Learning Motivation of Teacher Candidates

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Abstract: The aim of this study is to examine whether the motivation level of recruited students differs in accordance with their sexes, success and department. The descriptive research method was used for the study, the population of which was composed of the recruited students in various Education Faculties from ten universities in country. 673 of the recruited students were female and 471 were male 475 of them were in the 1st grade and 424 were in the 4th grade and another 231 were doing a master program. A questionnaire was established for the purpose of obtaining the data required for the study. In conclusion, It was determined that motivation-related sub-factors showed a difference with respect to different variables. Motivation levels of the recruited students in respect of the first factor (Cognitive and life-long learning purposes) were found to differ according to their departments. As to the second factor (Negative factors for learning), there was a difference according to the sex of the students and male students were affected more negatively. There were also differences among the other variables regarding the same factor. Unsuccessful recruited students were affected more negatively than did successful ones. Motivation levels of the recruited students in respect factors were found to differ according to their departments, sexes and their success.

Key words: Motivation • Learning motivation • Teacher education

INTRODUCTION

Motivation is valuable to explain causes of behavior, predicting effects of actions and directing behavior to achieve goals. Certain kinds of students are more motivated than others and if so, in what ways and why? Do some courses, assessment systems or teaching methods increase or diminish motivation or is it more a matter of persons and their attitudes? Teachers and psychologists have considered and investigated motivation in some depth, although characteristically members of different schools of thought describe it in different ways. Members of the cognitive school tend to speak in terms of drives, goals and needs of the learner which prompt him to action, whereas those of abehaviorist orientation talk of an increase in the level of an organism following reinforcement in a situation, such as incentive or intrinsic satisfaction. According to most definitions, motivation consists of three basic components that activate, direct and sustain human behavior. Motivation is defined as the complex forces, drives, needs, tension, states or other mechanisms that

start and maintain voluntary activity toward the achievement of personal goals [1].

Motivation has frequently been described as having three psychological functions: a)energizing or activating behavior that which gets students engaged in or turned off learning, b) directing behavior-why one course of action is chosen over another and c) regulating persistence of behavior-why students persist toward goals [2].

Motivation can be inferred from behavioral indicators. One indicator is choice of tasks or interests. When students have a task, they choose to do what they are motivated to work on. A second indicator is effort. Learning often is not easy. Students motivated to learn are apt to expend effort to succeed. For motor tasks the effort is physical [3, 4]. The third indicator is persistence, or time spent on a task. Students who motivated to learn ought to persist at the task, especially when they encounter obstacles. Persistence is also used by researchers as a measure of motivation [5]. And achievement may be viewed as an indirect index of motivation. Students who choose to engage in a task,

expend effort and persist are likely to achieve at a higher level [6].

Why motivation is important for learning: Motivation is important not only because it apparently improves learning but also because it mediates learning and is a consequence of learning well. Instructors have known that when learners are motivated during the learning process, things go more smoothly, communication flows, anxiety decreases and creativity and learning are more apparent. Instruction with motivated learners can actually be joyful and exciting, especially for instructors. Although motivation is a necessary condition for learning, there are other factors like ability and quality of instruction that are also necessary for learning to occur [7]. Successful learning and performance requires the executive control process available [8].

Brookfield [9] emphasizes the need for a culturally relevant perspective of adult learning: the differences of class, culture, ethnicity and personality, cognitive style, learning patterns, life experiences and gender among adults are far more significant than the fact that they are not children.

According to motivational theories, it is part of human nature to be curious, to be active, to initiate thought and behavior, to make meaning from experience and to be effective in what we value [7].

Cognitive theories of achievement motivation assume that a behavior is determined by an individual's beliefs, not simply by whether the individual has been rewarded or punished for the behavior in the past. These theories emphasize individuals' interpretation of events, not the events themselves. Achievement motivation theories emphasis beliefs as mediators of behavior, but they differ with regard to the particular beliefs they emphasize. Atkinson's expectancy x value theory focuses on students' expectations for success and their achievement related values. Weiner [10] is concerned with beliefs about the cause of achievement outcomes and Rotter emphasizes beliefs about the contingency of reward. The theories also differ in the degree to which emotions are explicitly considered to play a major role for motivation [11].

