

Students Perceived School Culture, Basic Psychological Needs, Intrinsic Motivation and Academic Achievement: Testing a Casual Model

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Abstract: The purpose of the present research was to examine the relationship between students perceived school culture, basic psychological needs, intrinsic motivation and academic achievement in a causal model. The 296 high school students (159 females and 137 males) in Tabriz, North-West of Iran, participated in this research and completed the students perceived school culture questionnaire based on Hofstede's cultural dimensions (femininity, uncertainty avoidance, collectivism and power distance), basic psychological needs and intrinsic motivation. The results of the path analysis showed that fulfillment of basic psychological needs and intrinsic motivation has positive effect on academic achievement. Uncertainty avoidance and power distance have also negative effect on fulfillment of psychological needs but the influence of femininity on this variable was positive. Also, collectivism has no significant effect on it. In general, the findings showed that if school culture supports students autonomy, they will experience fulfillment of their basic psychological needs and attain higher intrinsic motivation and academic achievement.

Key words: School culture hofstede's cultural dimensions, self-determination theory, intrinsic motivation, basic psychological needs, academic achievement

INTRODUCTION

Students academic achievement is one of the main criteria for evaluating the success of any educational system, i.e., its ultimate goal is fulfilling this issue (Farahani, 1994). Accordingly, educational researchers and psychologists have always considered measuring students academic achievement and its effecting factors as one of the main variables in education (Chamorro-Premuzic and Furnham, 2003). Stimulus-response approach, in addition to intelligence as a main predictor of academic achievement has been dominated on educational systems for many years and no need of saying, it still has a strong effect on them. According to this, teachers use supervision, evaluations and external controls, accompanied by punishment or encouragement to be confident of his/her students learning. Therefore, under such a controlling situation, students feelings of pleasure, eagerness and interest that formed under the influence of nature of learning, replaced with anxiety, indisposition, tiredness and alienation. This creates a vicious circle which dictates that students

are not mainly interested in studying and learning and teachers should create internal learning by external control (Niemiec and Ryan, 2009).

Self determination theory: Organismic approaches of motivation in psychology believe that innate characteristics of human nature make him ready to take an active role of involving in social and physical environments. Based on these characteristics, human beings are innately active and creative creatures interested in learning and internalizing knowledge, customs, rituals and values of his environmental and social life. These innate trends to curiosity and knowledge acquisition could be a resource for educational experts to lead students learning, growth and academic achievement (Niemiec and Ryan, 2009). One of the main trends in this regard is the Self-Determination Theory (SDT) which is a major one on humans motivation, emotion and development (Reeve, 2008).

SDT consists of 3 basic elements which called psychological needs: Relatedness, competence and autonomy (Gagne and Deci, 2005; Roca and Gagne, 2008).

Need for relatedness refers to the individual's tendency for the feeling of relation and connection with others, competence refers to the individual's tendency for the feeling of effectiveness in reaching valuable and useful results and autonomy refers to the individual's tendency to begin and regulate his behaviors. Based on SDT, these needs could be fulfilled through the person's involvement in wide range of behaviors that differ from one person to another and one culture to another. Regardless of the way of fulfilling these needs, the main point is that their fulfillment is essential for individuals healthy development and psychological adjustment in any cultures (Sorebo *et al.*, 2009). If students basic psychological needs fulfill, they will have higher intrinsic motivation and academic achievement. Intrinsic motivation has an important basic role in SDT, since it shows the individual's tendency to perform behavioral and psychological activities without any external controls and dependencies (Rashvanlou and Hejazi, 2010). In fact, obtaining intrinsic motivation in learning and leading learning through internal guides is one of the main purposes of education (Niemic and Ryan, 2009). Carried out studies indicate positive relationship between intrinsic motivation and academic achievement (Areepattamannil *et al.*, 2011; Rashvanlou and Hejazi, 2010). Moreover, studies have shown that fulfillment of students basic psychological needs has positive effect on their academic achievement (Marshik, 2010). Also, researches indicate positive effect of basic psychological needs on intrinsic motivation (Ejei *et al.*, 2009; Hanze and Berger, 2007).

