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## Examination of the Educational Sciences Questions of the Central Examination which is used for Teacher Assignments in terms of Cognitive Domain Level of the Bloom Taxonomy

İlker Usta, Muhammet Recep Okur, Sinan Aydin

Anadolu University Open Education Faculty

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### ABSTRACT

In this research, the educational sciences questions of the central examination which is used in Public Personnel Selection Examination (KPSS) in Turkey – that is the only criteria – for teacher assignments in Turkey have been investigated according to the qualitative study, documental analysis method. In this research, it is intended that the educational sciences questions in terms of cognitive domain level of the revised Bloom Taxonomy are examined. With this study, 80 educational sciences questions which are forwarded to teacher candidates in KPSS in 2013 are analyzed. The results show that the test consists of questions for lower-level cognitive domain competencies predominantly. It is also determined that there are few questions for higher-level cognitive domain competencies. Although there is a positive relationship between the scope of KPSS and the courses that the teacher candidates takes during their educations in faculty of education, selection of the teachers, which are going to address the higher-level cognitive domain competencies that are effective on education and training systems of constructivist philosophy, with the questions based on memorization rather than non-memorization creates anxiety. It is seen that the appropriateness validity of the examination is high because the questions in the KPSS and the content of the teacher training programs are in convenience with each other.

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## INTRODUCTION

Increasing the quality of the education is the focus of the basic debates at national and international level. In this regard, remarkable transformations were to be implemented in almost every field after the utilization of constructivist approach based education system since 2005. It is obvious that all of the components – from the design of educational programs to purposes of these, from the contents of the programs to learning and teaching practices, from teacher education programs to Public Personnel Selection Examination (KPSS) which is the only assignment criteria – are affected by this change.

With this new approach, it is aimed that the students who has higher-level cognitive and emotional skills, i.e. who has the competence to investigate, question, review knowledge, reveal new products, are educated. These goals can be reached by educating and assigning qualified teachers. Undoubtedly, education qualified teachers will provide the quality of the education be better and by this way qualified individuals be educated.

Due to the importance of the profession of school-teaching, which is known as an occupation in the professional status with the dimensions of individual, social, culture, science, and technology, teachers always have been have the most important duties and responsibilities (Aydin, 2009 and Uygun, 2008). Teachers should have some professional and personal qualifications in order to accomplish these duties and responsibilities. If teachers do not have vocational qualifications (domain knowledge, general culture and professional knowledge), they are not expected to be effective regardless of how much the personal qualifications of theirs are positive. Similarly, if the teachers cannot lead their students with the knowledge they have, it can be said that they will fail with the teaching duty even if they know the field of the topic well (Erden, 1998). Sisman (2001) emphasized that the knowledge, skills and competences which are necessary for the teachers in the process of teaching and learning should be gained before starting the teaching service, and indicated that vocational preliminary considerations have a great importance during the implementation. The programs applied in faculty of education, especially professional knowledge courses have a great importance for teachers being qualified teachers after the completion of their professional development. Teacher training programs generally involve

50% field knowledge and skills, 30% pedagogical knowledge and skills, and 20% general culture courses. Table 1 gives information about the ECTS of teaching profession in the degree program of the Faculty of Education and theory/practice hours.

In developed countries, teacher assignment is done by Ministries of Education in countries that have a centralized system and by local units and schools in countries that have local systems. There is not much centralized exam application which is applied for candidate teachers' selection. Instead of centralized exam, for example, teachers are selected by the school administration among the teachers who apply to that school by an interview in England (Dilaver, 1996) and the teachers are chosen according to the results of the exam which is prepared by the Teacher Training Institutes that is established within each university for teacher recruitment in France. The teachers are evaluated by a written exam that evaluates the field information of the candidates, a presentation that evaluates the ability to teach and communicate with the environment, and an interview in which interests and attitudes towards their profession are assessed and the ones that passed these steps are employed by Ministry of Education as intern (Demir and Gur, 2000, p.502).