Haugen and Lund [12] investigated how achievement motives and incentive values are related to attribution. As a result, a positive relation was found between value and attribution for each event. Success-oriented persons attribute both positive and negative events more optimistically than failure-avoidant persons.

Uguroğlu and Walberg [13] performed a benchmark analysis of 232 correlations of motivation and academic

learning reported in forty studies with a combined sample size of approximately 637.000 students in first through twelfth grades. They found that 98 percent of the correlations between motivation and academic achievement were positive. These researchers found that the relationship between motivation and learning increased along with the age of the students, with the highest correlations being in the twelfth grade.

Thornton et al. [14] soughtthe views of many students who had been successfully recruited to primary initial teacher education courses, both undergraduate and postgraduate in England. A questionnaire survey was conducted for 1611 recruited primary students. The questionnaire asked students the importance of reasons for: wanting to become a teacher; not wanting a job other than teaching; the influences on them in deciding to embark on their training course. Results showed that; recruited students had a predominantly positive view about primary school teaching as a career. Their motivations towards teaching, the attractions, need to be disseminated widely to encourage others; the positive experiences of schools, classrooms and teachers that led these students into teaching should be made more widely available to others who might also be encouraged to join the profession.

The challenging question of this study is: "Does the motivation level of recruited students differ in accordance with their sexes, success and department?" Answers to the following questions were particularly sought in light of this problematical question.

- Does the motivation level of candidate teachers differ according to their sex?
- Does the motivation level of candidate teachers differ according to their success?
- Does the motivation level of candidate teachers differ according to their department?

MATERIALS AND METHODS

The descriptive research method was used for the study, the population of which was composed of the recruited students in various Education Faculties in country.

Participants: Sampling groups were established for the universities in Country according to their overall distribution across different geographical regions and their size. Ten universities representing these groups were randomized. Recruited students in 1st and 4th grades as well as students doing a master program without

dissertation in the selected universities were randomized in such a way that they would represent all departments of Education Faculties. 673 of the recruited students were female and 471 were male. 475 of them were in the 1st grade and 424 were in the 4th grade and other 231 were doing a master program without dissertation.

Measures: A questionnaire was established for the purpose of obtaining the data required for the study. Preparation of the questionnaire was based on the study by Acat and Demiral [15]. It was reoriented for the recruited students in Education Faculties. In order to verify the validity of the adapted questionnaire, viewpoints of the experts were sought, as a result of which necessary alterations were made. Likewise, in order to verify the reliability of the questionnaire, the test re-test method was applied to the same group at two-week intervals. Correlation coefficients were determined between the application results. 0,05 was deemed as significant, while 0,40 and over was deemed as representing high consistency of the items. The items that did not achieve this level of significance were removed. Also, a significant correlation was sought between the results of the two separate applications. Items that did not show a significant difference at 0,05 and thus validity of each item was tested. Each of the items was studied for the intrinsic consistency of the questionnaire to determine the overall correlation. The items achieving levels of 0,40 and over were included in the questionnaire. In order to verify the reliability of the test, Cronbach alpha was calculated and was found to be 0,92. These analyses confirmed the reliability of the questionnaire. A factor analysis was computed to verify the validity of the structure of the questionnaire, as a result of which factor loadings for each item were determined. The factor loadings of items achieving levels of 0,40 and over were included in the study. The factors obtained were determined to account for 54% of the variance. The items were categorized into four basic factors as a result of the conversion. Following are the four basic factors determined upon the analysis of the items;

- Factor: Cognitive and lifelong learning goals
- Factor: Negative factors for learning
- Factor: Extrinsic motivation
- Factor: Intrinsic motivation

These results were found to be in agreement with the categorization with regard to motivation. Validity of the questionnaire was confirmed based on these results. 6 questions were included in the first part of the study to

test the individual information of the respondents. 23 items were included in the second part to determine the resources of motivation and relevant problems.

