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Determination of learning outcomes of curriculum development in education according to questions in KPSS (public personnel selection examination) educational sciences test

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Abstract

Learning outcomes are the first and most essential element of the curricula and the correct and rigorous determination of the learning outcomes is very important in order to ensure formal education in schools to be well-planned and to design and apply curriculums effectively. Because, the other elements of the curriculum which are content, educational situations and evaluation are determined and designed according to the learning outcomes. The purpose of this study is to determine the learning outcomes related to the scientific field of curriculum development in KPSS educational sciences test for teacher candidates. In this research, the questions about curriculum development in KPSS educational sciences test between 2001 and 2018 were analyzed by using descriptive survey model. A total of 174 questions were asked about the curriculum development discipline for 18 years in KPSS. By analyzing the questions, 76 learning outcomes about the scientific field of curriculum development in education were written.

Keywords: Curriculum development; learning outcomes; educational sciences; public personnel selection examination; KPSS

1. Introduction

Teachers' appointment in Turkey is applied in accordance with 20.02.2014 dated and 9th issue assize of court. According to the assize, the main principles of the issue of the first time teacher appointment were identified. Teacher appointments are based on having essential and sufficient level of general knowledge, and receiving special field education and pedagogical formation. From 2000 on, candidates who will be appointed as

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a teacher have been taken to a central examination held by OSYM (Student Selection and Placement Centre). Appointments are carried out according to the results of KPSS (Public Personnel Selection Examination). General ability and knowledge tests are applied to candidates in the first session of the test, which is applied in two sessions for all teaching fields. 120 questions including Turkish (30 questions), Mathematics (30 questions), History (27 questions), Geography (18 questions) and Citizenship and Up-to-date Information (15 questions) are available in the test. In the educational sciences test in the second session, a total of 80 questions including Curriculum Development in Education (5 questions), Teaching Principles and Methods (22 questions), Developmental Psychology (10 questions), Learning Psychology (10 questions), Counselling (6 questions), Measurement and Evaluation (12 questions) Instructional Technologies and Material Design (5 questions), Classroom Management (5 questions) are available (ÖSYM, 2019).

Some changes were made on the general regulations regarding the examinations which are applied to those who are appointed to their public service for the first time with 18 January 2007 dated, 26407 issue Official Gazette. It was aimed to do appointment by taking 50% of the results of the special field knowledge qualifications test which is applied by Ministry of National Education (MoNE) besides 50% of KPSS. The 12th Chamber of the State Council cancelled the special field knowledge examination on 10th April, 2007, which would have been conducted by Education Technologies General Directorate of MoNE, and made a decision to stop conducting. That the aforementioned examination creates dilemmas for regulations in itself and would damage the system which had been brought in order to provide the objectivity for the first admission to public services have been illustrated as reasons for this decision. The special field knowledge test could not be applied due to the fact that the regulation which brought forward the special field knowledge test was not appropriate for the law. However, 50 – question Special Field Knowledge Test (OABT) was held by OSYM in 2013 in the fields of Turkish, Elementary Mathematics, Science/Science and Technology, Social Studies, Turkish Language and Literature, History, Geography, Mathematics (High School), Physics, Chemistry, Biology, Religious Studies, Foreign Language for the first time. In the following years, School Counsellor Teaching, Elementary School Teaching and Pre-school Teaching were added to those fields. Within the scope of the protocol which was signed among Ministry of National Education, Directorate of State Personnel and Assessment Selection and Placement Centre, the fields of Religious Vocational High School Courses Teaching and Physical Education Teaching were also added to OABT, which was conducted in 2019 and the number of the questions, being 50, was raised to 75. It was explained that 45 questions for field knowledge and 30 questions for field education would be asked in the fields of Elementary School Teaching and Foreign Language (English), and 60 questions for field knowledge, 15 questions for field education regarding the other fields (ÖSYM, 2018). MoNE started to do post-2016 teacher appointments with interviews in addition to the applications of KPSS and OABT