Exams similar to KPSS which is used for teacher assignments in our country can be observed in Germany, Austria, France, Spain, Luxemburg, and some states of USA. These exams can be written whereas they are accomplished with interviews in Belgium, Greece, the Netherlands and Portugal (Gündođdu, Cimen and Turan, 2008). In USA, for teacher assignments, centralized exam system is used. Teachers are assigned by states and school districts. However, in order to be a teacher in a state, one should have the license, which is valid only within that state, given by that state after the higher education indicating that the candidate can be a teacher only within that state. There certain conditions for having this license. One of these conditions is to be successful with the teacher qualification exam which is held at the central level(ETS, 2004, cited by Yüksel, 2003).

**Table 1:** Teaching Profession Courses in Teacher Education Undergraduate Program.

| TEACHING PROFESSION COURSES INFORMATION         | Theory/Practice | ECTS |
|-------------------------------------------------|-----------------|------|
| 1. Introduction to Educational Sciences         | 3+0             | 4.0  |
| 2. Educational Psychology                       | 3+0             | 4.0  |
| 3. Principles and Methods of Teaching           | 3+0             | 4.0  |
| 4. Instructional Technology and Material Design | 2+2             | 4.0  |
| 5. Classroom Management                         | 2+0             | 4.0  |
| 6. Measurement and Evaluation                   | 3+0             | 4.0  |
| 7. School Experience                            | 1+4             | 4.0  |
| 8. Teaching Practice I                          | 2+6             | 6.0  |
| 9. Counseling                                   | 3+0             | 5.0  |
| 10. Teaching Practice II                        | 2+6             | 10.0 |
| TOTAL                                           | 24+18           | 49.0 |

Another point that is as important as the profession of teacher training is the problem of the determination of the ones who are going to be teachers. Within this scope, some selection and preliminary examinations have been conducted in Turkey since 1985. The first of these, which is teacher proficiency examination, is the first central selection-preliminary examination that has been conducted between the years 1985-1991 in Turkey which has been carried out by the Ministry of Education (MEB). The teacher proficiency examination has been abolished in 1992 and the assignments of the teachers have been carried out with the method of lottery depending on the needs of the ministry by considering that the teacher candidates who have graduated from their institution have the necessary qualifications. However, in many branches, because the graduates from the universities are much more than the need of the Ministry of Education, going back to the method of examination has been an obligation (Yüksel, 2003: 3). In 1999, Selection Examination for State Officers (DMS who is going to be assigned as a state officer as first time by Student Selection and Placement Center (OSYM). DMS was the central selection and preliminary examination that had to be taken by the candidates so as to be able to get assigned to any kind of institution of the state (including also the assignments of the teachers) in 1999 (Gündođdu *et al.*, 2007). The ones who were successful in this examination had the right to attend to the examinations of the state institutions and organizations that would be conducted by themselves. DMS was transformed into Central Preliminary Examination for Institutions (KMS) in 2001 (Yüksel, 2003).

DMS which was carried out in 1991 and KMS which was carried out in 2001 was united and an examination that is called Public Personnel Selection Examination (KPSS) was applied after 2002. KPSS is the central examination that is carried out for the purpose of preselecting the ones who shall be assigned to the professions that are entered by having an examination of special competition in state institutions and organizations with the selection of the ones who shall be assigned to the public service and missions for the first time. Everybody who would like to be assigned to all state institutions and organizations for the first time should have this examination with "General Regulations Related to the Examinations to Be Carried Out For the Ones Who Shall be Assigned to Public Missions for the First Time" that was issued at the date of 03.05.2002 in official gazette. The content of the examination and their frequencies are determined by both Prime Ministry State Personnel Directorate (DPB) and OSYM. The examination is prepared and carried out by OSYM

(Republic of Turkey, Official Gazette, 03.05.2002). All teacher candidates who would like to be teacher in Turkey should take this examination which is also named as KPSS-Being Teacher and be successful after the completion of at least 4-year education of university (OSYM, 2007).