Procedure: The questionnaire was delivered to ten universities selected for the study among the universities in country through the postal service, together with the application directives. The forms prepared for the responses of the subjects in accordance with the application directives were also collected through the postal service. The data obtained were analyzed through a computer package program. Arithmetical averages and standard deviations were calculated for the analysis of the data. Determination of whether significant differences occurred between variances was tested through t test and variance analysis techniques.

RESULTS

Measuring means consisted of four factors for determining motivation levels of recruited students in relation to teacher training. They were as follows;

- Factor: Cognitive and Lifelong Learning goals (CLL)
- Factor: Negative Factors for Learning (NFL)
- Factor: Extrinsic Motivation (EM)
- Factor: Intrinsic Motivation (IM)

Means of the items constituting these factors were obtained. The question is whether or not these means of the students differed in accordance with their sex, success, departments and income levels of their families and to the level of the schools where they are supposed to teach in the future. The results obtained have been presented under different headings considering these independent variances. Whether the means of the students regarding motivation-related factors differed according to their sex was tested through the t test method and the results have been presented in Table 1.

For the first factor, no significant differences were determined among the means of the scores for "Cognitive and life-long learning purposes" in $[t_{(1142)} = 1,693 \text{ p}>,05]$. We, therefore, can say that there is no significant difference between cognitive and life-long learning purposes of the female recruited students and those of males.

For the second factor, there was a significant difference between the means of the sexes regarding "Negative factors for learning" [$t_{(1142)}$ =-4,556 p<0.01]. Means of "Negative factors for learning" for females were statistically lower than those of the males (\overline{X} = 2,26

Table 1: The motivation level of candidate teachers according to their sexes

Factors	Sex	N	Mean	SD	df	t	P
CLLG	Female	673	3.53	0.628	1142	1.693	0.091
	Male	471	3.47	0.641			
NFL	Female	673	2.26	0.650	1142	-4.556	0.000**
	Male	471	2.44	0.666			
EM	Female	673	4.40	0.566	1142	3.892	0.000**
	Male	471	4.26	0.615			
IM	Female	673	3.96	0.726	1142	5.451	0.000**
	Male	471	3.71	0.793			

Table 2: Means and SDs of motivation level of teacher candidates according to their success

	Sucess groups	N	Mean	SD
CLLG	1. Unsuccess	38	3.37	0.658
	2. Less success	285	3.47	0.668
	3. Average suc.	482	3.56	0.595
	4. Successfull	261	3.49	0.630
	5. Much success	78	3.41	0.721
NFL	1. Unsuccess	38	2.88	0.871
	2. Less success	285	2.38	0.638
	3. Average suc.	482	2.33	0.633
	4. Successfull	261	2.23	0.666
	5. Much success	78	2.32	0.675
EM	1. Unsuccess	38	4.21	0.544
	2. Less success	285	4.31	0.658
	3. Average suc.	482	4.36	0.593
	4. Successfull	261	4.36	0.520
	5. Much success	78	4.38	0.549
IM	1. Unsuccess	38	3.25	0.856
	2. Less success	285	3.75	0.785
	3. Average suc.	482	3.90	0.744
	4. Successfull	261	4.01	0.682
	5. Much success	78	3.78	0.831

and $\overline{\chi}=2$, 44, respectively). We can, therefore, assume that female recruited students confront negative factors for learning less frequently than do males and that male recruited students have problems with negative factors.

For the third factor, there was a significant difference between the means of the sexes of the recruited students in relation to extrinsic motivational factors [$t_{(1142)} = 3,892$ p<,01]. Means of extrinsic motivational factors of female recruited students were determined to be higher than were those of the males ($\overline{X} = 4,40$ and $\overline{X} = 4,26$, respectively). We can, therefore, assume that female recruited students have higher extrinsic motivational factors than males.