School culture and its dimensions: Based on the self determination theory, environmental and social contexts that provide autonomy for the individuals, lead to fulfillment of basic psychological needs and in contrast, external controls prevent it (Reeve, 1998). Sadeghi *et al.* (2013) divided environmental supporting autonomy into two groups: Flexible environments like supporting teachers or principal's providing autonomy and stable environments like organizational culture or school culture. Studies, concerning the effect of environmental supporting autonomy on fulfillment of students basic psychological needs, consider more flexible environments such as classrooms, i.e., teacher's supporting of students autonomy (Black and Deci, 2000; Ejei *et al.*, 2009). These studies have dealt more with the effect of supporting autonomy in micro level (such as classrooms) on fulfillment of psychological needs and have ignored macro level while based on the theory of ecological systems, factors of macro level like existing culture in

schools could have strong effect on students beliefs and behaviors (Berk, 2006). In any educational systems, these environments could be the existing culture at school, the structure of educational system in a country and in more macro level, the existing culture in that country.

School culture is a system of norms, meanings and values that are common among its members such as students, teachers and other staffs (Purkey, 1990). The main characteristic of culture is its high stability, i.e., it has a very strong resistance against environmental effects to say in other word, it hardly changes. This characteristic causes the culture to have strong and wide and almost similar effect on various types of students, entering in a specific school (Hofstede *et al.*, 2010). Following Hofstede (1980), Akour (2006) and Sadeghi *et al.* (2013) have also identified 4 dimensions for environment cultures in educational systems, such as schools and universities. These dimensions include femininity, uncertainty avoidance, collectivism and power distance.

Femininity refers to the extent to which one believes in distinction between gender roles in the society. Uncertainty avoidance concerned with how people face the unknown aspects of future and referring to the degree of which members of a culture feel danger in vague and uncertain situations. Collectivism deals with the common relationship between an individual and a group in a specific society. And power distance refers to the extent to which less powerful members of institutes and organizations (such as families) accept and expect unequally distributed power (Hofstede *et al.*, 2010; Hofstede, 1980). Hofstede's cultural dimensions have attracted special attention of researches in management, organizational behavior and information technology domains (Srite *et al.*, 2008; Amani Saribagloo *et al.*, 2011). But, applying these dimensions in educational researches, especially on students has confronted with some limitations and reviewing literature shows that no study has already dealt with investigation of students perception of school culture based on Hofstede's cultural dimensions.

Based on Hofstede's cultural dimensions, if the culture of an organization, such as school, supports students autonomy, they will experience fulfillment of their basic psychological needs (Sadeghi *et al.*, 2013). For example in feminine cultures, individuals pay more attention to quality of life and relations with each other. In these cultures, people support each other (Hofstede *et al.*, 2010). They provide many facilities for people to seek their own interests rather than competition with others and as a result, such cultures put more value on the individual's autonomy which leads to fulfillment of their psychological needs (Sadeghi *et al.*, 2013).

In collectivistic cultures, much more social pressure is on empathy. In these cultures more emphasis is on group acceptance and group values are preferred over personal values and tendencies (Sadeghi *et al.*, 2013; Akour, 2006; Srite *et al.*, 2008). This issue increases the rate of environmental controlling in collectivistic cultures and limits fulfillment of students psychological needs.

There are many pre-determined regulations, norms and action structures in cultures with high uncertainty avoidance. Regulations may have negative effects on the individuals independent judgment and causes the people to have less autonomy. Therefore, cultures with high uncertainty avoidance could be an autonomy controlling environment and have negative effect on fulfillment of individuals' psychological needs (Sadeghi *et al.*, 2013; Srite, 2000; Thatcher *et al.*, 2003).

