The Investigation Of Relationship Between Teacher Candidates' Goal Orientations And Epistemological Beliefs

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ABSTRACT
Individuals' subjective beliefs about knowledge is defined as an epistemology. Epistemological beliefs of individuals has the potential in developing the curriculum. A motivational approach that attempts to explain the purpose of learners' participation in teaching activities is called goal orientation. Learners' goals of participating in teaching activities affect ways of participation to learning activities, participation levels and maintaining level of participation. The purpose of this study is to examine the relation between teacher candidates' goal orientations and the belief that learning depends on effort. In this study, correlation method was used. The achievement goal orientation scale and the scale of belief that learning depends on effort, which is the subscale of the epistemological belief scale. The data are collected from 161 teacher candidates. Pearson Product Moment Correlation and stepwise regression analysis method were used in data analysis. The results of the study showed that there was positive and significant correlation between belief that learning depends on effort, learning orientation and performance-orientation approach. On the other hand, there is no significant correlation between performance-avoidance orientation and belief that learning depends on effort.

Keywords: epistemological belief, achievement goal orientation, teacher training

INTRODUCTION
Epistemological belief implies that what the knowledge is, how it is acquired, its clarity level, constraints, assumptions that the individuals possess about its obtainment criteria (Perry, 1981). From that point, epistemological beliefs can be told as five dimensions which are structure of knowledge, its origin, clarity, rapidness of its obtainment and its control (Schommer, 1990). The faith of the people who have improved epistemological beliefs is high that the knowledge is complicated instead of being simple, changing instead of being constant, the learning is realized in course of time not on a sudden and the ability is not by born, but improves in advance (Deryakulu, 2004).

The scale about acquiring the epistemological belief levels of the university students is developed by Schommer (1990). That scale is adapted to Turkish by Deryakulu and Büyüköztürk (2002). At the end of the study, it is found that the scale has a structure with three factors. These are 'belief that learning depends on effort (BLDE) 'belief that learning depends on ability (BLDA)' and 'the belief that true is one (BTO)'. It can be stated that BLDE of those factors is a sophisticated epistemological beliefs while the others are naive epistemological beliefs. Effort is internal and at the same time has a controllable by the individual (Gredler, 2001). It is an important factor in active learning. Because students actively participate learning process and spend effort to learn new skills. To apply active learning methods in their classroom teachers must believe learning depends on effort. For that reason, it is required to improve BLDE of teacher candidates.

In that research, the BLDE of teacher candidates is identified as a dependent variable and it is researched that the achievement goal orientations of those candidates has an effect on their BLDE or not.

While learning-oriented students consider the aim of school as the acquisition of skills that will be taught, performance-oriented students think that as obtaining positive judgments about themselves or avoiding negative judgment (Slavin, 2000). In this context, students may be learning-oriented, performance approach and avoidance-oriented according to their achievement goal orientations. While learning-oriented students prefer activities that let them learn something new, performance approach-oriented ones prefer activities that cause to demonstrate their ability to others. The students with performance avoidance orientation refrain from activities that are going to demonstrate that they have low ability (Ormrod, 2006).

Ames & Archer (1988) and Harackiewicz, Barron, Tauer, Carter and Elliot (2000) have found that students with mastery goal orientation more use deep learning strategies (Arslan, Usta and Sahiner, 2012) and attitude toward class than students with performance goal orientations. Mastery goal orientated students prefer challenging tasks. They attribute success to effort. Performance goal orientated students attribute failure to ability (Ames and Archer, 1988; Graham & Golon, 1991; Gredler, 2001; Tuominen-Soini, Salmela-Aro and Niemivirta, 2008). Mastery goal orientation is negative correlated, performance approach and performance avoidance is positive correlated with fear of failure (Bartels and Mugan-Jachson, 2009). The aim of this study is to show that there is a relation between the teacher candidates' BLDEs and their goal orientations.

METHOD
In this study, correlation method which is one of the descriptive research methods is used. Correlation is a statistical method that explain two or more variables covary or not (Cresswell, 2012).
Participants

The study is carried out with 161 teacher candidates who studying in the academic year of 2013-2014 in Bulent Ecevit University Eregli Education Faculty. 31% of the participants are classroom teaching students, 31% are pre-school teaching students, 38% are social studies teaching students.

Instruments

In the study, two data collection tools were used. These are "Achievement Goal Orientation Scale" and "Epistemological Belief Scale".