As to the fourth factor, there was a significant difference between the means of the sexes of the

recruited students in relation to intrinsic motivational factors [$t_{(1142)} = 5,451$]. Means of intrinsic motivational factors of female recruited students were determined to be higher than were those of the males ($\overline{X} = 3,96$ and $\overline{X} = 3,71$, respectively). We can, therefore, assume female recruited students have higher intrinsic motivational factors than males.

Average academic success scores of the recruited students were categorized into five groups. Variance analysis was used to determine whether means of the motivation-measuring factors between these groups differed significantly and the results have been presented in Table 2 and 3.

No significant relationship was found among the means of the first factor in terms of success groups "Cognitive and life-long learning purposes" $[F_{(4-1139)} = 1,693 \text{ p}>,05]$. We can therefore, assume that the candidate cognitive and life-long learning purposes of recruited students does not show a difference according to their success levels.

There was a significant difference among average points of success groups regarding "Negative factors for learning", that is, the second factor. $[F_{(4-1139)} = 8,775]$ p<0.01]. According to the tukey test method, which was applied in an attempt to determine between which groups the difference was present, the means of the 1st group in relation to "Negative factors for learning", were higher than those in the other four groups (1st group; $\overline{X} = 2.88$, 2^{nd} group; $\overline{X} = 2.38$, 3^{rd} group; $\overline{X} = 2.33$, 4^{th} group; $\overline{X} = 2.33$ 2,23 and 5th group; $\overline{X} = 2,32$, respectively). We, therefore, can assume that the weakest group (1st group) are affected more by negative factors for learning and thus have more negative learning motivations. No significant difference was found among the means of the success groups regarding the third factor (Extrinsic Motivation) $[F_{(4-1)39}]$ = 0.917 p > 0.05].

There was a significant difference among means of the success groups regarding the fourth factor (Intrinsic Motivation) $[F_{(4-1139)} = 10,764 \text{ p} < 0.01]$. According to the

Table 3: The Motivation level of candidate teachers differs according to their success

		Sum of squares	df	Mean square	F	Sig.	Tukey	HSD
CLLG	Between groups	2.966	4	0.741	1.852	0.117		
	Within groups	456.050	1139	0.400				
	Total	459.016	1143					
NFL	Between groups	14.986	4	3.747	8.775	0.000**	1-2	1-5
	Within groups	486.336	1139	0.427			1-3	
	Total	501.322	1143				1-4	
EM	Between groups	1.277	4	0.319	0.917	0.453		
	Within groups	396.792	1139	0.348				
	Total	398.069	1143					
IM	Between groups	24.281	4	6.070	10.764	0.000**	1-2	1-5
	Within groups	642.351	1139	0.564			1-3	
	Total	666.633	1143				1-4	

Table 4: Means and SDs of motivation level of candidate teachers according to their department

	Departments	N	Mean	SD
CLLG	PST	211	3.60	0.620
	ST	331	3.35	0.663
	MT	190	3.45	0.574
	LT	146	3.63	0.551
	SST	207	3.65	0.641
	CETT	59	3.36	0.640
NFL	PST	211	2.33	0.659
	ST	331	2.27	0.654
	MT	190	2.43	0.638
	LT	146	2.39	0.684
	SST	207	2.26	0.661
	CETT	59	2.58	0.667
EM	PST	211	4.42	0.487
	ST	331	4.32	0.595
	MT	190	4.35	0.605
	LT	146	4.21	0.671
	SST	207	4.40	0.604
	CETT	59	4.32	0.535
IM	PST	211	3.98	0.664
	ST	331	3.86	0.721
	MT	190	3.69	0.781
	LT	146	4.02	0.653
	SST	207	3.86	0.855
	CETT	59	3.53	0.978

Tukey test method, which was applied in an attempt to determine between which groups the difference was present, means of the 1st group in relation to "Intrinsic motivation", were lower than those in the other four groups (1st group; $\overline{X}=3,25,2^{nd}$ group; $\overline{X}=3,75,3^{rd}$ group; $\overline{X}=3,90,4^{th}$ group $\overline{X}=4,01$ and 5th group; $\overline{X}=3,78$, respectively) Students with lower success

were determined to have less intrinsic motivation than the others.