The sections that are taken by the teacher candidates in the KPSS test consist of general culture, general skills and educational sciences. The statement that questions related to the departments of the teacher candidates from which they have graduated in addition to the general skills, general culture and educational sciences shall be asked to the teacher candidates taking KPSS examination has been declared which is a suggestion that came out in the National Teacher Strategy Workshop which was carried out by MEB in 2012 January and the implementation of domain questions has started for some branches. OSYM has prepared questions for 136 separate teaching branches as of 2012 for the domain examination and the examination has been carried out. When the examination is generally considered, 30% of the questions consist of general culture, 30% of them consist of educational sciences and 40% consist of branch knowledge. Test types and their scopes have been given in Table 2 (OSYM, 2012):

**Table 2:** The topics of KPSS and their distribution.

| GENERAL ABILITY                                                                       |                    |                     |                                                                                         |                    |                     |
|---------------------------------------------------------------------------------------|--------------------|---------------------|-----------------------------------------------------------------------------------------|--------------------|---------------------|
| Non-math Section                                                                      | Approximate Weight | Number of Questions | Math Section                                                                            | Approximate Weight | Number of Questions |
| It contains questions evaluating verbal reasoning skills, grammar and spelling rules. | %50                | 30                  | It contains questions evaluating numerical and logical reasoning skills.                | %50                | 30                  |
| LIBERAL EDUCATION                                                                     |                    |                     |                                                                                         |                    |                     |
| History                                                                               | Approximate Weight | Number of Questions | Geography of Turkey                                                                     | Approximate Weight | Number of Questions |
| Anatolian Seljuk Empire and the Turk States prior to it.                              | % 5                | 3                   | Turkey's Physical Characteristics                                                       | % 12               | 7                   |
| Ottoman Empire                                                                        | % 15               | 9                   | Turkey's Human Characteristics                                                          | % 5                | 3                   |
| Ataturk's Principles and History                                                      | % 20               | 12                  | Turkey's Economic Characteristics                                                       | % 13               | 8                   |
| Modern Turkish and World History                                                      | % 5                | 3                   |                                                                                         |                    |                     |
| Basic Civics                                                                          | Approximate Weight | Number of Questions | General, Cultural and Latest Socio-Economic Issues Associated with Turkey and the World | Approximate Weight | Number of Questions |
| Introduction to Law and General Public Law                                            | % 5                | 3                   |                                                                                         | % 10               | 6                   |
| Constitution                                                                          | % 5                | 3                   |                                                                                         |                    |                     |
| Administration                                                                        | % 5                | 3                   |                                                                                         |                    |                     |
| EDUCATIONAL SCIENCES                                                                  |                    |                     |                                                                                         |                    |                     |
| Course                                                                                | Approximate Weight | Number of Questions | Course                                                                                  | Approximate Weight | Number of Questions |
| Psychology of Learning                                                                | % 20               | 16                  | Principles and Methods of Teaching                                                      | % 20               | 16                  |
| Developmental Psychology                                                              | % 15               | 12                  | Program Development                                                                     | % 5                | 4                   |
| Measurement and Evaluation                                                            | % 15               | 12                  | Classroom Management                                                                    | % 5                | ---                 |
| Guidance and Special Education                                                        | % 15               | 12                  | Instructional Technology and Material Design                                            | % 5                | 4                   |

An important feature that is searched in these examinations is predictive validity because the purpose of the study is to select the ones that are more likely to be successful at the next stage (education, profession etc.) among the ones who are taking this examination. The realization levels of the selection examinations for this purpose are measured by considering the performances of the individuals generally in the school they have been chosen or their performances at work. While one of the validity proofs of the selection examinations which are bases to important decisions in education is the prediction power of these examinations at the future success of the students, another is the relation level of the examination and the students who are taking the examination related to their former learning (Aiken, 1971; Ozcelik, 1998; Baykul, 2000). Within this scope, it is seen in Table 1 and Table 2 that there is a positive relationship between the questions that are asked in especially KPSS Educational Sciences field and the lectures which have been taken during the education process.

In one of his studies, Eraslan (2004) has determined that the teacher candidates are preparing themselves for KPSS, but not for the teaching profession; in addition, at the last years of the teaching program, they experience the anxiety of KPSS and this anxiety causes to negative results in following the program. His emphasis on the

fact that KPSS has overwhelmed the school success has been one of the most important issues to be paid attention.

