

Achievement Motivations of the Students Studying at Computer and Instructional Technologies Teaching Department

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The aim of this research is to determine achievement motivations of the students studying at Computer and Instructional Technologies Teaching (CITT) Department. In this research, survey method is used. In the frame of this method, the existing situation about the achievement motivations of CITT students in Yüzüncü Yıl and Fırat Universities in Turkey is described. The population of the research includes 4th grade students of CITT departments at Yüzüncü Yıl and Fırat Universities. The sample of this research consists of 142 students in total-74 of them from CITT department at Fırat University (52.11% of population) and 68 of them from CITT department at Yüzüncü Yıl University (47.89% of population). Data were collected in the spring term of 2010. Achievement focused motivation (AFM) scale was used in this study. The levels of achievement of CITT students at Fırat and Yüzüncü Yıl universities in Turkey are between 3.41 and 4.20. The approximation of this level to 5 is required.

Introduction

Today, the rapid development of computer-based techniques, has led educators to new ways of theory and practice. As a result, Computer and Instructional Technologies Teaching (CITT), has emerged under the division of science, and in recent years it started to gain significance and identity with the development of multi-media and web technologies. CITT as a division of faculties of education in Turkey was opened in 1998 by The Council of Higher Education (ARICI, 2007; Akça-Üstündağ, 2009). The aim of CITT is to give actual information, gain basic information and skills about the profession and introduce the instructional environments to the computer teacher candidates who will teach at the primary and secondary schools in 2000s through making use of new Technologies. The aim of the course is to improve deficient material usage of information technologies, which is developing rapidly in schools and thus make the instruction more effective, as well as leading students towards technology such as; computer, internet, multimedia, TV, video and projectors, in instruction. Therefore, the computer teachers of 2000s will be educated with the knowledge of technology and thus will be able to make use of it effectively. Other aims of the CITT department are to develop methods, prepare instructional software for the effective and abundant usage of the educational technologies that are used in education foundations, and educate the staff to develop the educational properties of this software (METU, 2010). CITT

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enables the instructional specialists to educate individuals and to serve as: Teachers, instructional technologists, educational specialists, instructional designers, trainers and experts in educational computing (Boğaziçi University, 2010).

Considering all of the students including the ones in CITT department, they are all affected by the concept of motivation. Ryan and Deci (2000, 54) emphasized that "to be motivated means to be moved to do something. Also motivation is described as a goal-oriented behavior (Dilts, 1998), and in order to provide a behavioral tendency (Kast&Rozenzweig, 1985) there are pointed to be some questions that motivation is thought to be responsible for. These questions include; "why do people decide to do something, how long are they willing to sustain the activities and how much are they going to pursue it" (Dörnyei, 2001, 8).

As stated by Brown (1994), motivation is a term used to define the success or the failure of any challenging task. Motivation can be defined as "some kind of internal drive which pushes someone to do things in order to achieve something" (Harmer, 2001, 51). Achievement motivation is one's effort to be successful in a matter (Weinberg & Gould, 1995). The basic empirical facts about effects of individual differences in achievement motivation on behavior is focused on the new theory of motivation (Atkinson & Birch, 1974) and well-known empirical generalizations about the subsequent motivational effects of reward and punishment has also been covered.

Seltzer (1973) initiated a computer program for the theory and it is continually being extended and refined (Seltzer & Sawusch, 1974; Bongort, 1974). Moreover, Atkinson et al. (1977) stated some information about a computer program that is a theory of motivation.

"... We can turn that theory around on the method of measurement used in the empirical research over the years to provide the main source of most of the inferences that guided construction of the theory. It comes as no great surprise to us that a coherent theory of motivation evolved in the course of using thematic apperception to study and explain behavioral expressions of individual differences in motivation should also finally explain the stream of imaginative behavior that constitutes the standard and controversial measuring instrument. We already have that model in physics. The theory of heat explains the behavior of mercury in a thermometer (Atkinson et al. 1977, 3)".

Considering this information, Steers and Porter (1991, 6) think about three questions while discussing motivation: 1. what activates human behavior, 2. what directs or leads such behavior and 3. how this behavior is achieved or sustained. A great many of researchers have come to a conclusion that educators can and should actively motivate students to take parts in the learning process (Christophel, 1990; Ames, 1990; Jones & Jones, 1990). The teacher should give specific feedback concerning student progress is of vital importance in the learning process (Brophy, 1987; Jacobson, 1981; Bavetta, 1993). According to McMillan and Forsyth (1991) effective feedback should be specific and immediate. Intrinsic motivation is significantly increased by positive verbal feedback (Hodson, 1991; Wickwire, 1992), whereas it is undermined by negative feedback (Peck, 1971; Richards, 1991). Stamer (1995) put forward the fact that individual feedback given by the teacher would be more motivating than the ones given in a choral setting. Fraker (1993) believed that teachers can have a great impact on student motivation through their actions. Nevertheless, motivating students to learn is regarded as an important teacher property, although the tools to accomplish this task are not assigned enough importance.