Departments of the recruited students were categorized into 6 groups (1st Group: Primary School Teaching (PST), 2nd Group: Science Teaching (ST), 3nd Group: Mathematics Teaching (MT), 4th Group: Literature Teaching (LT), 5th Group: Social Science Teaching (SST), 6th Group: Computerized Education Technology Teaching (CETT). A variance analysis was used to determine whether a significant difference was present among the means of the motivation-measuring factors of these groups and the results have been presented in Table 4 and 5.

There was a significant difference among the means of the departments regarding the first factor (Cognitive and Life-long learning purposes) [$F_{(5-1138)} = 9,668 \text{ p} < 0.01$]. According to the Tukey test method, which was applied in an attempt to determine between which groups the difference was present, the means of ST (2) and ($\overline{X} = 2,88$) CETT (6) ($\overline{X} = 2,38$) were lower than those of PT (1) ($\overline{X} = 2,33$), LT (4) ($\overline{X} = 2,23$) and SST (5) ($\overline{X} = 2,32$). We can, therefore, assume that recruited students in Departments of ST and CETT have lower motivation in relation to "Cognitive and Life-long learning purposes".

There was a significant difference between the means of the six departments in relation to the second factor (Negative factors for learning) [$F_{(5-1138)} = 3,789 \text{ p} < ,01$]. According to the Tukey test method, which was applied in an attempt to determine between which groups the difference was present, the means of recruited students in CETT (6) ($\overline{X} = 2,88$) were higher than those in departments of PT (1) ($\overline{X} = 2,38$), ST (2) ($\overline{X} = 2,38$) and SST (5) ($\overline{X} = 2,38$). We can, therefore, assume that recruited students in CETT have more negative factors for learning in comparison with those in the other departments.

Table 5: The motivation level of candidate teachers differs according to their department

		Sum of squares	df	Mean square	F	Sig.	Tukey
CLLG	Between groups	18.704	5	3.741	9.668	0.000**	2-1; 2-4
	Within groups	440.312	1138	0.387			2-5; 6-1
	Total	459.016	1143				6-4; 6-5
NFL	Between groups	8.209	5	1.642	3.789	0.002**	6-1; 6-2
	Within groups	493.113	1138	0.433			6-5
	Total	501.322	1143				
EM	Between groups	5.137	5	1.027	2.975	0.011*	1-4
	Within groups	392.933	1138	0.345			
	Total	398.069	1143				
IM	Between groups	18.967	5	3.793	6.665	0.000**	6-2; 6-4
	Within groups	647.666	1138	0.569			6-5; 6-1
	Total	666.633	1143				3-1; 3-4

There was a significant difference among the means of the departments regarding the third factor (Extrinsic motivation) [$F_{(5-1138)} = 2,975 \text{ p} <, 05$]. According to the Tukey test method, which was applied in an attempt to determine between which groups the difference was present, average points of recruited students in PT (1) ($\overline{X} = 2,88$) were higher than those in department LT (4) ($\overline{X} = 2,23$). We can, therefore, assume that recruited students in PT have higher extrinsic motivations in comparison with those in LT.

There was a significant difference among the means s of the departments regarding the third factor (Intrinsic motivation) [$F_{(5-1138)}=6,665$ p<, 01]. According to the Tukey test method, which was applied in an attempt to determine between which groups the difference was present, the means of recruited students in MT (3) ($\overline{X}=2,88$) and CETT (6) ($\overline{X}=2,38$) were lower than those in departments of PT (1) ($\overline{X}=2,33$), ST (2), ($\overline{X}=2,33$), LT (4) ($\overline{X}=2,23$) and SST (5) ($\overline{X}=2,32$). We can, therefore, assume that recruited students in MT and CETT have lower intrinsic motivations in comparison with those in the other departments.