In cultures with high power distance, norms of stability and empathy help stability of power distribution and social order. In these cultures, innovation and autonomy are not promoted. People recognize that social rewards are provided for their empathy not autonomy. Meanwhile, centralism and presence of hierarchy power in these cultures, extremely, limits the people's power of innovation. People with high power distance respect authority more and have fewer tendencies to challenge the existing knowledge of systems. When the power distance is high in a society, more emphasis is on hierarchical symbols like power distribution and rewards and presents opportunities, credits, unequal power distribution and privilege are considered as norms. Since, people's performance is a criterion for rewards distribution, they have fewer tendencies toward initiation and innovation. Moreover, low-power people, in such cultures, may feel that they have less resources and opportunities for autonomy and as a result they have less feeling of basic psychological needs fulfillment (Sadeghi *et al.*, 2013; Akour, 2006; Srite, 2000).

The purpose of the research: Review of research literature shows that no research has already dealt with the investigation of the relationship between students perception of school culture based on Hofstede's cultural dimensions with SDT constructs, such as fulfillment of basic psychological needs and the present research is the first of its kind. Integrating these dimensions in the SDT could be an important step in boasting this theory. Therefore, the present study is the first attempt in testing the effect of cultural dimensions on students innate psychological processes, e.g., their psychological needs. Other researchers on the other hand, paid more attention to direct environments like classroom while

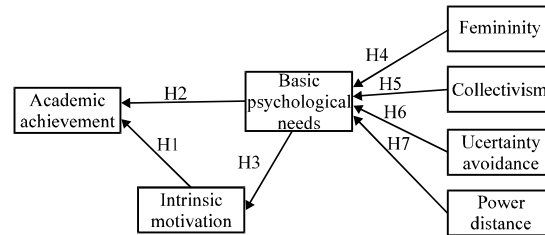


Fig. 1: Theoretical model of research

Sadeghi *et al.* (2013), proposed the necessity of paying attention to indirect environments. Considering the important role of cultural dimensions in formation of people's personality (Hofstede *et al.*, 2010), investigating how these dimensions effect on people's psychological processes like psychological needs and its relation with SDT is felt logical. Considering the earlier mentioned issues, the purpose of the present study is to examine the relationship among students perceived school culture based on Hofstede's cultural dimensions, basic psychological needs, intrinsic motivation and academic achievement in a causal model. Theoretical model of research has been presented in Fig. 1.

According to the earlier theoretical framework (Fig. 1), the following hypotheses are put forward:

- Intrinsic motivation has positive effect on students academic achievement
- Fulfillment of basic psychological needs has positive effect on student's academic achievement
- Fulfillment of basic psychological needs has positive effect on student's intrinsic motivation
- Femininity has positive effect on fulfillment of students basic psychological needs
- Collectivism has negative effect on fulfillment of students basic psychological needs
- Uncertainty avoidance has negative effect on fulfillment of students basic psychological needs
- Power distance has negative effect on fulfillment of students basic psychological needs

MATERIALS AND METHODS

Research design: The present research is a correlational one, using path analysis method that investigates causal relationships among 7 latent variables of femininity, collectivism, uncertainty avoidance, power distance, fulfillment of the basic psychological needs, intrinsic motivation and academic achievement. Research data have been collected, using a questionnaire that includes 2 sections: Demographic characteristics and items which

Table 1: Demographic information of research participants (n = 296)

Variables	Category	Frequency	Percent of frequency
Gender	Female	159.00	53.70
	Male	137.00	46.30
Field of study	Mathematics-physics	96.00	32.40
	Empirical science	91.00	30.80
	Human science	53.00	17.90
	First grade of high school	56.00	18.90
Educational course	First	56.00	18.90
	Second	80.00	27.00
	Third	94.00	31.80
	Pre university	66.00	22.30
Age		Mean = 16.20	SD = 1.16

measure each of variables in theoretical model. To test theoretical model and research hypothesis, AMOS 16 software was used.

Research participants and data collection: Participants of this study were 296 high school students in Tabriz, in the Eastern Azerbaijan Province, located in North-West of Iran. The 53.7% of participants were females and remaining was male. All of them were bilingual Turkish-Persian students. Mean age of these students was 16.50 years (SD = 1.16). Most of these students (31.8%) were studying in third grade. Also, mathematics-physics field of study had the higher number of participants (32.4%). Before delivering the research questionnaires, participants were informed about the research purposes briefly and they were told they could avoid from involving in the study whenever they want. In total, answering the items takes no >10 min. Table 1 represents demographic characteristics of the research sample.

