THE EFFECT OF CANDIDATE TEACHERS’ EDUCATIONAL AND EPISTEMOLOGICAL BELIEFS ON PROFESSIONAL ATTITUDES

ÖZGRET MEN ADAYLARININ EĞİTİ ME YÖNELİK İNANÇLARI İLE EPİSTEMOLOJİK İNANÇLARIN MESLEKLERİNE YÖNELİK TUTUMLARINA ETKİSİ

Aysen Seda Önen*

ABSTRACT: While teacher’s cognitive skills are described with epistemological beliefs, the attitudes towards their profession, teaching styles and disciplinary actions are mainly associated with their educational beliefs. This study aiming to determine the effect of relation between candidate teachers’ educational and epistemological beliefs on their attitudes towards teaching profession is a kind of descriptive research in terms of screening model. In this study the relation between biology, physical, chemistry and mathematic candidate teachers’ educational beliefs and epistemological beliefs are examined and the effect of this relation on their attitudes towards teaching profession is analyzed. This research is conducted with 200 candidate teachers studied in Education Faculty of Hacettepe University in 2010-2011 academic years. Educational Belief Scale, “Epistemological Belief Scale” and “Attitude Scale of Teaching Profession” are used in the research. At the end of the analyses, the significant positive relation is determined between the candidate teachers’ professional and epistemological beliefs and attitudes towards their profession. Also, the relation between sub-dimensions of Epistemological Beliefs and Educational Beliefs Scales are analyzed and positive significant relations are determined.

Keywords: Beliefs, the philosophy of education, teaching profession, attitudes.


Anahtar sözcükler: İnançlar, eğitim felsefesi, öğretmenlik mesleği, tutum.

1. INTRODUCTION

The development and improvement of a country closely related with its educational process. Teachers are the main responsible of this educational process. They not only conduct their students academically and professionally, but also help them to assume a worldview and personality. The fact is that apart from target behaviors to be learned, teachers have essential role on students forming attitudes, own way of teaching and perspective. Another role of the teacher is to arrange students’ learning experience by using various teaching techniques and methods and to assess whether terminal behavior is achieved by the student (Kılıç, 2004). Today, teacher should be a good director, observer and a qualified counselor who organize the teaching and learning experiences. In this respect, teaching profession has become a more demanding profession requiring qualification and efficiency (Küçükkyilimaz & Duban, 2006). Teachers’ personal characteristics and beliefs are critically important who have such a kind of influence on students’ personality and perspectives. The reason is that while the efficiency of the teachers is only determined with their education and diploma, required personal

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characteristics, attitudes and beliefs are ignored (Jones, 1993). As a teacher only having good field knowledge is not enough. Teachers should also believe in themselves, should be warm in human relations, can motivate people around him/her, have a potential in giving modern and original perspective to teaching and learning process and also should be innovative individuals.