although the 12th Chamber of the State Council cancelled the special field knowledge examination on 10th April, 2007, which would have been conducted by Education Technologies General Directorate of Ministry of National Education, and decided to stop conducting. Moreover, the number of the questions in the education sciences was reduced from 120 to 80 in 2013 as well as the application of OABT. Following 2013, 5 questions started to be asked in the science field of Curriculum Development in Education, where 12 questions were asked. While Curriculum Development in Education had taken place in the teacher education programs as a separate course until 1998, it appeared within the framework of Planning and Evaluating in Education between the years of 1998 and 2006. It was envisaged after 2006 that it would be instructed within the context of Teaching Principles and Methods. In the education year of 2018-2019, A course called Curriculum Development in Education was observed to be planned to take place in undergraduate teaching programs in its updating studies with the cooperation of Board of Higher Education. The content of the course was identified as follows (YÖK, 2019):

Main concepts regarding curriculum development; theoretical bases of curriculum; philosophical, social, historical, psychological and financial bases of teaching programs; features of curriculum development and teaching program; steps of curriculum development; basic elements of program (objectives, content, process, evaluation) and relation among the elements; classification of the objectives and their relation with the elements of the program; content organization approaches; identification of educational needs; curriculum development process and models; approaches of educational program design; models of program evaluation; program literacy; duties and responsibilities of teachers in development of instructional programs; features of instructional programs of MoNE; application of instructional programs; new approaches and attitudes in curriculum development in the world and Turkey.

It is a contradiction that, while Curriculum Development in Education is explained as a separate course title in the education sciences test of KPSS, such a course is not included in undergraduate teaching programs. The course of Curriculum Development in Education is available in undergraduate programs is regarded as a positive step.

The number of the applicants for KPSS education sciences test in 2018 was announced to be 440.311 by OSYM. The attendants who took the examination were identified to have an average of 38,986 in 80-question education sciences test (ÖSYM, 2018). When it is thought that even approximate 40 net answers were not achieved in an 80-question test, determination of learning outcomes related to the science fields which are asked in this test will contribute to those who attend not only the field test, but also the education sciences test.

The aimed learning outcomes are of target objectives which are chosen to bring students in. The process of curriculum development is initiated with the determination of the learning outcomes and other elements are determined according to the learning

outcomes and put into practice. Now that the process of planning and designing has been proceeded with this main element, which is expressed as goal, objective, learning outcome, aim, behavioral goal, aimed behavior in other resources, this first basic element, whether it is expressed learning outcome or objective, is determined according to needs and the other elements of the program are arranged in order that they will put into action the information, skill, behavior and feature which are expressed in this element (Karacaoğlu, 2018). The importance of the fact that teachers' need of pre-service and in-service education must be supplied in order for the programs to be successful has been presented by various studies. Furthermore, programs need to be improved within the scope of the fact that individuals, society and information accumulation of science and technology of the era should be the focus on the conjugate movement area of the objectives (Çelik, 2006). Adequate expression of the learning outcomes in the program design, determination of them based on certain criteria and applications of meticulous studies on them enables the program design to be settled down on accurate bases. Therefore, studies should be conducted in accordance with the points and criteria to which are paid attention in the identification of the learning outcomes in the programs. When the literature is reviewed, *the features of learning outcomes (objectives)*, and the points which should be taken into consideration in identifying and writing learning outcomes (objectives) are enlisted below (Büyükkaragöz, 1997; Demirel, 2008; Erden, 1998; Ertürk, 1984; Sönmez, 2008b; Varış, 1988):

Focus on needs: they should be determined according to needs and they should be in a way to supply student and society needs.

Unity: they should be associated with the content and should not be abstracted from the content.

Consistency: they should be appropriate for the interested teaching field and steps, and they should not contradict.

Durability: they should be of quality to support one another and should follow a sequence in an appropriate way for the content.

Accessibility: they should be feasible in a visible and measurable way at the end of the process.

Being behavior-centered: the behaviors and features expected from students at the end of the process should be expressed and it should be of quality to indicate learning feature.

Clarity: they should be clearly stated and comprehensible. The identical thing should be understood by anyone.

