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Department Of Computer And Instructional Technology Teacher Education Opinions Of Candidate Teachers On Education Models

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ABSTRACT

The aim of this study is to reveal education models imagined by candidate teachers from Computer and Instructional Technology Teacher Education (BÖTE) department regarding preparation of course, responsibility of teacher and student during phases of learning/instructing and assessment processes as well as possible methods and techniques that can be used in those phases. In the study, a qualitative approach is employed in order for the research to feature a flexible, holistic and inductive analysis and for an in-depth examination and depiction of sample. Working group of the study consists of 30 candidate teachers who received education at Siirt University Education Faculty Computer and Instructional Technology Teacher Education during 2015-2016 education term. The sample is chosen through criterion sampling which is one of the purposeful samplings. In the study, a questionnaire form is used as a data collection tool which consists of open-ended questions to ask opinions about teacher's responsibility during course preparation phase, learning/instructing phase and assessment phase, student responsibility and methods and techniques that can be used during those phases. A descriptive content analysis technique, which is a qualitative analysis technique, is used during analysis of data. After the conclusion of the study findings are put in order as course preparation, learning-instructing practices and assessment phases and in each phase, opinions are presented regarding teacher responsibility, student responsibility and methods and techniques that can be used during those phases.

Key words: Education, education model, candidate teacher

INTRODUCTION

Students are located at the center of modern education understanding. Education is focused on the livings of students. This student-focused approach views him or her as a whole consisting of emotion, thought and values an aims at development with all these aspects.(Özabacı and Acat, 2005) Despite this, one of the factors that impact student performance is teachers. Teachers are one of the main elements of education. According to Kavcar (1987), success in education depends on teachers who can operate and implement the system in the first place. No education model can offer service above the qualifications of its personnel. Therefore, he stated that a school can be no better than the teachers within itself. According to Can (2004), an effective teacher is an employee in education sector who does have responsibilities towards his or her students and care about emotions and needs of students. Üstündağ et. al. (2008), on the other hand, argued that class environment should be designed to increase quality of learning and instruction in accordance with necessities of present time. When it is considered that teachers have a duty and responsibility for preparing students for life, making them aware of their duties and responsibilities towards self and society, bringing up querier, investigative and self-confident individuals, it is important to pre-determine which education models they imagine Aydın, Şahin and Topal (2008) argue that new responsibilities are given to teacher, who are defined as behavior changing engineer, at present. Tatar et. al. (2012) argued that the beliefs of teachers regarding learning-instructing process should be examined closely since they give shape to the education. In their study, Thomas, Pederson and Finson (2001), on the other hand, mentioned that there is a relationship between candidate teachers' beliefs towards education and cognitive models that reflect their behavior. Senemoğlu (2012) said that human beings perceive cases, facts and entities after interaction with the environment and structure them in their minds and then transform the knowledge they structured in their minds into behavior. Therefore after graduation, candidate teachers too begins

their career with the education models they constructed in their minds and learning experiences they gained throughout their training process for instruction. Hence, this situation is influential in student's performance, classroom management and method they will use and technical decisions they will make in education environment. For this reason, it is important to reveal what kind of education models are contemplated by candidate teachers for predicting what kind of education they will offer in future.

The goal of this study, is to reveal education models contemplated by Computer and Instructional Technology Teacher Education (BÖTE) department candidate teachers regarding preparation of course, responsibility of teacher and student during phases of learning/instructing and assessment process as well as possible methods and techniques that can be used in those phases.

METHOD

Pattern Of Study

In the study, a qualitative research method is employed in order for the research to feature a flexible, holistic and for an in-depth examination and depiction of sample. Qualitative research method is defined as a study method in which qualitative data collection techniques such as observation, interview and documents are used and in which a qualitative process is followed in order to put forth cases in a realistic and holistic way in their natural surroundings (Yıldırım and Şimşek, 2008). Qualitative research method adopts an interpretative approach when it comes to research problem by looking from a holistic view to all disciplines. The facts and cases, on which research is made, are dealt in their own context and are interpreted in terms of the meanings attributed to them by people.