Some variables of motivation are identified as; interest, success, etc. in order to influence the learning process used by teachers (Hunter, 1967). Stamer (1995) has also identified these variables of motivation which have been discussed in several research studies. Examinations

have shown that student motivation was higher when the teacher was to be willing, caring, and concerned with student progress (Stamer, 1995; Ray, 1992; Mergendoller & Packer, 1985; Frazier, 1985). Furthermore, a good disposition, tone of voice, use of encouraging language, and personal interest in each student are given to be the other important teacher characteristics and actions (Bartholomew, 1993; Baker, 1993; Matthews, 1991; Grossnickle&Thiel, 1988; Anderson &Greathouse, 1978).

Moving on to the topic of *need for achievement*, it is defined as “a tendency to strive for success in situations involving an evaluation of one’s performance in relation to some standard of excellence” (Atkinson, 1974, 207). Anderson and Evans (1976), for instance, made a measurement of Mexican American students’ self-efficacy of using social and academic states in order to see their motivational process within their educational life. As a result, they found out that the efficacy levels of Latin students were low, which was the reason of their low academic success. On the other hand, Rumberger and Larsen (1998) made use of the measurements of teachers which are about Latin students’ work habits and social contact to put forward the students’ motivation, and they found out that the students who were busier with their school became more successful.

As a person-centered factor, achievement motivation which can be scored high or low is generally known as a unidimensional structure (McClelland, 1988) and it is measured in an indirect way by means of grades and test results (Eaton &Dembo, 1997; Rumberger& Larson, 1998) that are not used completely in motivational process. Achievement motivation is, in fact, defined as multidimensional, including individual differences and orientation about learning (Wilkins&Kuperminc, 2010). Both intrinsic and extrinsic motivations are factors affecting achievement.

It is traditionally known that intrinsic motivation is a wish coming from inside to result in a behavior for enjoyment, satisfaction and interest. On the other hand, extrinsic motivation is about the behavior which is the consequence of external factors like money or praise (Berlyne, 1960; Hunt, 1965; White, 1959). It is a general belief that while intrinsic motivation increases learning, extrinsic motivation hinders deeper learning, and it is a concept explained by experimental studies.

In order to be successful and have achievement in all areas we want, ‘achievement motivation’ is needed; because, achievement goals have big effects on a person’s behaviors (Rabideau, 2006). These physiological motivational incentives are effective on our behaviors in different situations (Kürüm, 2007). Achievement motivation is the tendency to access an objective that requires effort successfully (Gürşimşek, 2002).

The aim of this research is to determine achievement motivations of the students studying at Computer and Instructional Technologies Teaching (CITT) Department. Considering this aim, sub-aims are as follows:

- (1) Is there a difference among the achievement motivations of the students of the CITT department in terms of gender?
- (2) Is there a difference among the achievement motivations of the students of the CITT department in terms of Yüzüncü Yıl and Fırat Universities?

Method

In this research, survey method is used. Within this method the existing situation about the achievement motivations of CITT students in Yüzüncü Yıl and Fırat Universities in

Turkey have been described. The population of the research includes senior class students of the CITT departments at Yüzüncü Yıl and Fırat Universities. The sample of this research consists of 142 students in total-74 of whom are from CITT department at Fırat University (52.11 percent of population) and 68 of whom are from CITT department at Yüzüncü Yıl University (47.89 percent of population). Data were collected in the spring term of 2010, and achievement focused motivation (AFM) scale was used within the study.

The scale was developed by Semerci (2010), it was applied to 827 students. The scale was applied on the students of Atatürk University (Erzurum), Cumhuriyet University (Sivas), Fırat University (Elazığ), Muş Alparslan University (Muş) and Yüzüncü Yıl University (Van) 4-factored structure (External effects, internal effects, growth of aim and self-conscious) was revealed in the scale. As a result, KMO value of AFM scale is found to be 0.911 and the value of Barlett test is found to be 7361.928 (Sd=595, P<.05). It is seen that after factor analysis, the scale provided 37.910% of the total variance. In the analysis results of AFM scale, item-total correlations changed between 0.36 and 0.58. Furthermore, in the study, 49 data-paired were applied and it was found out that test-retest correlation was 0.977 (p<0.01). Moreover, correlation coefficient between two halves points was 0.895(p<0.01) and Cronbach Alpha Coefficient of AFM scale was 0.896 (35 items) (Semerci, 2010).

Findings

84 of the students involved in the research were males while 58 of them were females. Moreover, 68 students from the CITT department of Yüzüncü Yıl University and 74 students from the CITT department of Fırat University participated in this research. The distribution of achievement motivation in terms of gender is given below in Table 1.