While teacher’s cognitive abilities are described as his/her epistemological beliefs consist of his/her point of view on education and strategies to reach this view, attitudes towards the profession, teaching methods and disciplinary behaviors and even their potential of developing cognitive abilities have largely related with their beliefs in education that matured in time in their inner mind. In gaining required efficiency of teaching profession, besides receiving a good training, having a strong belief in conduct their task and responsibilities in proper sense is an important factor. Beliefs and attitudes they attained have a guiding role in comprehending their responsibilities as a teacher (Günayar, 2004; Sayın, 2005). Determining teachers’ terms of references to be formed in this regard facilitates their evaluation, management and supervision processes. Beliefs are acknowledgments or conformations of an individual which are attained by relations with others (Trompenaars, 1993). Individuals’ beliefs effect attitudes and make them behave according to these beliefs (Hoy & Miskel, 2001). Beliefs form the cognitive or intellectual sides of attitudes. (Kaşçıbaşı, 2006). Epistemological beliefs are described as “knowing what the knowledge is and the subjective beliefs about how learning occurs (Schommer, 1990, Cheng et.al., 2009). Hasweh (1996), determined that physic, chemistry and biology teachers who have developed epistemological beliefs more efficiently use various and several kinds of teaching strategies during teaching strategies in the classroom. According to Deryakulu and Büyüköztürk (2002) some researchers in the literature assert that epistemological beliefs should only consist of beliefs about knowledge and discussing learning beliefs under the epistemological beliefs is not a right approach. When this matter is discussed for teachers, it’s thought that apart from their epistemological beliefs, educational beliefs are dominant in teaching and learning processes. Therefore, determining the epistemological beliefs and educational beliefs is important and necessary to understand and explain the behaviors of the aforementioned group. As teachers are influential people on modernizing the society and civilization, as a part of this role they need to be properly flexible and have cognitive complexity in order to comprehend different point of views of social, cultural and politic contexts (Brownlee, 2003). All of these advantages make it necessary for teachers to receive a training education having epistemological beliefs that become significant with their beliefs in education and in which they form positive attitudes towards their profession. Therefore, the relation between teachers’ epistemological beliefs and educational beliefs is critically important not only for themselves but also for their influence on students. It can be mentioned that individuals’ educational beliefs’ basic determinant is philosophy of education. Depending on this, educational beliefs need to be determined and restructured based upon the philosophy of education (Yılmaz et.al., 2011). The philosophy of education is depicted as a discipline that concern with the problems peculiar to philosophy about opportunity, nature, aims and methods of educating (Cevizci, 2005). The philosophy of education is a discipline or thinking method that gives perspective to the educators. Moreover, the philosophy of education tries to develop hypothesis that would be used in education, sums up the philosophical and educational approaches about human nature, society and learning and tries to conflate them. Educational beliefs are also vital tools for determining the aims of education. This situation guides educators and education of politicians and also motivates arouse learners with its incentive feature. Besides, educational beliefs have variable functions that can be used in measuring the educational success. Educational activities do not guarantee success in education with all means. Education needs to be successfully planned. One of the criteria of this planning process is a necessity to search particularly the instruments help education and the other factors that can change the fact of education. Revealing the major factor of teachers’ professional beliefs and analyzing them with some variables and also evaluating the success at all points during the teaching process with this aspect has a key role. Educational belief scale is configured on Perennial, Essentialist, Progressionist, Reconstructionist and Existential philosophy of education. What students feel, do and think is extremely important. As it’s mentioned in the literature about this subject, educational beliefs occur based on the philosophy of education (Livingston et. al., 1995; Pajares, 1992; Rideout, 2006; Silvernail, 1992a, 1992b). Many education researchers emphasize that teachers’ educational beliefs shape their choices.
and actions. However, researches on educational beliefs are considerably few (Quinlan, 1997). This view is the same for Turkey. In Turkey some researchers are conducted on determining the philosophy of education of teachers (Çoban, 2007; Doğanay & Sarı, 2003), candidate teachers (Duman, 2008; Duman & Ulubey, 2008; Ekiz, 2005, 2007) and school administrators (Karadağ et. al., 2009). In this study, it’s thought that revealing candidate teachers’ epistemological beliefs and the level of professional beliefs and the relation between them also contribute to determine their attitudes towards the profession. Evaluating these beliefs and attitudes together should be regarded as critical as candidate teachers’ having efficient field and teaching training knowledge. The reason is that during teacher training evaluating the control of success is not enough when these beliefs and attitudes are disregarded.

2. METHOD

2.1. Research Model

This study is a descriptive research in survey model aiming to determine the effect of the relation of candidate teachers’ professional beliefs and epistemological beliefs on their attitudes towards the profession.

2.2. Study Group

This study is conducted with 200 candidate teachers studied in Education Faculty of Hacettepe University in 2010-2011 academic year.

2.3. Assessment Tools

This Professional Belief Scale, “Epistemological Belief Scale” and “Attitude Scale Towards Teaching Profession” are used in this study.

2.3.1. Professional Belief Scale

Professional Belief Scale is developed by Yılmaz, Altınkurt and Çokluk (2011) to determine the educational beliefs of teachers and candidate teachers. Scale consists of 40 items and configured as 5 Point Likert Type. Scale formed by a type of five factorials. It’s seen that reliability coefficients vary between 0.70–0.91 for these sub scales. As Educational Belief Scale consists of independent sub scales, total point cannot be reached. Therefore, Cronbach Alpha coefficient is not calculated for whole scale but for sub scales by the researchers. Calculated inner consistency coefficients show that scale has a high level of reliability.