Working Group

Working group of the study consists of 30 candidate teachers who received education at Siirt University Education Faculty Computer and Instructional Technology Teacher Education during 2015-2016 education term. The working group is chosen through criterion sampling which is one of the purposeful samplings. Criterion sampling features individuals, cases, object or situation that have certain qualities of observation units. In this case, units (objects, cases etc.) that meet criteria are taken into the sampling. (Büyüköztürk et. al., 2008) In this study, criterion is set as possession of basic knowledge about and being a student in Computer and Instructional Technology Teacher Education, fulfillment of Special Education Methods I and II courses and participation in the study as a volunteer.

Data Collection Tool and Analysis

In the data collection phase of the study, a semi-structured questionnaire form is used as a data collection tool which consists of open-ended questions to ask opinions on teacher's responsibility during course preparation phase, learning/instructing phase and assessment phase, student responsibility and methods and techniques that can be used during those phases. Before the preparation of the survey form, relevant studies were looked up in the literature (Ayvaci et. al., 2014; Sünbül, 1999; Yeşil, 2014). Thereafter, under the light of collected data, the survey form was given final shape in accordance with opinions and recommendations of two academics who are expert in their respective fields. Candidate teachers were given information regarding the content and goal of the study during the application process of the study and were requested to fill up forms in 30 minutes. The forms filled up by teachers are the main data sources of the study. A descriptive analysis technique, which is a qualitative analysis technique, is used during analysis of data.

During the analysis and interpretation of data through a descriptive analysis, the steps pursued are as follows: forming a framework for descriptive analysis, identification of findings and interpretation of findings. Since a qualitative research method is employed in the study, differently from quantitative method, aspects such as persuasiveness, transmissibility, consistency and confirmation were assessed. Increase of persuasiveness (internal validity) and transmissibility (external validity) is ensured through use of expert views and detailed depiction of research process with purposeful sampling respectively, during the development of data collection tool. In addition, every answers given to each question were compared among themselves and codification was independently made by two individuals. Thereby it was aimed at increasing consistency (internal reliability). Besides, all data derived from candidate teachers are kept in a codified form.

FINDINGS

In this section, the opinions of candidate BÖTE teachers regarding preparation of lesson, learning/instructing and assessment phases, responsibility of teacher and education methods they have in their minds regarding the methods and techniques that can be used during these phases. Opinions of candidate teachers on preparation phase are given on Table-1.

Table-1 Opinions of candidate teachers on preparation phase

		N	%
Teacher responsibility	Should be ready lesson by preparing a good lesson plan	16	26,7
	Should check degree of student preparedness	9	15,0
	Should keep order in class	8	13,3
	Should arouse interest of students when commencing lesson	7	11,7
	Should prepare lesson material	6	10,0
	Should give information about lesson to students at the beginning	5	8,3
	Should ask questions to student	5	8,3
	Should make a physical preparation in class environment	4	6,7
	Total	75	100
Student responsibility	Should make preparation before class	21	30,4
	Should prepare tools and equipment about lesson	12	17,4
	Waits for teacher in a silence	10	14,5
	Listens to teacher	7	10,1
	Should have made homework	6	8,7
	Should show interest towards lesson	5	7,2
	Should arrive class in time	5	7,2
	Should ask questions if a subject is not understood	2	2,9
	Should make research about the subject	1	1,4
	Total	69	100
Method and techniques	Question answer	11	19,0
	Lecture	10	17,2
	Brainstorm	9	15,5
	Have it done by pointing out	8	13,8
	Fishbone	6	10,3
	Lecture with slide show	3	5,2
	Drama	3	5,2
	Should make experiment	3	5,2
	Cognitive map	2	3,4
	Discussion	1	1,7
	Sample case	1	1,7
	Debate	1	1,7
	Total	58	100

As seen from the Table-1, when looked into the opinions of candidate teachers about teacher responsibilities during preparation phase %26,7 said “*Should be ready lesson by preparing a good lesson plan*”, %15 said “*Should check degree of student preparedness*” and %13,3 said “*Should keep order in class*”. In this phase, when looked into the opinions on student responsibilities, %30 said “*Should make preparation before class*”, %17,4 said “*Should prepare tools and equipment about lesson*”, %14,5 said “*Waits for teacher in a silence*” and %10,1 said “*Listens to teacher*”. When looked into the opinions of candidate teachers regarding methods and techniques that can be used in this phase, %19 said “*question answer*”, %17,2 “*lecture*” and %15,5 said “*brainstorming*”. Opinions of candidate teachers about learning/instructing phase are given on Table-2.