Limitedness: they should be in a certain extent and be limited with this certain extent.

Non-overlapping: their extent should not interfere with the extents of other objectives. They should be associated with one product.

Generality: they should point to a group or pattern of behaviors and they should be general to admit of learning by means of generalization at the same time. They should be peculiar to guide a student.

Focus on products: Objectives should express the learning outcome.

Contiguousness: they should complete one another and have a unity in themselves.

The learning outcomes are determined according to educational needs. The educational needs become an essential resource for the learning outcomes which will be designated. Approaches related to the determination of the educational needs can be defined in four groups as differences, democratic, descriptive and analytic approaches (Demirel, 2008; Kısakürek, 1983).

Differences approach: It is an approach which illustrates the difference between the observed behavior and the expected achievement by comparing them. Need comes into view with the difference between the expected level of skills and the available skills. To illustrate, that, after determining essential features in a group, this group is tested to check whether the group has these features or not and which features are possessed or not possessed is determined illustrates that this approach is adopted.

Democratic approach: Values and changes which are desired by the majority are the point in question. Organizations or communities with the democratic representative power which are described as pressure or reference groups reserves an important place here. The most distinct feature of this approach is that several people are involved in determination of needs and have the feature of coalescence with human relations and the society. If the objectives of a program are determined by taking into consideration the requests, interests and skills of the majority of a group, it means that the democratic approach is adopted. To give an example, it is present with the use of the democratic approach that an organization related to tourism and travel agents make suggestions on the required features or behaviors in the target group and these suggestions are taken into account while preparing a training program for a tourism-related educational establishment.

Analytical Approach: It is the process of examination of orientations about the changes depending on the national and international conditions, and determination of the need based on possible situations which may arise in the future. For example, it means that analytical approach is adopted supposing that behaviors and features associated with the use of the Internet are attained with the assumption that classes will be instructed on the Web in the following years.

Descriptive Approach: It is the analysis of need which is interested in the situation which arises from certain phenomena or educational experiences. To illuminate, the descriptive approach is utilized if the deficiencies of a group are observed and objectives are determined accordingly.

Teachers' success in their professional life is of great importance in the perspective of the future generations in the progress and development of a country. Analysis of the situations with which candidates will confront in the examination which they will take and in their professional life following graduation and determination of their needs based on the situation which arises from certain phenomena and educational experiences will be a congruous step. Because of these reasons, determination of required learning outcomes of teacher candidates related to not only KPSS, but also to functional education in their professional life will be beneficial. In this case, that the graduates of undergraduate teaching programs learn the process of curriculum development in education in a meaningful manner, and that they should have skills related to lesson plans which they will prepare is an important educational need to meet. Moreover, while the scientific fields which are asked in education sciences test of KPSS should be courses which should be instructed at faculties of education, lack of studies on the learning outcomes to which the questions are related and act from only course contents related to these courses in higher education are regarded as a problem by the researcher. Availability of questions about curriculum development in education sciences test in those years when a course with the title of Curriculum Development in Education was not present in education programs, and inexistence of the definition of the course in previous years have leaded the researcher to conduct this study. Accordingly, determination of the learning outcomes has been found necessary by the analysis of the questions asked regarding the discipline of curriculum development in education in education sciences test.

2. Purpose

The purpose of this study is to determine the learning outcomes associated with the scientific field of curriculum development in education, in the education sciences test of KPSS. For this purpose, learning outcomes will be determined according to main objectives, topic distribution and content strands related to the science field of curriculum development.