Measurement instruments

Academic achievement: To measure academic achievement, students average in the first semester of the educational year of 2012-2013 has been used.

Basic psychological needs and intrinsic motivation: To measure these variables, the scale used by Carreira (2012) was applied. This scale is comprised of 16 items that measure 3 psychological needs: Autonomy (4 items), competence (4 items), relatedness (4 items) and intrinsic motivation (4 items). Participants responded to items such as I am willing to participate in this class activities (autonomy), I fully understand what I have been taught in this class, (competence), I enjoy studying with teachers and classmates in this class, (relatedness) and I study the lessons of this class because I like to learn new things, (intrinsic motivation) on 5-point scale. Carreira (2012) has reported cronbach's alpha for autonomy (0.84), competence (0.75), relatedness (0.78) and intrinsic motivation (0.91). In current study, these coefficients were 0.80, 0.81, 0.82 and 0.86, respectively.

Students perception of school culture based on Hofstede's cultural dimensions: To measure Hofstede's cultural dimensions, Sadeghi *et al.* (2013) questionnaire was used. Considering that this questionnaire has been designed to measure teachers perception of school culture, some changes have been made to be consistent with high school students sample. This scale is comprised of 16 items that measure four dimensions of school culture: Femininity (4 items), collectivism (4 items), uncertainty avoidance (4 items) and power distance (4 items). The sample items of this questionnaire were it is important to help others on the tasks (femininity), it is better to research in a group than as individuals (collectivism), If I am uncertain about the responsibilities of a task, I get very anxious (uncertainty avoidance) and In this school, the teachers make most decisions without consulting students (power distance). All items have been set based on 5 point Likert scale from completely incorrect (1-5). Sadeghi *et al.* (2013) have reported cronbach's alpha 0.76 for femininity, 0.71 for collectivism, 0.82 for uncertainty avoidance and 0.87 for power distance. Also in this study, these coefficients were 0.81, 0.82, 0.79 and 0.81, respectively.

RESULTS

The statistical analyses, in this study, include descriptive statistics and examination of research hypotheses.

Descriptive statistics of variables: Table 2 reports descriptive statistics of variables including mean, standard deviation, skewness and kurtosis. To ensure a fair level of normality of variables, Kline (2011) recommended that the skewness and kurtosis indices should not exceed |3| and |10|, respectively to ensure that univariate normality is achieved. Considering Table 2, the absolute values of these indices for all variables are <1. So in this study, univariate normality is achieved.

In Table 3, correlation matrix of variables has been reported. According to Table 3, the power distance, uncertainty avoidance and collectivism have significant and negative relationship with basic psychological needs, the relationship between femininity and needs is positive and significant. Academic achievement has positive relationship with basic psychological needs and intrinsic motivation. Also, the relationship between basic psychological needs and intrinsic motivation is positive and significant.

Examination of research hypotheses: Maximum Likelihood estimation (ML) has been used to examine research hypotheses and test the model. Because the use

Table 2: Descriptive statistics of research variables (n = 296)

Variables	Mean	SD	Skewness	Kurtosis
Power distance	3.32	0.96	-0.35	-0.45
Uncertainty avoidance	2.89	0.93	0.17	-0.58
Collectivism	2.86	1.03	0.07	-0.85
Femininity	3.05	1.08	-0.25	-0.87
Basic psychological needs	3.42	0.80	-0.48	-0.04
Intrinsic motivation	4.05	0.85	-0.92	0.52
Average academic achievement	16.05	2.29	-0.09	-0.97

Table 3: Correlation matrix of the research variables

Variables	1	2	3	4	5	6	7
Power distance	1						
Uncertainty avoidance	0.52**	1					
Collectivism	-0.30**	-0.26**	1				
Femininity	-0.22**	-0.29**	0.31**	1			
Basic psychological needs	-0.41**	-0.43**	-0.29**	0.36**	1		
Intrinsic motivation	-0.19**	-0.22**	0.02	0.15**	0.59**	1	
Academic achievement	-0.22**	-0.07	0.14*	0.05	0.40**	0.37**	1

*,**p<0.05 and 0.001, respectively

of ML estimation requires multivariate normality of the variables, the data for this study were examined with respect to multivariate normality. Multivariate normality was examined using Mardia's normalized multivariate kurtosis value. The Mardia's coefficient for the data in this study was 3.30, indicating multivariate normality of the data as the value was <63 computed based on the $p(p+2)$ formula, where p equals the number of observed variables in the model (Teo and Noyes, 2012).