Table-2 Opinions of candidate teachers about learning/instructing phase

		N	%
Teacher responsibility	Active participation of students in lesson should be ensured	9	11,8
	Materials that would enrich lecture should be used	8	10,5
	Examples should be given about subjects	8	10,5
	Questions of students should be answered	7	9,2
	Students should be given opportunity to voice their opinions about subjects	7	9,2
	A suitable technique, which is related to lecture subject, should be used	6	7,9
	Should forward questions	5	6,6
	Exercises should be made	5	6,6
	Should make eye contact	3	3,9
	Should motivate class	3	3,9
	Should use class board	3	3,9
	Should use time efficiently	3	3,9
	Should make revisions	2	2,6
	Should use means for consolidation	2	2,6
	Should lecture fluently	2	2,6
	Should establish contact with student	1	1,3
	Should warn students who create disturbances in classroom	1	1,3
	Total	76	100
Student responsibility	Should listen to teacher	23	31,1
	Should ask questions to teacher and give answers to questions	16	21,6
	Should actively participate in class	12	16,2
	Should take notes	10	13,5
	Should do practices during lesson	6	8,1
	Should openly voice his or her opinions or beliefs	5	6,8
	Should give example about lesson	2	2,7
	Total	74	100
Applied method and technique	Plain lecture	14	13,3
	Question answer	13	12,4
	Brainstorming	12	11,4
	Show then get it done	9	8,6
	Six thinking hats technique	7	6,7
	Empirical observation	7	6,7
	Presentation technique	6	5,7
	Fishbone	6	5,7
	Drama	5	4,8
	Discovery	5	4,8
	Sample case	4	3,8
	Discussion	4	3,8
	Concept map	2	1,9
	Cooperative learning	2	1,9
	Showing video	2	1,9
	Debate	2	1,9
	Panel	1	1,0
	Station	1	1,0
	Micro education	1	1,0
	Problem based education	1	1,0
	Project-based learning	1	1,0
	Total	105	100

As seen from Table-2, when candidate teachers' opinions on teacher responsibility is examined, %11,8 said "active participation of students in lesson should be ensured", %10,5 said "materials that would enrich lecture should be used", %10,5 said "examples should be given about subjects, %9,2 said "questions of students should be answered, %9,2 said "students should be given opportunity to voice their opinions about subjects." When looked at candidate teachers' opinion on student responsibilities, %31,1 said "should listen to teacher", %21,6 said "should ask questions to teacher and give answers to questions", %16,2 said "should actively participate in class, %13,5 said "should take notes." With regard to methods and techniques that can be used during learning/instructing phase, %13,3 of candidate teachers preferred "Plain lecture", %12,4 preferred "question answer", %11,4 preferred "brainstorming" and %8,6 preferred "show then get it done." Opinions of candidate teachers on possible methods and techniques that can be used during assessment phase is given on Table-3.

Table-3. Opinions of candidate teachers on assessment phase

		N	%
Teacher Responsibilities	Should make assessment and evaluation	10	19,6
	Should ensure student fulfill goals	10	19,6
	Should make revisions	9	17,6
	Should ask questions	9	17,6
	Should establish criterion	4	7,8
	Should prepare question	3	5,9
	Should perform measurement that is appropriate for class level	3	5,9
	Should assign homework	2	3,9
	Should encourage thinking	1	2,0
	Total	51	100
Student Responsibilities	Should answer questions	8	29,6
	Should ask questions about the topics not well understood	6	22,2
	Should have knowledge about his or her learning performance	4	14,8
	Should make self assessment	3	11,1
	Should make revisions	2	7,4
	Should not cheat	2	7,4
	Should write summary	1	3,7
	Should do homework	1	3,7
	Total	27	100
Applied Method and Technique	Oral examination	19	40,4
	Multiple-choice tests	9	19,1
	Open-ended interpretive questions	3	6,4
	Concepts web	3	6,4
	Exercise questions	3	6,4
	Brainstorm	3	6,4
	Concept map	2	4,3
	Gap-filling	2	4,3
	Cognitive map	2	4,3
	Correct wrong	1	2,1
	Total	47	100

When looked into the Table-3 for the opinions of candidates teachers about responsibilities of teachers, %19,6 said "should make assessment and evaluation", %19,6 said "should make assessment and evaluation, %17,6 said "should make revisions and %17,6 said "should ask questions". About students responsibilities during assessment phase, %29,6 of the candidate teachers said "should answer questions", %22,2 said "should ask questions about the topics not well understood, %14,8 said "should have knowledge about his or her learning performance" and %11,1 said "should make self assessment". When looked into the preferences of candidate

teachers regarding methods and techniques that can be used during assessment phase the figures are as follows: Oral examination (%40,4), multiple-choice tests (%19,1) and open-ended interpretive questions (%6,4)

DISCUSSION CONCLUSION AND RECOMMENDATIONS

In this section, a conclusion on education models imagined by candidate teachers regarding preparation of course, responsibility of teacher and student during phases of learning/instructing and possible methods and techniques that can be used in those phases is presented below.