Within this scope, there are limited researches related to KPSS. The contents of the teacher training programs in the education faculties are expected to be in the same frame with that of KPSS examination questions. The reflection of the questions that have been asked in KPSS examination in the teacher training programs shall be beneficial in terms of educating qualified teachers. Although the implementation of teacher training programs and the more revelation of the scope and quality of KPSS content are desired, KPSS' affecting the implementation of the program and its content shall be one of the points that are questioned also in this study.

In this study, investigations according to the cognitive domain levels Bloom Taxonomy shall be conducted on the questions that are related to the educational sciences in 2013 KPSS.

### **Bloom Taxonomy:**

The most frequently used method for classification of the questions according to their levels is taxonomies which is used for educational targets by Bloom *et al.* According to Sonmez (2003:46), cognitive areas are the ones in which mental aspects of learned behavior preponderate. Goals and behaviors on the cognitive areas step of Bloom Taxonomy is arranged in order from simple to complex, from easy to difficult, and from concrete to abstract creating a prerequisite chain (Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation).

The taxonomy revised by Krathwohl (2002) along with the criticisms is turned into a two dimensional structure as knowledge and cognitive processes. Knowledge dimension is reclassified as factual, conceptual, procedural, and met cognitive knowledge; and cognitive dimension as recalling, comprehension, application, analysis, evaluation and creation.

Information and Cognitive Processes dimensions of renewed taxonomy is shown in Table 3 (Krathwohl, 2002).

**Table 3:** Two-Dimensional Structure of the Revised Cognitive Domain.

| The Cognitive Process Dimension<br>Knowledge Dimension | Recalling | Comprehension | Application | Analysis | Evaluation | Creation |
|--------------------------------------------------------|-----------|---------------|-------------|----------|------------|----------|
| a. Factual Knowledge                                   | X         |               |             |          |            |          |
| b. Conceptual Knowledge                                |           | X             |             | X        |            | X        |
| c. Operational Knowledge                               |           |               | X           |          |            |          |
| d. Metacognitive Knowledge                             |           |               |             |          |            |          |

Taxonomy whose knowledge dimension is revised is reorganized into four steps parallel to developments in cognitive psychology. In this new revision, metacognitive knowledge is added to knowledge dimension. The four categories constituting the knowledge dimension are as shown below (Krathwohl, 2009).

a. **Factual Knowledge:** Discipline-specific knowledge necessary for solving a problem.

b. **Conceptual Knowledge:** Information of relations between the basic elements in a large structure, which are related to each other

c. **Operational Knowledge:** The knowledge the consists of the criteria regarding the qualification criteria, techniques, methods and algorithms and inquiry methods on how something is done

d. **Metacognitive Knowledge:** Knowledge about general information. The knowledge consisting of someone's knowing and being aware of what she/he has as general information

**Cognitive Process Dimension of Revised Taxonomy** (Amer, 2006; Krathwohl, 2009; Cited by: Ari, 2011)

**1. Recalling:** Remembering, restoration of the related knowledge from the long-term memory. Skills: remember, define, list, tabulate, use appropriate, and schedule.

1.1 Identification

1.2 Recalling

**2. Comprehension:** Making sense out of tutorial posts consisting of oral, written and graphical communication, explaining the ideas and concepts. Skills: summarize, identify, review, sample, estimate, explain, place, realize, report, translate, and convert.

2.1 Interpretation

2.2 Example Demonstration

- 2.3 Classification
- 2.4 Summarizing
- 2.5 Inference
- 2.6 Comparison
- 2.7 Description

**3. Application:** Utilization or implementation of a method/operation in a given case, utilization of the information in the new situation. Skills: select, classify, demonstrate, dramatize, experience, use, experiment, interpret, compute, run, solve, use, sketch, configure, and set up.

- 3.1 Doing
- 3.2 Completion

**4. Analysis:** Disassembly of the material to its components or segments, differentiation of different pieces and identification of the type of relation of each piece with each other and the general structure and aim of the material. Skills: edit, compare, contrast, explain, criticize, differentiate, see the difference, question, test, and acquire.

