustration, and application.” *Journal of Educational Psychology* 100(2008), 613–628
- [4] Elliot, A. J., & McGregor, H. A. A 2×2 achievement goal framework. *Journal of Personality and Social Psychology*, 80(2001), 501- 519.
- [5] Talley, A. E., Kocum, L., Schlegel, R. J., Molix, L. & Bettencourt, A. *Social Roles, Basic Need Satisfaction, and Psychological Health: The Central Role of Competence*, us national library of medicine national institutes of health, Published online 2012 Jan 3. doi: [10.1177/0146167211432762](https://doi.org/10.1177/0146167211432762).
- [6] Evans, P., McPherson, G. E. & Davidson, J. W. The role of psychological needs in ceasing music and music learning activities. *Psychology of Music*, 41(5)(2013), 600-619.
- [7] Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organism dialectical perspective. In R. M. Ryan & E. L. Deci (Eds.), *Handbook of self-determination research*. Rochester, N.Y.: The University of Rochester Press.
- [8] Finney, S. J., Pieper, S. L., & Barron, K. E. Examining the psychometric properties of the achievement goal questionnaire in a general academic context. *Educational and Psychological Measurement*, 64(2)(2004), 365-382.
- [9] Afzalnia, M. *Design and acquaintance with materials centers Learning resources*. Tehran, Samt Publications (2009).
- [10] Anderson & Grison. *E-learning from theory to practice*. Translation by Bibi Eshrat Zamani and Vidaamin Zamani. Tehran: Smart School (2006).
- [11] Daftarchi, E. & Shekhol Eslami, R. The role of fulfilling basic psychological needs in student orientation. *Journal of Psychology*, Seventh, No. 3(2013).
- [12] Daftarchi, E. The role of fulfilling the basic psychological needs of mindfulness and mental vitality of high school students. Master's dissertation, Shiraz University (2011).
- [13] Aminian Fard, M. The Relationship between Psychological Needs and Self-Regulatory Learning with the Purpose Orientation of Yasuj Students, Master's Thesis, Tehran University (2014).
- [14] Badri Gargari, R., Mesr Abadi, J. *Journal of Psychology and Education*, Third Year,

- No. 10(2010), pp. 133-111
- [15] Ryan, R. M., & Frederick, C. On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, 65(1997), 529–565.
- [16] Krapp, A. Basic needs and the development of interest and intrinsic motivational orientations. *Learning and Instruction*. 15(2005). 381-395
- [17] Elliot, A. J., & Church, M. A. A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72(1997), 218–232
- [18] Deci, E. L. & Vansteenkiste, M. Self-determination theory and basic need satisfaction: Understanding human development in positive psychology. *Ricerche di Psicologia*, 27(2004), 17–34
- [19] Hosseini Nasab, S.D., Gol Mohammadnejad, GH., Akbari Haghghat, E. The Relationship between Basic Psychological Needs and Social Intelligence of Girls and Boys Students, *Journal of Educational Sciences*, Vol. 5(2011), No. 17, pp. 43-27.
- [20] Salehi, H., Ghamrani, A., Salehi, Z. The Relationship between Basic Psychological Needs and Mental Health of Veterans of Hazrat Amiralmomenin Hospital, *Journal of Science and Research in Tarbiyat-e Daneshbab*, Year Six, No. 22(2013).
- [21] Knapper, K. & A. Cropley. *Lifelong Learning in Higher Education*. (Third Edition), London: Kogan Page (2000).
- [22]- Van de Grift, W. "Quality of teaching in four European countries: A review of the literature and application of an assessment instrument". *Educational Research*, Vol. 49, No. 2(2007), pp.127-152.
- [23] Bangert.A.W. "The Seven Principles of Good Practice: A framework for evaluating on-line teaching". *Internet and higher education*, Vol.7, No. 3(2004), pp. 217-232
- [24] Brdar, I., Rijavec, M., & Loncaric, D. Goal orientations, coping with school failure and school achievement. *European Journal of Psychology of Education*, 1(2006), 53-70-
- [25] Tuominen-Soini, H., Salmela-Aro, K. & Niemivirta, M. Stability and change in achievement goal orientations: A person-centered approach, *Contemporary Educational Psychology*, 36(2011), 82–100
- [26] Ryan,R.M.,& Deci, E.L. A self-determination theory approach to psychotherapy: The motivational basis for effective change. *Canadian Psychology*,49(2008),186-193.
- [27] Kavosian, J., Kadivar, P., Farzad, V. Relationship between environmental variables, school and educational well-being: the role of psychological needs, motivational self-regulation and academic excitement, *Quarterly journal of psychological health*, Volume 6, Number 1(2011).
- [28] Aghakasiri Z. Evaluation of Virtual curriculum inthe universities ofTehran,from the perspectiveof faculty and students.Thesis M.A., Teacher Training University, Faculty of psychology and educational sciences (in Persian) (2006).
- [29] Badriyan, M. *Evaluation of computer engineering electronic curriculum at Khajeh Nasiroddin Toosiuniversity based on Rodrik sims model. Thesis M.A., Allameh tabatabai university, Faculty of psychology and educational sciences (in Persian) (2008).*
- [30]- Mueller,C.L. *Masters in nursing students experiences as a member of a virtual classroom on the internet. Doctoral dissertation Indiana university (2001).*
- [31] Zamani, E., Saeedi, M., Saeedi, A. The Effectiveness and Effectiveness of the Effectiveness of Multiculturalism and the Educational Mentality of Math. *Quarterly Journal of Technology, Communication in Educational Science* , Second Year, No. 4(2012), pp. 67-87.
- [32] Shin- Hsine, Y. Exploring college student's attitudes and self –efficacy of mobile

- learning. *The Turkish on line Journal of Education Technology*, 11(2012), 4,148-154
- [33] Mahboobi, T., Zandi, B., Maleki, H., Karimi, S. B. Influence of Information and Communication Technology on Self-efficacy, Academic Performance and Student Entrepreneurship. *Two quarterly management and planning schedules in educational management*. 4 (6)(2011), pp. 8-31.
- [34] Hurday, M., Luck, S., & Zu, F. *The survey of effect of multimedia on Mercian student's extra curriculum*. Boston: McGraw-hill (2007).
- [35] Salehi M, Enayati T. (2010), Relationship between the main components learning and study with academic achievement. *J New Approaches in Educational Administratin*; 2(3)(2010). 145-162. (Persian).
- [36] Noami, A. The Relationship Between Quality of Learning Experiences and Academic Burnout of Students. 117-134, (4) Master's degree in Shahid Chimran University of Ahvaz. *Journal of Psychological Studies*, 5(4)(2009) ،134-117.