Table 1. The distribution of achievement motivation in terms of gender

Gender	N	Levene' Test for Equality of Variances	Mean	St. Dev.	t	p
External effects						
Male	84	0.35(p=.56)	4.11	0.58	2.52*	0.01
Female	58		3.87	0.59		
Internal effects						
Male	84	0.02(p=.88)	3.67	0.61	1.65	0.10
Female	58		3.50	0.63		
Growth of aim						
Male	84	0.19(p=.67)	3.76	0.71	1.45	0.15
Female	58		3.59	0.69		
Self-conscious						
Male	84	3.50(p=.06)	3.68	0.62	0.69	0.49
Female	58		3.60	0.81		
AFM(General)						
Male	84	3.28(p=.07)	3.81	0.47	1.95	0.06
Female	58		3.64	0.57		

*P<0.05 Df=140

When the distribution of achievement motivation is examined in terms of gender, no difference is generally found. Except from exterior effects in sub-dimensions of achievement-based motivation, in other dimensions (interior effects, enhancing attainment and self-conscious) no difference is found in terms of gender variable (Table 1).

Table 2. The distribution of achievement motivation according to Fırat and Yüzüncü Yıl Universities.

University	N	Levene's Test for Equality of Variances	Mean	St. Dev.	t	p
External effects						
Yüzüncü Yıl	68	3.37(p=.06)	3.89	0.68	-2.40*	0.02
Fırat	74		4.13	0.50		
Internaleffects						
Yüzüncü Yıl	68	0.02(p=.88)	3.52	0.60	-1.40	0.16
Fırat	74		3.67	0.64		
Growth of aim						
Yüzüncü Yıl	68	0.19(p=.67)	3.64	0.73	-0.78	0.44
Fırat	74		3.73	0.68		
Self-conscious						
Yüzüncü Yıl	68	3.50(p=.06)	3.56	0.72	-1.38	0.17
Fırat	74		3.73	0.68		
AFM(General)						
Yüzüncü Yıl	68	3.28(p=.07)	3.66	0,55	-1.85	0.07
Fırat	74		3,81	0,48		

*P<0.05 df=140

No difference was found between achievement motivations of the students at Yüzüncü Yıl and Fırat Universities. In addition, except from exterior effects in sub-dimensions of achievement-based motivation, in other dimensions (interior effects, enhancing attainment and self-conscious), no difference is found in terms of university variable (Table 2).

Lastly, it is an important point for the research that in achievement-based motivation, only in exterior effects there is statistically significant difference in terms of both gender and university variables. Most of CITT students have chosen the “totally agree” option between 3.41 and 4.20 average scores about their achievement motivation, therefore, this result reveals that achievement motivation levels of students are quite high.

Conclusion

The aim of this research was to determine achievement motivations of the students studying at the CITT department. Students are found to be motivated to learn when they thought the learning task was meaningful and interesting and when they were successful at completing learning tasks (Blumfield, 1992; McMillan & Forsyth, 1991; Gordon, 1989; Nicholls, 1989). Moreover, interesting tasks turned out to enhance their intrinsic motivation to learn (Lepper & Hodell, 1989). Brophy (1987) and Malone & Lepper (1987) encouraged teachers to change tasks to students' interests to arouse and develop motivation. Besides, educational competence, school belonging and participation of parents all found to be effective in the achievement motivation in a positive way (Ibanez, 2004).

In modern societies, the teaching profession is expected to be fulfilled in great enthusiasm (Ozankaya, 2002). In addition teaching is described as a profession that requires a big heart and love (Okçabol, 1998). When CITT students' expectations of the profession were examined, the highest is observed in the first grade while the other grades are getting lower (Arıcı, 2007). In addition, the expectation levels of the profession of those who preferred the department willingly are found to be high. Students with high level of expectations are expected to have high achievement motivation, too. In this study, CITT students' achievement motivation hasn't been found at the highest level.

Furthermore, No differences were found between genders in terms of satisfaction towards the

department (Haliloğlu-Tatlı&Ursavaş, 2009). Considering that there is a positive relationship between satisfaction and the achievement motivation or has been accepted, a similar result can also be said to be found in this study. In this study, there has been no difference except for a small exception among the achievement motivation of CITT students by sex. This exception is related to the size of achievement motivation. There is a statistically significant difference between male (Mean: 4.11, St.dev.: 0.58) and female (Mean: 3.87, St.dev.: 0.59) students in the sub-size of external effects. The reason of this situation may be attributed to the socio-economic differences in Turkey.

When motivation increases, job satisfaction also increases (Ipek, 2006). Moreover, having motivated teachers attend professional training more than they benefit from professional services as they will be more successful in their profession (Sener, 2009). From this respect it can be concluded that as the achievement motivation increases, so will the CITT students love to learn more.

The levels of achievement of CITT students in Fırat and Yüzüncü Yıl universities in Turkey are between 3.41 and 4.20. The approximation of this level to 5 is required. Therefore, employment conditions of the graduates of the department in order to become formatter of information technology teachers (Karal&Timuçin, 2010) should be improved and so achievement motivations can be increased.

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