The Effects of the Educational Training Courses on the Doctoral Students’ Conceptions of Effective Teaching

Farklı alanlardaki doktora öğrencilerinin etkili öğretim ilişkini tanımlarına eğitim derslerinin katkısı

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Abstract

The education of the instructors for teaching is carried out through some postgraduate courses or seminars. This study aims to find out the changes in doctoral students’ conception of effective teaching through the two educational courses (Development and Learning, and Instructional Planning and Evaluation) taught in Turkey. Seventy-one doctoral students described a class in which effective teaching is conducted before and after taking these educational courses. The classical content analysis was administered on the data. The doctoral students’ conceptions of the effective teaching were categorized within instructor-centred and learner-centred conceptions. The analysis revealed that the conceptions of the effective teaching of more than a half of the doctoral students were not changed by the training about teaching. What the analysis also revealed, however, was that the changes in their conceptions from instructor-centred category to learner-centred category were higher than those from learner-centred category to instructor-centred category. In conclusion, these courses were not influential sufficiently for the doctoral students in improving learner-centred conceptions of the effective teaching. These conclusions might be attributed to the inconsistency in the national, institutional, and individual objectives. Time dedicated to studying these courses is thought to be short for learning the intensive contents of the courses determined by a central institution. The low attitudes of doctoral students also might have affected their thinking about the conception of the effective teaching. Following the evaluation of the data, some proposals are recommended for doctoral students to conceptualize the effective teaching within the learner-centred way.

Key words: Effective teaching, higher education, instructor, learner-centred approach.

Whether instructors have a specific conception of teaching or not (Murray and Macdonald, 1997) and how they conceptualize teaching (Hativa, Barak and Simhi, 2001; Hu, Scheuch and Gayles, 2009) they are very crucial for educational qualifications. A project of Organization for Economic Co-operation and Development
(OECD) (2009) reviewing the quality of teaching of 29 higher education institutions across 20 OECD and non-OECD countries puts forward that most of these countries aim to improve the quality of their teaching but define and concept “the quality of the teaching” differently from each other. That is why the higher education institutions are suggested to change the conceptions in their instructors (Günel, 2008; Ho, 2000; Kember and Kwan, 2000).

Kember (1997) indicated that the research on the teaching phenomenon of the instructors has appeared in the literature since 1990. Murray and Macdonald (1997) asserted that the studies concerning the instructors’ conceptions of teaching were not much in number compared to the studies concerning the students’ learning conceptions and propagated the studies concerning the instructors’ conceptions of teaching (e.g. Åkerlind, 2003, 2004; Kember and Kwan, 2000; Martin, Prosser, Trigwell, Ramsden and Benjamin, 2000; Postareff et al., 2008; Prosser, Ramsden, Trigwell and Martin, 2003; Samuelowicz and Bain, 2001). The below rationales which set forth the value of the studies concerning the conceptions of the teaching are also valid for this study:

- Concepts, providing the categorization of different behaviours or operations, prevent the explanation of much different behaviour with one concept (Roberts, 2003).
- Conceptions of the teaching affect teaching approaches and accordingly the level of learning. (Kember and Kwan, 2000; Martin et al., 2000; Prosser et al., 2003; Trigwell et al., 1999).
- The accordance of the teacher’s with the student’s conceptions of learning is significant (Lecouteur and Delfabbro, 2001).
- Teaching should be re-conceptualized for different cultures (O’Sullivan, 2004).

Remarkably, most of the studies on instructors’ conceptions of effective teaching were carried out in Australia and UK. This paper presents the doctoral students’ conceptions of the effective teaching in a different context in Turkey. Some studies conducted in Turkey state that the learner-centred approach is not applied sufficiently in the institutions of higher education (e.g., Altparnak and Nabikoğlu, 2004; Ünver, 2010). The instructors’ conceptions of the effective teaching take part only in one study (Akpinar-Wilsing and Paykoç, 2004).

There are some different categorizations for teaching. Fox (1983) named the transfer theory and the shaping theory as simple theories. The transfer theory treats information as an object that can be transmitted from one person to another. The shaping theory describes students’ brains as raw materials that can be shaped. However, he refers the travelling theory and the growing theory as developed theories. The travelling theory treats education as an excursion, subject as interesting places to be explored and the teacher as a guide. The growing theory treats students as a part of the learning process and as people who contribute to the process, the instructions and the aims.