In order to test the theoretical model, the criteria proposed by Gefen *et al.* (2000) were used. These include the following indices: X2/df in which values <3 are acceptable, Goodness of Fit Index (GFI) and Comparative Fit Index (CFI), in which values >0.9 indicate fitness of model; Adjusted Goodness of Fit Index (AGFI), in which values >0.8 are acceptable and Root Mean Square Error of Approximation (RMSEA), in which values <0.08 demonstrate fitness of model. Table 4, reports these indices.

Table 4 indicates that goodness of fit indices for tested model is higher than the values proposed by Gefen *et al.* (2000). Therefore, it can be concluded that tested model provides suitable fitness. The results of tested model are shown in Table 5. Considering this Table 6 of 7 hypotheses have been supported. All hypotheses related to SDT (i.e., positive effect of fulfillment of basic psychological needs on academic achievement and intrinsic motivation and also positive effect of intrinsic motivation on academic achievement) have been supported. From those hypotheses related to

Table 4: Goodness of fit indices for tested model

RMSEA	AGFI	CFI	GFI	X2/df	X2	df
0.07	0.93	0.97	0.98	2.61	18.30	7

Table 5: Results of examining research hypotheses

Hypothesis	Casual direction	β	t	p-value	Result
1	Intrinsic motivation >>academic achievement	0.19	2.99	0.003	Supported
2	Basic psychological needs>>academic achievement	0.29	4.51	0.001	Supported
3	Basic psychological needs>>Intrinsic motivation	0.60	12.89	0.001	Supported
4	Femininity>>basic psychological needs	0.22	4.13	0.001	Supported
5	Collectivism>>basic psychological needs	-0.10	-1.88	0.06	Not supported
6	Uncertainty avoidance >>basic psychological needs	-0.24	-4.04	0.001	Supported
7	Power distance>>basic psychological needs	-0.21	-3.67	0.001	Supported

Table 6: Direct, indirect and total effects and explained variance of variables

Routes	Direct effect	Indirect effect	Total effect	R ²
On academic achievement from				
Intrinsic motivation	0.19		0.19	0.19
Basic psychological needs	0.29	0.11	0.40	
Femininity		0.09	0.09	
Collectivism		-0.04	-0.04	
Uncertainty avoidance		-0.10	-0.10	
Power distance		-0.09	-0.09	
On intrinsic motivation from				
Basic psychological needs	0.59		0.59	0.35
Femininity		0.13	0.13	
Collectivism		-0.06	-0.06	
Uncertainty avoidance		-0.14	-0.14	
Power distance		-0.13	-0.13	
On basic psychological needs from				
Femininity	0.22		0.22	0.30
Collectivism	-0.10		-0.10	
Uncertainty avoidance	-0.24		-0.24	
Power distance	-0.21		-0.21	

the influence of student's perception of school culture on fulfillment of psychological needs, 3 hypotheses (i.e., negative effect of power distance and uncertainty avoidance and positive effect of femininity on this variable) have been supported. Finally, the hypothesis related to the effect of collectivism on fulfillment of psychological needs has not been supported. Figure 2 shows tested model of the research.