- 4.1 Discrimination
- 4.2 Organizing
- 4.3 Attribution / basing

**5. Evaluation:** Reasoning a stand or a decision. Judging/coming to a decision based on criteria and standards. Evolution which was the six step in the older version is carried to fifth step in this version. Skills: appraise, sort, discuss, defend, conclude, judge, select, support, take action, evaluate, conclude, and give an opinion

- 5.1 Checking
- 5.2 Criticizing

**6. Creation:** It includes the forming a new product or idea using the pieces. Putting the pieces together in order to create a new product or form the consistent whole. It constitutes the top step of the new version. Skills: plan, gather, consolidate, build, create, produce, perform, design, create, formulate, and develop.

- 6.1 Creation
- 6.2 Planning
- 6.3 Generation

**Multiple-choice question appropriate for recalling step of Bloom Taxonomy:**  
**Which one of the below is not one of the principles of guidance and counseling?**

- A) Individual has the right to choose.
- B) Every individual is meritorious whatever the individual's religion, language and gender.
- C) Voluntariness constitutes the basis of guidance activities.
- D) Guidance activities requires teamwork.
- E) Guidance activities are held identically in each school.

**Multiple-choice question appropriate for comprehension step of Bloom Taxonomy:**

While explaining the functions of the brain in Science and Technology course, the teacher, Bahar, exemplifies Ankara on the map of Turkey.

**Which one can be the best explanation of the practice of the teacher, Bahar?**

- A) Case
- B) Role-playing
- C) Metaphor
- D) Demonstration
- E) Observation

**Multiple-choice question appropriate for application step of Bloom Taxonomy:**

Students' raw scores in a test of 24 questions with short answers are evaluated by giving 1 point for correct questions and 0 for others. In this test, the mean of raw scores of students is 10 and the standard deviation is 4. Thereafter, the raw scores are converted into the scores whose mean is 60 and standard deviation is 10.

The table below shows the standard scores of five students:

| Student | Standard Score |
|---------|----------------|
| Arzu    | 85             |
| Deniz   | 80             |
| Efe     | 70             |
| Banu    | 60             |
| Can     | 45             |

**Accordingly, which one is false?**

- A) The score of Can is below 1.5 standard deviation of the class mean.
- B) Banu answered less than half of the questions correctly.
- C) Arzu would answered all of the questions correctly if she had answered 3 more questions correctly.
- D) The number of right answers of Efe is more than the number of right answers of Banu.
- E) Deniz answered 18of the questions correctly.

**Multiple-choice question appropriate for analysis step of Bloom Taxonomy:**

In a study, it is taught to mice to push the pedal in order to gain a food prize. Then, in the 1. Day, a group of mice is not given the prize of pushing the pedal and the other group of mice is given shock after pushing the pedal. In the following three days, none of the mice is given the prize of pushing the pedal. The mice that are given shock pushed the pedal less times than the other group. However, since they are not given shock, the behavior of pushing pedal becomes similar to the first day and at the end of the fourth day, the behavior of pushing pedal of these two groups become exactly similar.

**According to the results of this study, which one cannot be said?**

- A) Long-term effects of the punishment are as persistent as the effects of positive enhancement.
- B) The effects of the punishment are similar to the effects of long-term recovery.
- C) The behavior can be repressed with punishment action but it can show up again later.
- D) Punishment is more effective than short-term recovery.
- E) Punishment is more effective than negative enhancement.

**Multiple-choice question appropriate for evaluation step of Bloom Taxonomy:**

The teacher, Zeynep, records her students into a grading scale after observing them according to some characteristics of them.

**For which one of the below the teacher, Zeynep, making a logical mistake?**

- A) Judging that the friendship relations of Sibel, who is new in the class, is not well upon seeing her sitting alone in the break.
- B) Judging that Aysel has leadership trait since she is successful with her courses.
- C) Rating her students generally at moderate levels in terms of characteristics she is inspecting.
- D) Judging that the students who get high scores in the exams are smart.
- E) Judging that the friendship relations of Ekin is not well since he is not successful with his courses.

**Multiple-choice question appropriate for synthesizing step of Bloom Taxonomy:**

**Which of the answer of teacher to a student who says: "My parents don't understand me, I feel so alone." would be an empathetic reaction?**

- A) "What do you think why your parents don't understand you?"
- B) "Could you be thinking wrong?"
- C) "Can you tell me about your childhood?"
- D) "You should tell this to them."
- E) "You want your parents to be more close to you."