Postareff et al. (2008) used the term learning-focused when the aim of the instructor is to increase learning, and the term content-focused when the aim of the instructor is to transmit the subject matter of the course to the students. Some researchers categorized the teaching into two distinct approaches as information transfer/teacher-focused approach, which focuses on transmission of information and conceptual change/student-focused approach, which focuses on conceptual development and change (Martin et al., 2000; Prosser and Trigwell, 1997; Prosser et al., 2003; Trigwell et al., 1999). Samuelowicz and Bain (2001) categorized instructors’ conceptions as teacher-centred and learning-centred:

- Teaching-centred; imparting information, transmitting structured knowledge, providing and facilitating understanding.
- Learning-centred; helping to develop expertise, preventing misunderstandings, negotiating understanding, encouraging knowledge creation.

Alternatively, some researchers categorize the teaching developmentally or hierarchically. For instance, Sherman et al. (1987) described teaching in four stages: (1) Teaching is telling, (2) Teaching is hoping students will learn, (3) Teaching is transmitting knowledge, and (4) Teaching is a complex interaction, which is unique and dynamic. Each of these stages includes three elements as the theories of teaching, thinking and learning of the students, and the relation between teaching and teaching activities. Åkerlind (2003, 2004) sorted four titles for the instructors’ concepts concerning the improvement of their teaching: (1) Teacher transmission focused experience, (2) Teacher-student relations focused experience, (3) Student engagement focused experience, and (4) Student learning focused experience. Kember (1997) examined 13 studies and summarized the categories of conceptions of teaching comparatively; and he categorized teaching into two general concepts as teacher-centred/content-oriented and learner-centred/learning-oriented and he also specified two sub-concepts as imparting information and transmitting structured knowledge, and facilitating understanding and conceptual change/intellectual development. Additionally, he described the learner-teacher interaction as an intermediate conception. Similarly, Murray and Macdonald (1997), and Samuelowicz and Bain (1992) arranged descriptively the instructors’ explanations concerning the concept of
teaching from ‘imparting knowledge’ to ‘supporting student learning’.

There are direct contrary aspects on the categorization of the teaching. For instance, the students indicated that student-centred and teacher-centred were not independent from each other and that they were closely related with each other in terms of being two dimensions of the learning environment (Elen et al., 2007). Ormond and Stiles (2002) explained that the naming of teaching activity as teacher-centred/traditional or student-centred/innovative is meaningless. According to them, a lecture is tutor-centred physically, but may be student/learner-centred in terms of learning process. Additionally, Fox (1983) asserted that developed teaching theories might not always be more effective than the simple theories and that there might also be some learning objectives in which simple theories might be more appropriate. Kember (1997) indicated that a hierarchical categorization would be more functional and comprehensible rather than a general categorization as learner-centred and instructor-centred. Actually, this way can prevent discussions concerning ‘traditional teaching’ or ‘innovative teaching’ to a great extent.

Nevertheless, the student-centred/learning-centred approach is generally opted more compared to the teacher-centred/subject-centred approach (Bosch et al., 2008; Carnell, 2007; Dall’ Alba, 2005; MacLellan and Soden, 2004; Postareff et al., 2008; Prosser et al., 2003; Young and Shaw, 1999). The student-centred/learning-centred approach is aimed to be used in short-term and long-term education planning (European University Association, EUA, 2007; Yükseköğretim Kurulu / Higher Education Council, 2007). One of the accreditation requirements of The Institute for Learning and Teaching in Higher Education is learner-centred approach (Fanghanel, 2004). The students’ opinions concerning the student-centred approach are also positive (Girgin and Stevens, 2005; Lea et al., 2003).

Although instructors are expected to be good teachers, it is still criticized that they have insufficient education concerning teaching (Roche and Marsh, 2000). Furthermore, the instructors give particular importance to being educated for improving their educational knowledge and skills (Hodkinson and Taylor, 2002) and therefore apply different professional development models (Pill, 2005) and participate in educational programs (Dall’ Alba, 2005; Hodkinson and Taylor, 2002). It is also emphasized in the Lisbon Declaration of EUA (2007) that the instructors should be given education and be encouraged to work with a learner-centred approach.