In Table 6, direct indirect and total effects and explained variance of variables have been reported. According to Table 6, fulfillment of basic psychological needs and intrinsic motivation, predicts 19% of variance in academic achievement. Basic psychological needs

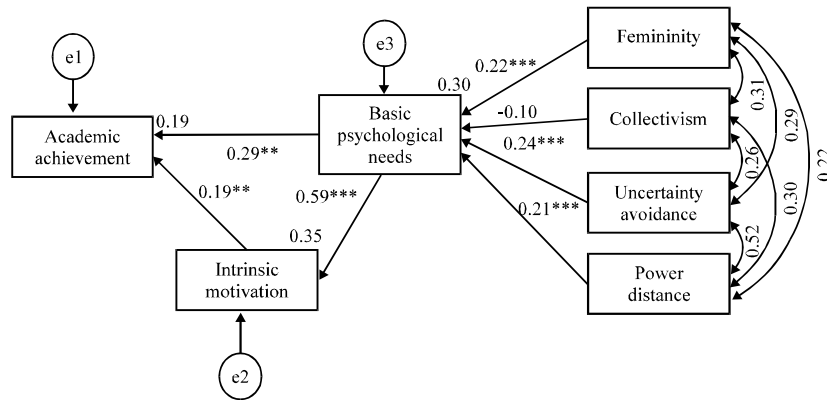


Fig. 2: Research tested model

explain 35% of variance of intrinsic motivation. And dimensions of power distance, uncertainty avoidance, collectivism and femininity explain 30% of variance in basic psychological needs.

DISCUSSION

The purpose of the present research was to examine the relationship between student's perception of school culture based on Hofstede's cultural dimensions with basic psychological needs, intrinsic motivation and academic achievement by means of path analysis. The results showed that constructs of the theory of self-determinate (i.e., fulfillment of basic psychological needs and intrinsic motivation) could predict academic achievement. Also, the results showed that student's perception of school culture could predict the rate of fulfillment of basic psychological needs.

Significant influence of fulfillment of the basic psychological needs and intrinsic motivation on academic achievement indicates that students who feel autonomy, improvement and competence for learning and doing their homework and have a friendly and intimate relationship in the classroom and more intrinsic motivation and innate interest in learning showed better academic achievement. This finding is consistent with theoretical base of the SDT which proposes that students fulfillment of basic psychological needs in the classroom, facilitates their self-regulation for learning, academic performance and well being (Niemiec and Ryan, 2009). The findings of the present research are consistent with the results of the researches by Aarepattamanni *et al.* (2011), Rashvanlou and Hejazi (2010), Marshik (2010), Ejei *et al.* (2009) and Hanze and Berger (2007). Based on the self-determination theory, fulfillment of basic psychological needs is influenced by the person's life environment, as well as his personality traits (Baard *et al.*, 2004).

In the present research, one of the most influential environmental factor, i.e., existing cultures at school is considered. The research findings showed that students perception of the school culture effects on psychological needs fulfillment. The research findings show that when students evaluate school environment femininely, this has positive effect on fulfillment of their psychological needs. Presence of social support and paying attention to the other's needs are the main characteristics of feminine cultures (Akour, 2006). Presence of social support at school leads students to have friendly relations with others and fulfill their need to relatedness. Meanwhile, this support causes them to select their own style and material of learning with more confidence and this, in turn has positive effect on their autonomy. Also, feeling freedom in selecting activities based on one's own ability and that one learns his/her interested material at school, causes him/her to have more competence. This finding about the positive effect of social support on fulfillment of basic psychological needs is consistent with research findings by Ghalavandi *et al.* (2013) and Sadeghi *et al.* (2013).

The research findings showed that when students perceived school environment with high uncertainty avoidance, it has negative effect on fulfillment of their basic psychological needs. When uncertainty avoidance is high, there are a lot of limiting norms and rules at school and school authorities have little confidence in future (Srite, 2000). Presence of limiting norms at school limits students innovations and has negative effect on their autonomy need. On the other hand, competence need has close relationship with the belief that the individual could perform a task well. Presence of limitation to do innovative tasks causes these students to feel inability doing such tasks which has negative influence on their competence need. On the other hand, many social norms in such

schools leads the students relations with each other to be systematic and become more like a role playing, it means that instead of having intimate relations with others, they just play a role dictated by culture which has a negative influence on the need to relatedness.