DISCUSSION

Female recruited students were determined to have higher motivations than male recruited students in 3 of the 4 factors in relation to their motivation levels. This leads us to think that female recruited students have many more teaching-oriented learning motivations than males due to the features of the role of their sex regarding school-oriented culture. School and learning environments seem to confirm the type of behavior which agrees with the authority restricted by rules. As far as behavior in relation to the roles of the sexes is concerned, features of school

and class environments seem to be in agreement with the sex roles of girls, bearing in mind the fact that women have tendency to develop positive attitudes towards such environments. As to male recruited students, they tend to have lower learning-related environments motivations because they seem to think of teaching as only the second or the third choice career option. In the USA, the proportion of male recruits to teaching, come to it later in life, as a second or third choice career option, when they were disillusioned with their first choice [16]. Also, the tendency of females to assume parental responsibility more than do males may have a role in increasing their motivation levels when choosing teaching as a profession. We also think that the tendency of males to perceive teaching as a career for females may have caused a decrease in their motivation levels when choosing teaching as a profession. Female students attached greater importance to parental responsibilities than male students [16].

We concluded, as a result of the analyses, that recruited students with lower success levels had lower intrinsic motivation levels. When success and motivation are evaluated together, positive attitudes developed for a certain situation seem to have a positive effect upon increasing motivations for this situation. Also, this may help obtain positive and success-oriented results for this particular situation. Based on this assumption, positive attitudes intrinsically developed by successful students in relation to a teaching career seem to increase their motivation levels and thus enable them to have such positive results as high marks. Haugen and Lund [12] found that their research about achievement motives, incentive values and attribution support our findings. A positive relation was found between value and attribution for each event kind. Success-oriented persons attribute positive events more externally than failure-avoidant persons. Furthermore, the fact that successful students develop learning strategies and study habits by discovering themselves and their learning features may intrinsically motivate them. Lin et al. [17] found higher levels of intrinsic motivation are positively related to grades. Covington [18] indicated that extrinsic motivation is not necessarily incompatible with intrinsic motivation. We can assume that cognitive learning levels do not change life-long purposes and that there is no significant difference between them. Academic success level, which is considered to be an indication of cognitive learning levels, may account for this result. Teachers need not eliminate all motivation for good grades in order to achieve both cognitive and lifelong learning goals.

Recruited students in CETT were found to have lower incentives for teaching than those in Primary School Teaching (PST), Science Teaching (ST), Mathematics Teaching (MT) Literature Teaching (LT) and Social Science Teaching (SST) with regard to the first, the second and the fourth factors. We think the reason for the higher motivation levels of the recruited students in CETT could be that these students wish to adopt another career on computers rather than teaching as their career. We also think that the reason for their lower motivation levels in relation to cognitive and life-long learning purposes could be that they attach importance to taking jobs where they can take advantage of their computer-related skills in preference to teaching. As for intrinsic motivation, lower motivation levels of recruited students in CETT and MT could be due to their tendency to attach more importance to computer-related and mathematical skills. Recruited students in PST were different from those in CETT and MT in that they had higher incentives for teaching. We attribute this to the fact that recruited students in PST cannot work in such fields as mathematics, science and computers apart from their own and thus focus on their field might be effective in their having higher incentives.

The fact that there are fewer opportunities for recruited students in the Department of Science Teaching to get a job in schools as science teachers after graduation in our country may account for their lower incentives with respect to life-long purposes. The number of prospective teachers of science who graduate from different universities in country every single year varies between 3000 and 5000. However, only 10% of them can be recruited in schools due to overstaffing, which we think causes them to have lower incentives in relation to their cognitive and life-long purposes.

In conclusion, It was determined that motivation-related sub-factors showed a difference with respect to different variables. Motivation levels of the recruited students in respect of the first factor (Cognitive and life-long learning purposes) were found to differ according to their departments. They are supposed to teach. We determined that the difference regarding this factor was related with mostly field of work.

As to the second factor (Negative factors for learning), there was a difference according to the sex of the students and male students were affected more negatively. There were also differences among the other variables regarding the same factor. Unsuccessful recruited students were affected more negatively than did successful ones.