The education of the instructors for teaching are carried out through postgraduate courses or seminars (e.g., Åkerlind, 2008; Dall’ Alba, 2005; Donnelly, 2008; Küürüm, 2007). For example, after the instructors completed the professional development program, then the main objective of this is to make the participants reflect their performance concerning learning, teaching and evaluation in all aspects stating that they improved mainly about using learner-centred approach (Donnelly, 2008). In an educational course, Dall’ Alba (2005) provided the participants with a broader perspective besides the teaching methods.

One of the limited researches relating to the effectiveness of the conceptual change in staff development program revealed that the instructors whose conceptions of teaching improved their practice and affected their students’ academic success and attitudes towards the courses (Donnelly, 2008). The results of the research supported the following three important hypotheses concerning the conceptual change in instructor development (Ho et al., 2001, p. 163-164):

- It is feasible to bring about conceptual change by means of a staff development short-course with appropriate programme design,
- A change in conceptions of teaching is likely to lead to improvement in teaching practice promptly and in student learning eventually,
- Advancement in conceptions of teaching is a basis for improvement in teaching practices.

In Turkey, instructor training programs (both the courses and the seminars) are focused on the teaching practices instead of the conceptual changes in of teaching. Instructors, especially the ones who do not work in faculties of education, have been trained formally about teaching for the last 13 years in Turkey. These trainings started in accordance with the administrative decision which suggests that the research assistants who carry out their graduate studies should take two educational courses (Development and Learning, DL, and Instructional Planning and Evaluation, IPE) in 2000. Both subjects are taught for one semester during 14 weeks: DL is the theoretical course, which lasts three hours per week; IPE consists of three theoretical and two practical hours per week. Since the institutions of higher education decide whether the Ph.D. students can take these courses or not, the courses are carried out in different institutions of higher education in each semester. For instance, in fall semester of the academic year 2005-2006, these courses were taught in 38 universities out of the 53 universities (Küürüm, 2007). The students’ grade point averages in doctoral certificate do not include the points of DL and IPE. However, they need to succeed in these courses to graduate from their own doctoral programs.

Instructors of the DL and IPE courses determine the objectives of the courses based on the content emitted by
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Higher Education Council. This establishment plans the courses in content-focused approach. Most cognitive objectives of the DL and IPE are in knowledge or comprehension category (Bloom et al., 1956; Krathwohl, 2002) and affective objectives are in responding category (Bloom et al., 1964) of the taxonomy of educational objectives. While the doctoral students do presentation about a subject in the content in DL, they prepare a syllabus, write examination questions in different styles and do microteaching for their own field, and the instructors of the IPE courses generally use explanatory teaching strategy.

The instructors from the departments of educational sciences teach the DL and IPE courses in the faculties of education. Kürüm (2007) revealed that these courses are carried out each week face to face with attendance requirement (96%) and face to face without attendance requirement (4%). In the three institutions of higher education where this study was carried out, the DL and the IPE are taught face to face each week in groups of 10-25 learners. The learners from different fields such as agriculture, civil or computer engineering or communication may come up in the same group.

Purpose of the Study

Some educators consider that teacher conceptions of teaching can be an obstacle for implementing learner-centred approach (Yilmaz, 2009). Similarly, this study came up with the hypothesis that the reason for the insufficiency about the learner-centred approach observed in the institutions of higher education might be that the instructors do not base their conceptions of the effective teaching on learner-centred approach. This study puts forward how the doctoral students’ conceptions of the effective teaching are and how the teaching training given through the DL and the IPE to the doctoral students affects their conceptions. Research questions are addressed as follows:

- How do the doctoral students define effective teaching before (before training-BT) and after (after training-AT) they take DL and IPE courses?
- Do the conceptions of the effective teaching of the doctoral students stated after training show any changes compared to their conceptions stated before training? If yes, in what direction?