2.3.2. Epistemological Belief Scale

Epistemological Belief Scale is developed by Schommer (1990) and adapted into Turkish by Deryakulu and Büyüköztürk (2002) and validity and reliability studies are done. This scale is 5 point Likert Type and consists of 35 items. At the end of the study conducted to designate the reliability of Epistemological Belief Scale, Cronbach Alpha reliability coefficient of the whole scale is determined as .80 (Deryakulu & Büyüköztürk, 2005; Vural & Gümleksiz, 2007).

2.3.3. Attitude Scale Towards Teaching Profession

Attitude Scale Towards Teaching Profession developed by Özgür (1994) is used in order to determine the attitude towards teaching profession. The reliability coefficient of the scale is calculated as 0.75. Cronbach Alpha reliability coefficient is calculated as 0.94 at the reliability study of the scale. (Çiğdem, 2010). “Attitude Scale Towards Teaching Profession” is 5 point Likert Type and consists of 33 items.
3. FINDINGS

Within the context of this study, it’s analyzed that whether there is a relation between the average point of candidate teachers’ educational belief with the average points of epistemological beliefs and professional beliefs. When data are being evaluated, descriptive statistical techniques are used and it’s found that the variables of Skewness and Kurtosis values are between (-1;1). In other words, at the end of the statistical analyzes it’s seen that parameters show normal distribution and Pearson correlation test is done to determine the relations between variables. The results are summarized in the following Table 1.

Table 1: The Pearson Coefficient Values of Candidate Teachers’ Educational and Epistemological Beliefs and Attitudes towards Their Profession.

<table>
<thead>
<tr>
<th>Educational Beliefs</th>
<th>Epistemological Beliefs</th>
<th>Attitudes Towards Teaching Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>1</td>
<td>.79</td>
</tr>
<tr>
<td>r</td>
<td></td>
<td>.00*</td>
</tr>
</tbody>
</table>

As it’s seen at Table 1, there is a significant and positive relation between candidate teachers’ educational beliefs with epistemological beliefs and attitudes towards teaching profession (r = .79, r = .80, r = .68; p<.05).

Points taken form sub dimensions of epistemological belief scale and educational belief scale can be used individually. Therefore, it’s thought to be necessary to evaluate whether there is a significant relation between sub dimensions of these two scales.

Table 2: Pearson Correlation Coefficient Values of the Sub-dimensions of Candidate Teachers’ Epistemological Belief Scale and Educational Belief Scale

<table>
<thead>
<tr>
<th>Sub-dimensions of Epistemological Belief Scale</th>
<th>Sub-dimensions of Educational Belief Scale</th>
<th>Progressivism</th>
<th>Existentialist Education</th>
<th>Re-constructionism</th>
<th>Perennialism</th>
<th>Essentialism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief in Learning Depends on Effort</td>
<td>p</td>
<td>.72</td>
<td>.68</td>
<td>.62</td>
<td>.027</td>
<td>.013</td>
</tr>
<tr>
<td></td>
<td>r</td>
<td>.00*</td>
<td>.00*</td>
<td>.00*</td>
<td>.70*</td>
<td>.85*</td>
</tr>
<tr>
<td>Belief in Learning Depends on Capability</td>
<td>p</td>
<td>.09</td>
<td>.072</td>
<td>.81</td>
<td>.54</td>
<td>.024</td>
</tr>
<tr>
<td></td>
<td>r</td>
<td>.18</td>
<td>.31</td>
<td>.00*</td>
<td>.00*</td>
<td>.76</td>
</tr>
<tr>
<td>Belief in Only One Truth is Exist</td>
<td>p</td>
<td>.08</td>
<td>.03</td>
<td>.03</td>
<td>.52</td>
<td>.51</td>
</tr>
<tr>
<td></td>
<td>r</td>
<td>.20</td>
<td>.62</td>
<td>.62</td>
<td>.00*</td>
<td>.00*</td>
</tr>
</tbody>
</table>
Values getting from candidate teachers are calculated by using Pearson Correlation Analyze in order to find out whether there is a significant relation between sub-dimensions of Epistemological Belief and Educational Belief Scale. Findings are summarized at Table 2. According to these evaluations:

- It’s determined that there is a significant relation between **Belief in Learning Depends on Effort** subsection of Epistemological Belief Scale and **Progressivism, Re-constructionist and Existentialist Education** sub-dimensions of Educational Belief Scale ($r = .72$, $r = .62$, $r = .68$; $p < .05$).
- It’s determined that there is a positive significant relation between **Belief in Learning Depends on Capability** subsection of Epistemological Belief Scale and **Re-constructionism and Prennialism** sub-dimensions of Educational Belief Scale ($r = .54$, $r = .81$; $p < .05$).
- It’s determined that there is a significant relation between **Belief in Only One Truth Is Exist** subsection of Epistemological Belief Scale and **Perennialism and Essentialism** sub-dimensions of Educational Belief Scale ($r = .52$, $r = .51$; $p < .05$).

**4. CONCLUSION AND DISCUSSION**

Within it’s found in the study that there is a positive significant relation between candidate teachers’ educational beliefs and epistemological beliefs with their attitudes towards teaching profession. Until now relations are found between epistemological belief and attitudes towards education in the studies conducted in this field and it’s determined that developed epistemological beliefs reveal positive attitudes towards education (Kuzgun, 2004). Based on the fact that epistemological belief scale and educational belief scale have multifunctional structures and extremely high factor load values, finding out whether there is significance between sub-dimensions of these two scales is included to the study. At the end of the researches it’s determined that there is positive relations between “Belief in Learning Depends on Effort” subsection of Epistemological Belief Scale and “Progressivism, Re-constructionism and Existentialist Education” subsection of educational Belief Scale. When evaluated in terms of the philosphy of progressivism, it’s seen that “Belief in Learning Depends on Effort” subsection is first of all depends on what an individual does, his/her own ideas and the capability of solving problems with his/her own hand. In the sense of Progressivism, knowledge is factual and concretness stands in the forefront. Idea and experience work together and there is an effort for learning and conclusions in the end. “Education should be more than book learning” (Özden, 2003; Taşpınar, 2008). Students can progress by using their intelligence and scientific methods to solve the problems they encounter in the learning process. At this point teacher should create a learning environment which meets students’ requirements and they can reach the conclusion by researching rather than displaying basic skills. By this way student and his/her effort and interest in the learning process are focused rather than the subject. Teacher should direct the process as a counselor, physiologist and a guide. This view is also in harmony with the dogma of the philosophy of re-constructionism and existentialism. The philosophy of existentialism sees human as “being in a formation” and argued that an individual should effort for self actualization and conduct his/her own researches and should realize himself/herself, on the other hand re-constructionism argued that what an individual needs to do for learning is also construct his mind and character and support his planned and democratic social actions in the society by improving his sociological nature with his own effort. The common point of these sub-dimensions of two scales is the belief that in order to reach the knowledge candidate teachers should make all learning strategies useful in the learning process by configuring them in mind and they should be also supported to achieve a statue in the society, they should be helped for performing their own learning. Similarly, it’s determined in the study that there is a positive significant relation between the “Learning Depends on Capability” subsection and “Re-constructionism” and “Perennialism” sub-dimensions. Perennialism refers to the most distinguishing feature of the human’s thinking capability (Demirel, 2002). It defends the idea that during the
improving process of this capability, students should learn the basic facts and by this way develop his mind and focus on the intellectual studies. Re-constructionism put mental training, experiences of the mind and disciplines at the focal point of learning. Education should accommodate itself to the universal and constant fact. A teacher embrace re-constructionism shows more innovative way of behaving however perennial ones act more reluctant to the application of new things (Duman & Ulubey, 2008). There is the idea of necessity for Perennialism to protect the past and the sustenance, on the other hand future and restructure of the future for re-constructionism. The essence of these two sub-dimensions of the educational belief scale which seem opposite and “learning depends on capability “subsection of the epistemological belief scale is that as student centered educational processes are not properly established, candidate teachers vacillate between these two opposite poles. Although candidate teachers receive training full of all contemporary approaches, the transition from traditionalism to innovation is not fast enough in special education applications and especially in training courses and in course environment. Although educational institutions try to give effective contemporary training, there are some situations that students’ traditional views about the past education they receive before coming to the university do not adequately change. Candidate teacher knows that he/she should be innovative but cannot abjure the traditional perceptions. The determined relation between “Belief in Only One Truth is Exist” subsection of Epistemological Belief Scale and “Perennial” and “Existentialism” sub-dimensions of the Educational Belief Scale have a basis in that knowledge is universal and unchangeable and knowledge should be protected and transferred and emphasize the teacher centered way of education is supported. The results between this subsection of Epistemological Belief Scale and these sub-dimensions of educational belief scale reflect the perception of traditional education. Consequently, as Turkish Education System has unsettled education programs and do not serve the purpose adequately, whether candidate teachers educate in science or social and human sciences, they cannot balance between traditional approach of teacher centered education and student centered structuralist approach and therefore some problems can be accrued as a result of disagreement between how and what should be done in the learning and teaching processes. One of the effective ways of eliminating these disagreements is to find an opportunity for candidate teachers to be a part of practical studies during the teaching training and by this way integrate their deficiencies more consciously by applying the contemporary approaches they receive during the university years. Undoubtedly, candidate teachers somehow can eliminate these application deficiencies but the more teaching environment is supported with vital environment during the university years, the more easily they can set traditionalism aside by improving their knowledge quickly and permanently. Moreover, present experienced teachers performing their own style can set a good example and find acceptance with their innovative way of teaching.