Regarding extrinsic motivation, there was a difference between the sex variable and departments of students. Female students had higher extrinsic motivation levels.

With respect to intrinsic motivation, female students were found to have higher motivations. As far as the success variable is concerned, students with lower success levels were found to have lower intrinsic motivations. Furthermore, recruited students in Departments of MT and CETT had lower intrinsic motivations in respect of their field of work.

SUGGESTIONS

Based on these results, we wish to raise the following suggestions in relation to teacher training;

- Recruited students in Science Teaching should be encouraged to better clarify their teaching-related learning purposes.
- Further studies should be conducted into both determination and prevention of negative factors for learning environments.
- Measures should be adopted in an attempt to increase social statuses of teachers and to more enthusiastically encourage male students to choose teaching as a profession.

REFERENCES

- 1. Steers, R.M. and L.W. Porter, 1979. Motivation and Work Behavior. New York: Mc Graw Hill.
- Ford, M.E., 1992. Motivating Humans: Goals Emotions and Personal Agency Beliefs. Newbury Park, C.A: Sage. Alderman Kay. Motivation for Achievement.

- 3. Brophy, J.E., 1983. Conceptualizing Student Motivation. Educational Psychologist, 75 (5): 200-215.
- Corno, L. And E.B. Mandinach, 1983. The Role of Cognitive engagement in Classroom Learning and Motivation. Educational Psychologist, 18: 88-108.
- Zimmerman, B.J. and J. Ringle, 1981. Effects of model persistence and statements of confidence on children's self efficacy and problem solving. Journal of Educational Psychology, 73 (1): 485-493.
- Pintrich, P.R. and B. Schrauben, 1992. Students' Motivational Beliefs and Their Cognitive Engagement in Classroom tasks. In: Schunk, D. and J. Meece (Eds.). Student perception in the classroom: Causes and Consequences, Hillsdale, NJ: Erlbaum, pp: 149-183.
- Wlodkowski, R., 1999. Enhancing Adult Motivation to Learn: A comprehensive Guide for Teaching All Adults. San Francisco: Josses-Bass.
- 8. Tuckman, B.W., D.A. Abry and D.R. Smith, 2002. Learning and Motivation Strategies: Your Guide To Success. New Jersey: Prentice Hall.
- Brookfield, S.D., 1996. Adult Learning: An Overview. In Tuijinman, A.C. (Ed). International Encyclopedia of Adult Education And Training. 2nd Edn. New York: Pergamon Press.
- Weiner, B., 1995. Judgments of responsibility: A foundation for a theory of social conduct. New York: Guilford.
- 11. Stipek, D.J., 1988. Motivation To Learn From Theory To Practice. Los Angeles: Allyn and Bacon.

- Haugen, R. and T. Lund, 2000. Achievement Motives, Incentive Values and Attribution. Scandinavian Journal of Educational Research, 44 (3): 423-432.
- Uguroglu, M. and H.J. Walberg, 1979. Motivation and Achievement: A Quantitative Synthesis. American Educational Research Journal, 16 (5): 375-389.
- 14. Thornton, M., P. Briecheno and I. Reid, 2002. Students' reasons for wanting to teach in primary school. Research in Education, 67 (2): 33-43.
- Acat, M.B. and S. Demiral, 2002. Türkiye'de yabancı dil Öğreniminde Motivasyon Kaynakları ve Sorunları. Kuramdan Uygulamaya Eğitim Yönetimi, 8 (31): 312-329.
- Williams, L.S. and W.J. Villemez, 1993. Seekers and finders: Male entry and exit in female-dominated jobs. In: Williams, C.L. (Ed.). Doing Women Work. London: Sage.
- 17. Lin, G., W. Mc Keachie and Y. Kim, 2002. College student intrinsic and extrinsic motivation and learning. Learning and Individual Differences, 13 (3): 251-258.
- 18. Covington, M., 2000. Goal theory, motivation and school achievement: An integrative review. Annual Review of Psychology, 51 (1): 171-200.