Method

The data of this study were collected through open-ended questions on a questionnaire and maximal variation sampling method was administered (Creswell, 2008). Seventy-one doctoral students from three institutions of higher education—two in different big cities and one in little town in Turkey—provided the data. Among them 38 of the doctoral students attended the DL and 33 attended the IPE. Furthermore, 28 of them were at the Graduate School of Educational Sciences, 26 were at the Graduate School of Applied Sciences, 9 were at the Graduate School of Social Sciences and 8 were at the Graduate School of Health Sciences. Also, they studied in several fields such as Statistics, Horticulture, Child Development and Education, and Dental Diseases and Treatment.

The data of the study were collected by two instructors of the DL and three instructors of the IPE at the fall semester of the 2006-2007 academic years. They were provided with written and oral explanations concerning the objective and the scope of the study and how to apply the instrument. The instrument was handed out as a worksheet on which there was an instruction as “Please write down what you see when you imagine a class in which the teaching is effective and the level of learning is high” and the doctoral students were asked to work on this material both at the beginning and the end of the training. They filled out this worksheet individually within 25 minutes, and wrote their names on the sheets. The data collected was thought to have responded to the first question: How do the doctoral students define effective teaching?

The classical content analysis (Ryan and Bernard, 2000) was applied to analyse the data. At first, all the data was read. During the second reading the data were coded and indexed. An expert instructor confirmed the appropriateness of the codes. Then, conceptions of the effective teaching in the descriptions on each worksheet were categorized as instructor-centred and learner-centred based on the structure of the data. Categorization process concerning 142 descriptions was made by the author and another researcher independently from each other. The first categories of them were the same in 112 descriptions. Next, they re-categorized the 30 descriptions for which they had offered different categories beforehand in consultation with each other. Some descriptions were not in either category (9.9% BT and 14.1% AT) because they were general, non-detailed, and unclear. The phrase information transfer (Åkerlind, 2003; Martin et al., 2000; Prosser and Trigwell, 1997; Prosser et al., 2003; Trigwell et al., 1999) was the most significant determinant in the instructor-centred category, whereas the phrases active participation of the student, individual differences, problem solving and research (McCombs and Whisler, 1997) were significant determinants for the category to be learner-centred (Table 1). Concerning the second question of the study, to determine the state and direction of the change between the doctoral students’ conceptions of the effective teaching stated before and after the training, percentages of the doctoral students who had different conceptions of the teaching before and after the training were computed.
Results and Discussion

Table 2 presents the percentages of the doctoral students’ conceptions of the effective teaching in BT and AT. Unexpectedly, the percentage of the ‘learner-centred’ category decreased, the percentage of the ‘instructor-centred’ category increased from BT to AT. Yet, these differences are too low.

The conceptions of the effective teaching of more than a half of the doctoral students (56.3%) were not changed by the courses they had attended. The change was mostly from learner-centred category to the indefinite one (41.9%) adversely the change from indefinite to learner-centred category (6.4%). However, the change from instructor-centred category to learner-centred category (35.5%) was higher than the change from learner-centred category to instructor-centred category (12.8%) (Fig. 1).

These contradictory and confusing results can be explained with seven aspects. First, as explained above, the objectives of the DL and the IPE in the context of this study are, in summary, ‘the doctoral students should learn basic knowledge about learning, teaching and assessment and they transfer the knowledge to teaching in their own field’ and the courses are effective on developing the teaching skills of the doctoral students (Bümen, 2006; Kürüm, 2007). The current aim of the Higher Education Council ‘Instructors should be able to make deliberative choices at least among the developed models’ is also practical and requires no conceptual change. However, the three institutions of higher education involved in this study are the members of European University Association, which aims to establish learner-centred learning beyond 2010 (EUA, 2007). Yet, as Dall’Alba (2005) stated, the success criteria for these courses should be able to make the doctoral students apprehend the significance of being an instructor in higher education and what they can do while teaching. Åkerlind (2008) also indicated that in many courses and developmental programs concerning instructors, it is aimed to improve their understanding of teaching and learning. Hereby, the administrative aims on instructor training are not consistent with the objectives of the instructors, who teach the DL and the IPE. In other words, administrative aims are the ‘showcase aims’ but the objectives of the courses are related to real educational settings. Indeed, if the instructors adopt the administrative aims, they would plan and apply the courses consistent with the aims (Chisholm and Leyendecker, 2008).