Achievement Goal Orientation Scale

The scale developed by Midgley and others was adapted into Turkish by Cetin and Akin (2007). The scale consists of three factors in total. The first one is learning orientation factor. This factor consists of 6 items and its reliability is found as 0.77. The second factor is the performance approach factor. This factor also consists of 6 items and its reliability is found as 0.79. The third factor of this scale is performance avoidance factor. This factor consists of 5 items and its reliability is found as 0.78. In this study, coefficient reliability for the scale factors is calculated to the learning orientation 0.82, to performance approach 0.83, to performance avoidance 0.79.

Scale of Belief that Learning Depends on Effort

Scale used in this study was subscale of epistemological belief scale developed by Schommer and adapted to Turkish by Deryakulu and Büyüköztürk (2002). As a result of pilot study, it is understood that the scale have three-factor structure. These factors are "belief that learning depends on effort," "belief that true is one" and "belief that learning depends on ability". In this study, "belief that learning depends on effort" subscale located on the epistemological beliefs scale was used. This factor consists of 18 items and its reliability is found as 0.78. This factor coefficient reliability in the study is calculated as 0.79.

ANALYSIS
In the study, while Pearson-product moment correlation was used to reveal the relationship between the factors, stepwise regression analysis was used in order to reveal the predictive power of independent variables on dependent variables.

FINDINGS
In this study, primarily the relationship between teacher candidate's beliefs that learning depends on effort (BLDE) and achievement goal orientations is examined. The findings are presented in table 1.

Table 1. Results of Correlation Analysis

	Learning	Per.App.	Per.Av.	Effort
Learning	1,00			
Per.Ap.	0,357**	1,00		
Per.Av.	-0,010	0,308**	1,00	
Effort	0,541**	0,341**	-0,003	1,000

** p < 0,01

When Table 1 is examined, it is observed that the strongest correlation occured between the scores of BLDE and the scores of learning orieantation. There is a positive, moderate and significant correlation (r = 0.541; p <0.01) between these two variables. Accordingly, it is observed that when teacher candidates' learning orieantation scores increases, BLDE scores also moderately increase.

It is seen that there is a moderate, positive, and significant correlation (r = 0.341; p <0.01) between teacher candidates' BLDE scores and performance approach orientation scores. Accordingly, it is observed that when teacher candidates' performance approach orientation scores increases, BLDE scores also moderately increase. It is identified only a relationship isn't significant between teacher candidates' BLDE scores and performance avoidance orientation scores (r = -0.003, p> 0.01).

When the relationship between the factors that constitute the achievement of orientation is examined, it is seen that teacher candidates' performance approach orientation. Scores have positive, moderate and significant relationship both with learning orientation scores (r = 0.357; p <0.01) and performance avoidance orientation scores (r=0,308; p<0,01). There is no significant relationship between learning orientation scores and performance avoidance orientation scores (r = -0.010, p> 0.01).

In order to reveal the impact of teacher candidates' goal orientations on BLDE scores, stepwise regression analysis was used. In the analysis, achievement goal orientation variables were identified as a independent variable, BLDE variable was identified as a dependent variable. The findings are presented in table 2.

Table 2. Regression Table

Step	Predictors	R	R^2	R Square Change	F	P
1	Learning	0.541	0.293	0.293	65,532	0,000*
2	Learning, Per.Approach	0.568	0.314	0.021	37,313	0,000*

When Table 2 is examined, it is seen that the most powerful predictor of teacher candidates' BLDE scores is learning orientation. Teacher candidates' learning orientation scores predict 29% of BLDE scores. The other significant predictor of teacher candidates' BLDE scores is performance approach orientation. Teacher candidates' learning orientation scores and performance approach orientation scores together predict 31% of BLDE scores. Accordingly, it can be said that learning orientation and performance approach orientation orientations have a significant effect on teacher candidates' BLDE scores.

CONCLUSION

When the research findings are examined, the highest relation of the teacher candidates' BLDE scores occurs with learning orientation. Similarly, Ames & Archer (1988) and Tuominen-Soini, Salmela-Aro and Niemivirta (2008) have found moderate correlation between effort as a cause of success and mastery goal orientation. In addition, while the moderate, positive and significant relation between teacher candidates' BLDE scores and performance approach orientation is detected, very weak and insignificant relationship is found with performance avoidance orientation. When the results of study's regression analysis are examined, it is obtained that there are two predictors of teacher candidates' BLDE scores. While the most powerful predictor is learning orientation, the other predictive variable is performance approach. It implies, if teacher candidates set learning and performance goals, their BLDE increase and they use active teaching methods when they become teachers.

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