Cognitive process steps of the revised taxonomy of Bloom is analyzed within the frame of above examples.

**The aim of the study**

In this study, 2013 Public Personnel Selection Examination Educational Sciences questions have been revised and it has been aimed at determining at which cognitive level they are intense after the analysis that is according to the Bloom Taxonomy.

The revised Bloom Taxonomy is a topic that can be counted as novel in literature. Although there are little amounts of research about this topic in Turkey, it is seen that the studies that are conducted in our country and abroad are carried out generally for the purpose of introducing the taxonomy (Tanik and Saracoglu, 2011). We face with this situation as a deficiency in literature related to the analysis of the questions according to the revised taxonomy which emphasizes how important the examination questions are. This study is expected to contribute at the point of filling that existent deficiency. In this study, the situation of the questions related to the educational sciences that teacher candidates encounter in KPSS according to the revised Bloom taxonomy and the relationship between the professional lectures they have attended before the examination and their education shall be interpreted. The results of this study shall catch the attention to an understanding based on taxonomy in the determination of assessment questions. When these points are taken into consideration, it is thought that the study shall contribute to the education and learning activities in the future.

For this purpose; answers have been sought to the questions below:

How is the distribution of domain questions in 2013 KPSS according to the cognitive domain taxonomy of Bloom?

#### Method:

Qualitative research can be defined as research that uses qualitative data collection methods such as observation, interview and document analysis and that follows a qualitative process in order to present the perceptions and incidents in the natural environment in a realistic and holistic way (Yildirim&Simsek, 2008: 39).

In this research which is a qualitative study, document analysis method is used. Document analysis is the investigation of the features of a certain text or document with content analysis via digitization (Karasar, 2011).

#### Documents:

In the study, the written document including the questions about professional teaching knowledge which were in the 2013 KPSS educational sciences has been used.

#### Data Analysis:

Firstly, a commission that consists of people who are experts at their fields has been formed for the purpose of carrying out the analysis of the data. The questions which have been requested to be analyzed have been sent to each field expert separately. The individual analyses that have come from the experts have been evaluated by the researchers. The questions on which there is no consensus have been resent to the field experts. At the end of the second cycle, the analyses that have come from the field experts have been evaluated and consensus at all questions have been completed. The questions related to this method have been separately revised by three experts of educational sciences and they have been analyzed in direction of the basic essentials that are formed by taking the properties of each stage of Bloom Taxonomy into consideration. A total of 80 questions that have been examined have been tried to be reached at a consensus. The descriptive analysis method has been used in the analysis of the data that have been attained in the study.

#### Findings and Interpretation:

The frequency and percentage distributions of 80 questions depending on the lectures that have been examined in this study in which it has been aimed at determining at which level of cognitive domain the questions of 2013 Public Personnel Selection Examination Educational Sciences are intensive by analyzing according to Bloom Taxonomy have been given in Table 4.

**Table 4:** The distribution of 2013 KPSS Educational Science Questions according to Bloom Taxonomy.

| The Cognitive Process Dimension<br>Courses   |                        | Recalling | Comprehension | Application | Analysis | Evaluation | Creation | Total |
|----------------------------------------------|------------------------|-----------|---------------|-------------|----------|------------|----------|-------|
|                                              | Psychology of Learning | f         | 3             | 9           | -        | 2          | 1        | 1     |
|                                              | %                      | 18,75     | 56,25         | -           | 12,5     | 6,25       | 6,25     | 100   |
| Developmental Psychology                     | f                      | 3         | 7             | -           | 3        | -          | -        | 12    |
|                                              | %                      | 25        | 75,0          | -           | 25,0     | -          | -        | 100   |
| Measurement and Evaluation                   | f                      | 2         | 6             | 4           | -        | 1          | -        | 13    |
|                                              | %                      | 15,3      | 46,1          | 30,7        | -        | 7,6        | -        | 100   |
| Guidance and Special Education               | f                      | 6         | 3             | -           | 1        | 1          | 1        | 12    |
|                                              | %                      | 50,0      | 25,0          | -           | 8,3      | 8,3        | 8,3      | 100   |
| Principles and Methods of Teaching           | f                      | 6         | 9             | -           | 1        | -          | -        | 16    |
|                                              | %                      | 37,5      | 56,25         | -           | 6,25     | -          | -        | 100   |
| Program Development                          | f                      | 1         | 3             | -           | -        | -          | -        | 4     |
|                                              | %                      | 25,0      | 75,0          | -           | -        | -          | -        | 100   |
| Instructional Technology and Material Design | f                      | 1         | 3             | -           | -        | -          | -        | 4     |
|                                              | %                      | 25,0      | 75,0          | -           | -        | -          | -        | 100   |
| Total                                        | f                      | 22        | 40            | 4           | 6        | 3          | 2        | 80    |
|                                              | %                      | 27,5      | 50,0          | 5,0         | 7,5      | 3,75       | 2,5      | 100   |