Second, the contents of the DL and the IPE are not convenient in changing the doctoral students’ conceptions of the effective teaching in learner-centred direction. In Bümen’s (2006) study, an instructor who taught IPE stated that ‘she could not apply methods and techniques related to learner-centred approach although she had intended to do so, since the course content was intensive for the allocated time’. Kürüm’s (2007) study proves the intensity of the courses and the administrative aims on instructor training.

- **Table 1.** The categorization of the conceptions of the effective teaching.

<table>
<thead>
<tr>
<th>Effective teaching category</th>
<th>Characteristics of the descriptions</th>
<th>Key codes of the category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor-centred</td>
<td>Most of or all of the descriptions are related to instructor-centred approach, focused on instructor and teaching</td>
<td>Information transfer, determining the objectives (by the instructor), proper learning activities and materials, information transfer, subject mastery, well class-management</td>
</tr>
<tr>
<td>Learner-centred</td>
<td>Most of or all of the descriptions are related to learner-centred approach, focused on learner and learning</td>
<td>Active learning, multi-sampling, interesting learning materials, problem solving, questioning, learner-centred, student diversity</td>
</tr>
</tbody>
</table>

- **Table 2.** Categories of the effective teaching before and after training (%).

<table>
<thead>
<tr>
<th>Effective teaching category</th>
<th>Before training</th>
<th>After training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor-centred</td>
<td>47.1</td>
<td>50.7</td>
</tr>
<tr>
<td>Learner-centred</td>
<td>52.9</td>
<td>49.3</td>
</tr>
</tbody>
</table>

- **Fig. 1.** The changing directions of the doctoral students’ conceptions of the effective teaching.
sity of the content of IPE course, which is considered as a problem in the countrywide. Since the contents of the courses are determined by a central institution (Higher Education Council), the courses become a ‘toolkit’ as in Dall’ Alba’s (2005) metaphor. This way is consistent with the aim of Higher Education Council ‘to improve the teaching skills of the instructors’, though absolutely not consistent with the aim of European University Association ‘to establish learner-centred learning’.

Third, the length of time of the DL and IPE (one semester for each one) is indeed too short for conceptualization of the effective teaching. Conceptualization of the effective teaching and training about this requires more time and patience (Bigge and Shermis, 2004). So, doctoral students need to comprehend, analyse and synthesize the sub-concepts of the effective teaching for conceptualization by reading a lot about teaching, using the concept in describing the teaching for different context, practicing alternative teaching methods for their students and reflecting on their teaching. In other words, conceptualization of the effective teaching would keep going on during their entire professional life.

Fourth, attitudes of the doctoral students towards the DL and IPE can be effective on the conceptualization of the effective teaching. In fact, the doctoral students’ attitudes towards the courses in the beginning are mostly negative (Bümen, 2006; Akpınar-Wilsing and Paykoç, 2004). Instructors of these courses have basically endeavored to improve the attitudes of the doctoral students and so the teaching skills of them. The instructors of these courses teach diverse doctoral students, who are educated in different fields (e.g., astronomy, economics, nursing, anthropology) in each semester. Sometimes, even for attracting their interests in the basic learning activities can be effortful for them. Therefore, conceptualization is more arduous goal for them. On the other hand, Bümen (2006) found that these courses improved the doctoral students’ attitudes significantly through one semester. Assuredly, in the recent years, they have had more positive attitude towards these courses when compared with those exhibited at the first years of being disposed with these courses. Nevertheless this is an insufficient time period to change the doctoral students’ attitudes toward these courses.

Fifth, doing research is more crucial than teaching for the doctoral students (Wachtel, 1998). In Turkey instructors seem to prefer to spare their time and energy for making publications instead of reconsidering and improving their way of teaching (Ünver, 2012). One of the instructors involved in Carnell’s (2007) study indicated that she considers the reconsideration of ways of teaching for improvement as waste of time since making publications is more prestigious than teaching. Also, according to Lea et al. (2003), many UK academicians are more likely to allocate the resources concerning learner-centred approach to research as they labour under the pressure to publish or perish. Certainly establishing the balance between the research and the teaching is not easy for most of the instructors.