In the study, with regard to course preparation phase candidate teachers said teachers should “be ready for lesson by preparing a good lesson plan, check degree of student preparedness, keep order in class and arouse interest of student for lesson.” Accordingly, it can be said that candidate teachers favor a constructivist approach during course preparation phase. Constructivist approach designated teacher responsibilities as encouraging active participation of students in lesson, forge a link between prior and new knowledge and encourage asking of questions (Orhan and Bozkurt, 2005) Besides, main role of teacher is considered as preparation of an environment which would help students to reach information and make sense of it (Akpınar and Ergin, 2005). Furthermore, it is stated that good preparation of education process by teachers has an important role in inclusion of students the process and their success. On the other hand it is highlighted that physical and psychological preparedness of students should be taken into account (Çelik, Şanal and Yeni, 2005). Therefore, it is noteworthy that candidate teachers are aware of the fact that teachers has responsibilities of a good lesson preparation and necessity of controlling how much students are prepared for lesson. In a similar study conducted by Ayvacı et. al. (2014), graduate students stated that teachers have responsibilities of organizing education environment, drawing student attention and motivating students during course preparation phase. Er and Aral (2008) argued that teachers should interrogate how students make sense of concepts as well as organize extraordinary, student focused and interesting activities before lesson. Şişman (2007) states that unless teachers do not fulfill their responsibilities towards students, they should not expect they to fulfill their responsibilities. In this study, with regard to students responsibilities during lesson preparation phase, candidate teachers said that student should make preparation before class, prepare tools and equipment about lesson”, wait for teacher in a silence and listen to teacher. In addition, in this phase, they stated that methods and techniques question answer, plain lecture and brainstorming can be used. In the constructive approach, teachers are tasked with making planning of authentic learning tasks and education counseling for helping for thinking. (Koç, 2006)

In the study, when opinions of candidate teachers from BÖTE department regarding student responsibilities during learning/instructing phase, they said students should listen to teacher”, ask questions, give answers to questions and actively participate in class. With regard to teacher responsibilities they said teachers should use materials that would enrich lecture, give examples about subjects and encourage active participation of students in lesson. These findings has parallels with constructive approach. Teachers who embrace constructivist approach argue that different education method and techniques should be employed and for that emphasis should be placed on activities such as case study, project based learning, problem based learning, learning based on cooperation which feature active student inclusion. In the study, candidate teachers said that methods and techniques such as plain lecture, question answer and brainstorming can be used during learning/instructing phase and favored techniques such as cooperative learning, project based learning and problem based learning less. According to this, it can be said that candidate teachers do contemplate well about educational activities that include process and group activities during learning and instructing phase. Yeşilyurt (2013) has conducted a similar study which found that teachers often use methods and techniques such as plain lecture and question-answer and rarely use those such as cooperative, project and problem based learning as well as concepts map and brainstorming. Ocak et. al. (2012) said in his study that teachers avoid methods suggested by constructive approach and opt rather for plain lecture and question and answer. In contrast, in a similar study conducted by Ayvacı et. al. (2014), graduate students found to have embraced principles of constructive approach and the methods and techniques suitable for 5E model. This difference may stem from the selection of a different sample group.

In the study, candidate teachers designated teacher responsibilities as making assessment and evaluation, ensuring students fulfill goals, making revisions and asking questions while designated student responsibilities as answering questions, asking questions about the topics not well understood and making self assessment. Besides in this study, candidate teachers gave preference to oral examination, multiple-choice study and open-ended interpretive questions as methods and techniques that can be used in this phase. Accordingly, it can be said that candidate teachers from BÖTE department contemplate responsibilities of teacher and students in line with principles of constructive approach during assessment phase while embrace methods and techniques suggested by behavioral approach rather than alternative measurement tools suggested by constructive approach that can be used in this phase.

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