The research results showed that when students perceive school environment with high power distance, it has negative effect on fulfillment of their basic psychological needs. From the students point of view, presence of high power distance at school indicates the unequal distribution of power and in comparison to them, teachers have more power. This means that teachers make more decisions for them and have distance with them (Srite, 2000). Teacher's decision-making for students cause them to feel that they have less autonomy to select their way of learning and doing homework and this in turn has negative effect on fulfillment of need to autonomy and to accept that they do not have competence to decide for themselves. Additionally, not giving responsibility to perform their main tasks, leads fulfillment of competence need to be decreased. On the other hand, the presence of distance between teachers and students causes them to be less intimate with each other and their need to relatedness is overshadowed. The findings of this research are consistent with the results of a research by Sadeghi *et al.* (2013) in that they examined teachers.

The findings of the present research showed that collectivism do not have significant influence on fulfillment of basic psychological needs. Individualistic cultures put more emphasis on initiation which leads to support individuals autonomy by the environments. Collectivistic cultures provide more social support for the person and as it was indicated above, social support leads to fulfillment of psychological needs. Generally, the research findings put emphases on presence of autonomy, promotion of innovation and initiation, friendly relationship of teachers and students and valuating them as competent people and also social supporting at the school environment and its positive effect on students needs. These findings support the SDT and show that presence of supporting autonomy at school environment and in smaller environments like the classroom could have strong influence on students psychological needs. Since, STD theory has already ignored the effect of wide and more stable constructs like culture on students, these findings could be an expansion to it in education. Considering findings of the present research and statement of Hofstede *et al.* (2010) on relative stability of culture, it could be said that the rate of fulfillment of students psychological needs is influenced by flexible and relatively stable aspects of the environment and personality traits. Flexible aspects of the

environment includes the amount of teachers support for their students at the present time and its relatively stable aspect includes school culture that is inherited by students from previous generations has strong influence on students behavior style in that environment.

As it was mentioned, researchers consider the culture as relatively stable part of the environment that is almost sustainable against changes. Therefore to make the research results applicable, special attention should pay to the school principals role as macro decision-makers at school level. Regarding strong influence of the culture on students motivation at school, it is necessary for principals to consider the evaluation of school culture. If the school culture focuses on presence of cooperation and collaboration among students and teachers, high social support and promotes innovation and at the same time has less uncertainty avoidance and low distance, it is necessary for principals take action to maintain and improve such kind of culture. These actions could include improvement of collaboration among students, less focus on competition, creating teachers and students constructive comments space and also improvement of creativity and innovations. If school culture has less focus on collaboration and cooperation and there is high power distance and uncertainty avoidance, in addition of taking the earlier actions, it is essential for principals to try to create and improve confidence between teachers and students. In fact, confidence, gives feeling of being accepted as a constructive member of an organization. This causes the person to have a good and intimate cooperation with the organization, as well as creating positive emotions toward it.

CONCLUSION

The present research is the first one of this field, examining the relationship between school culture based on Hofstede's cultural dimensions and the student's basic psychological needs. To increase the generalizability of the results of this research, repetition of research with other groups of school and university students is recommended.

In this study, school culture was assessed in individual level and the results showed that students perception of school culture in the same school could be different, it could be said that several factors effect on these differences. Based on Hofstede's perspective, these factors could be classified into 2 groups: Personality traits and cultural values (Hofstede *et al.*, 2010). Personality traits indicate the people's innate tendencies to perceive a phenomenon and cultural values show presentation of society norms and values in the people's minds and both

of these factors affect the way of individuals perception and behavior. A research recommendation could be the examination of the way in which personality traits and cultural values effect on students perception of school culture. Also in this research, students beliefs earlier school culture were considered. So, other research recommendation is to examine the effect of culture of different schools on students basic psychological needs fulfillment by HLM. By using this method, the one can evaluate if culture of other schools could predict fulfillment of students psychological needs.

Since, this research is a correlation one researchers can infer cause and effect based on the theory but to study the effect of independent on dependent variable, researchers need experimental research. For example by using intervention methods, researchers could examine the effect of managerial methods of school principals, e.g., the rate of trust making improvement innovations and creativity and methods of increasing group involvement in changing school culture and students or teachers psychological needs. Since, the studied sample in the present research was high school students in Tabriz, Iran, generalization of the findings to the students of other cities and countries is limited.

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