Sixth, conceptions of the effective teaching of the instructors, who teach the courses and their teaching strategies can affect the doctoral students’ conceptions of the effective teaching (Bümen, 2006; Dall’ Alba, 2005; Kürüm, 2007). Conceptualization is a largely cognitive process that requires abstraction, generalization (Bloom et al., 1964), making contrast, separation and fusion on conceptions and applications of teaching and learning (Åkerlind, 2008). In the context of this study the learner-centred approach is considered as a basis for educational decisions, programs, researches and publications. Three of the instructors who teach the IPE have several studies on the learner-centred approach (e.g. preparing doctoral dissertations, writing books). Nevertheless, the results of the study about changing the doctoral students’ conceptions of the effective teaching depicted that the instructors were in theoretical and practical contradiction (Murray and Macdonald, 1997). They likely adopted but did not conceptualize the teaching in the learner-centred direction. Besides, as Chisholm and Leyendecker (2008) indicate, even if the innovations are adopted, the applications may not be sufficient.

Seventh point is that since the conceptual change is the replacement of one system of beliefs or concepts with another (Åkerlind, 2008), it is an educational reform. In Turkey, there is the limited number of the activities and researches, and therefore, the change from instructor-centred to learner-centred requires a wider perspective and it is really a reform. Furthermore, in many countries, instructors resist against changes and new ideas (Aypay and Kalayc›, 2008; Chisholm and Leyendecker, 2008; Dall’ Alba, 2005; Grossman et al., 2007) and prefer reform activities to be applied with a gradually increasing approach (Aypay and Kalayc›, 2008) rather than an obligatory approach. The doctoral students at some universities in Turkey require succeeding in the DL and the IPE courses. This way causes some reactions to these courses and the instructors (Bümen, 2006). However, there are some researches revealing that the doctoral students consider these courses necessary and beneficial for their instructional activities (Bümen, 2006; Kürüm, 2007).

**Conclusions and Recommendations**

This study stated that the prospective instructors who were trained by the DL and the IPE described the effective teaching in learner-centred and instructor-centred very closely. The change on their conceptions from instructor-centred category to learner-centred category was higher than the change from learner-centred category to instructor-centred category. In
Therefore, there are some recommendations below:

- The effective training programs should be developed. For example, Ho’s (2000) conceptual change program design based on the hypothesis that the instructors’ conceptions of teaching can be changed through teaching applications, in which she combines four theories of change (transition between theories-of-action, theory of conceptual change, requisites for change, and social change of force fields) can be utilized.

- The objectives of the program should be consistent with the administrative aims and both the aims and the objectives should be determined factually, sincerely, and realistically.

- The content of the program should be constituted in line with the needs of doctoral students. The instructors should also be trained by the long-term training programs rather than the short-time activities such as seminars (Soran et al., 2006). Besides informing the instructors about career development models (Pill, 2005), doctoral students’ being open to be informed about teaching in the training (Dall’Alba, 2005) can be an important starting point for a conceptual change.

- Teaching activities in the DL should provide the doctoral students with full comprehension about the theory. Additively, the doctoral students would need to be more active in the IPE; for example they would prepare or examine a syllabus in their fields; they would do micro-teachings with real students in their fields and they prepare and apply an exam in their fields.

- Doctoral students should be informed about the utilities of the DL and IPE by their institutions and advisors. Besides, the more practical training and connections between the doctoral students’ own fields and the theories of learning and teaching would be very fruitful for improving their attitudes towards these courses and conceptualization of effective teaching.

- Instructor training should be realized with a certain program, a registration system that is open for faculty members in every level and is based on volunteering. They should be provided with observing good teaching activities in their own fields and practicing the teaching methods with the university students. Some educational videos, microteachings and writing assignments for reflection may be beneficial for their conceptualization process of the effective teaching.

- The instructors of the DL and IPE should practice learner-centred principles so as to be a good model for doctoral students. Foremost, academicians (as rectors, deans) who are responsible for such programs are expected to be more ready and initiative than usual.

The results of this study represent the hints to be serviceable self-evaluation and external evaluation activities in the Institutional Evaluation Program (IEP) of EUA (2007) as well as in the context of this study. Thus, the instructors can practice and conceptualize teaching in learner-centred approach. However, the conceptualization of effective teaching and the training of the instructors about teaching still need more search in different contexts.

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**References**