KAYNAKLAR


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**Genişletilmiş Özet**

Eğitimin sürecindeki en önemli pay öğretmenlere düşmektedir. Öğretmenler, öğrencilerine sadece akademik ve mesleki açıdan yön vermekle kalmaz, aynı zamanda öğrencilerinin kişilik gelişirmelerinde ve bir hayat görüşü edmelerinde de yardımcı olur. Öğrenciler üzerinde bu kadar önemli rolü olan öğretmenlerin, sahip oldukları kişisel özellikleri ve inançları büyük önem taşır. Çünkü öğretmenlerin yeterliliği yalnızca aldıkları eğitim ve diplomalarıyla belirlenirken, sahip olmaları gerekli kişisel özellikleri, tutumları ve inançları göz ardı edilmektedir. İnanc, tutumun bilişel ya da düşünsel yönünü oluşturmaktır. Epistemolojik inançlar bilginin ne olduğunu bilmeye ve öğretmenin nasıl gerçekleştğini ile ilgili bireylerin öznel inançları olarak tanımlanmaktadır.
Sonuç olarak, ister fen alanında ister soysal ve beşeri alanlarda öğrenim gören öğretmen adayları olsun, Türk Eğitim Sisteminizdeki amaç yeteri kadar hizmet etmeyen öğretmen programları nedeniyle, öğretmen merkezli geleneksel yaklaşım ile öğrencî merkezli yapısal yaklaşımlar arasında denge kurulamamakta, öğrencî-öğretim süreçlerinde neyin, ne şekilde yapılmasi ile ilgili çelişkiler yaşanabilmektedir. Bu çelişkilerin ortadan kaldırılmasının en etkili yollarından biri, meslek öğrenimleri boyunca öğretmen adaylarının, daha çok uygulama ortamlarında bulunmaları, kendi geçmîslerindeki eksiklikleri, üniversite döneminde gördükleri çağdaş yaklaşımlarla daha bilinçli bir şekilde entegre ederek uygulama imkanı bulmalarıdır. Şûphesiz öğretmen adayları, mesleğe başladıklarında bu uygulama yetersizliklerini bir şekilde giderebilmektedirler. Ancak üniversite sürecinde, öğretim ortamlarî, ne kadar canlı ortamlarla desteklenirse, öğretmen adaylarının öğretimle ilgili bilgilerini hızlı ve kalıcı bir biçimde geliştirmesi ve gelenekselcilikten kurtulmayı başarabilmeleri o denli kolay olacaktır. Ayrıca, öğretmen adayları halî hazırlıkda görev yapmaka olan tecrübeli öğretmenler için de özgün tarzlarıyla kabul görüp örnek alınacak kişiler olabilecekleridir.