As it can be seen in Table 4, a total of 80 questions have been asked in 2013 KPSS Educational Sciences test. It is seen that 18.75% of the questions asked for "Learning Psychology" that forms 20% (16 questions) of the test is at the level of remembering, 56.25% is at the level of understanding, 12.5% is at the level of analysis and 6.26% is at the level of evaluation and synthesis. It is seen that 25% of the questions asked for "Developmental Psychology" that forms 15% (12 questions) of the test is at the level of remembering, 75% is at the level of understanding. It is seen that 15.3% of the questions asked for "Assessment and Evaluation" that

forms 15% (13 questions) of the test is at the level of remembering, 46.1% is at the level of understanding, 30.7% of the test is at the level of implementation and 7.6% of the test is at the level of evaluation. It is seen that 50% of the questions asked for "Guidance and Special Education" that forms 15% (12 questions) of the test is at the level of remembering, 25% is at the level of understanding and 8.3% of the test is at the level of analysis, evaluation and formation. It is seen that 37.5% of the questions asked for "Instructional Principles and Methods" that forms 20% (16 questions) of the test is at the level of remembering, 56.25% is at the level of understanding and 6.25% of the test is at the level of analysis. It is seen that 25% of the questions asked for "Program Development" that forms 5% (4 questions) of the test is at the level of remembering and 75% of the test is at the level of understanding. It is seen that 25% of the questions asked for "Instructional Technologies and Material Development" that forms 5% (4 questions) of the test is at the level of remembering and 75% of the test is at the level of understanding.

In addition, when the test is generally taken into consideration, it is seen that 50% of the questions is at the level of understanding, 25% of the questions is at the level of remembering, 7.5% of the questions is at the level of analysis, 5% of the questions is at the level of implementation, 3.75% of the questions is at the level of evaluation and 2.5% of the questions is at the level of formation.

### **Results and Suggestions:**

The aim of this study is to conduct the analysis of 2013 KPSS Educational Sciences questions and at which level they are according to the cognitive process dimensions of revised Bloom Taxonomy. As a result of the findings and interpretations that have been attained from the analysis of the gathered data for reaching at this aim, the following statements have been inferred.

It is seen that the appropriateness validity of the examination is high because the questions in the KPSS and the content of the teacher training programs are in convenience with each other. In addition to asking the lectures in the education faculties of the teacher candidates in the examinations, also the whether the examination is efficient in finding the one who can do the teaching profession, in other words, the predictive validity of the examination should be investigated.

The questions in 2013 KPSS majorly consist of questions at the level of understanding and remembering levels. A major part of the questions asked by OSYM to the students consist of questions that lead the students to memorization. It is seen that the examination has not been prepared in the light of constructivist approach because of the narrowness of the scope to the generally evaluation and formation cognitive dimension of the test that is required by the constructivist approach philosophy.

It is thought that the limited participation of the trend topics like distance education and e-learning that are accepted as the reflection of changing information and communication technologies to education shall decrease the predictive validity of the examination. The reflections of the novel developments in the field of educational technologies within the examination questions should be seen.

Based on this study, at the next stage, it shall be beneficial for taking KPSS as a whole and examining the general culture-skills, educational sciences and domain knowledge questions as a whole again.

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