3. Methodology

3.1. Model of the Research

The research was conducted with qualitative data analyses in an appropriate way for a descriptive study in survey model. Because questions of curriculum development in education sciences test of KPSS between the years of 2001 and 2018 were trying to be analyzed, the model of descriptive survey and document review were utilized in the study, since survey models are appropriate models for researches which aim at describing a past or present situation as it is (Karasar, 1999). The questions which were asked in

KPSS 2001–2018 term were taken into account in determination of the target objectives and learning outcomes which will form a basis for to the instruction of these topics were designated in that regard. Descriptive approach was applied seeing that the analysis of the current situation was performed as the analysis of the posed questions was held. The descriptive need recognition approach which was used in determination of learning outcomes in curriculum development in education which is interested in the situation which arises from certain phenomena and educational experiences (Demirel, 2008; Kısakürek, 1983). The learning outcomes are determined through the document analysis regarding the KPSS questions and the descriptive approach was adopted since the present situation about the examination was descripted. The principles of writing learning outcomes were taken into consideration while determining the learning outcomes. Cognitive field learning outcomes were concentrated on, because KPSS is an examination which is carried out with the goal of testing cognitive competences.

3.2. Data Collection

The data needed for the research was consist of the questions about curriculum development in the educational sciences test of KPSS between 2001 and 2018. The following process is followed in the collection of data used in the research:

1-The related literature was reviewed.

2-Data were collected through the review of the examinations regarded as data resources for this research. These data were obtained by analyzing the previously asked questions which are released by ÖSYM on its own website.

3.3. Data Analysis

The content related to the questions about the field of Curriculum Development in Education in KPSS was determined and learning outcomes were designated in accordance with the level of the question by content analysis. For the content analysis, first of all, the necessary original documents were reached by way of the previously asked questions link which is released by ÖSYM, and then questions of curriculum development in education sciences tests which had been applied for 18 years were determined. Afterwards, each question is examined in order to identify the topic of the questions. Later on, the questions were classified in terms of the topic categories and the level of the questions was detected. How many questions were asked from which category was determined in order to specify which results they revealed regarding the research problem. Learning outcomes were determined by taking in what level and about which topic questions were asked into consideration.

4. Findings

The questions which were asked in education sciences test of KPSS between the years 2001–2018 were analyzed and the questions were found to be associated with the following topics:

- Basic concepts on education
- Gradual classification of programs
- Basics of curriculum development
- Designing approaches and models in education programs
- Planning of curriculum development
- Preparing program draft
- Instructional plans
- New perspectives in education and curriculum development

After the topics were identified, the questions which were asked under these topics were analyzed, and how many questions had been asked about which topic for 18 years in KPSS were determined. The distribution of the questions related to the topics is provided in Table 1:

Table 1: Distribution of questions of curriculum development in the education sciences test of KPSS according to the topics

Topics of Curriculum Development in Education	**frequency (f)**	**percentage (%)**
Basic concepts on education	9	5,20
Gradual classification of programs	8	4,60
Basics of curriculum development	21	12,00
Designing approaches and models in education programs	14	8,00
Planning of curriculum development	19	11,00
Preparing program draft	84	48,30
Instructional plans	10	5,70
New perspectives in education and curriculum development	9	5,20
TOTAL	174	100

When Table 1 is analyzed, a total of 174 questions concerning the scientific field of curriculum development in education have been asked in KPSS for 18 years. 12 questions about curriculum development in education were asked between the years of 2001–2012 each year and 144 questions were posed in 12 years. A total of 30 questions from 5 questions every 6 years were asked in the education sciences test of KPSS each year, which was held between the years of 2013-2018. 84 questions were asked under the title

of preparing program draft. Approximately half of the posed questions are collected under this title. The second title on which the questions were focused was found out to the scientific (philosophical, psychological, sociologic, etc.) bases of the curriculum development with 21 questions. The content of design (need recognition and study groups) of curriculum development about which 19 questions were asked takes place in the third rank. 10 questions about instructional plans, 9 questions about new perspectives in education and curriculum development and 8 questions about gradual classification of programs successively constitute the rest of the questions of curriculum development. When the distribution of the questions is considered, it is observed that they are collected in eight different headings. When it is thought that these headings are regarded very extensive and only five questions have been asked in the recent years, candidates can be told to be responsible for quite pretty much content. It is understood that five questions are asked each year about this extensive content and that the attendants should have obtained a higher number of learning outcomes about this content.

After the topics of the questions of curriculum development in the education sciences test of KPSS between the years of 2001–2018 were identified, learning outcomes were designated according to the distribution of the questions to the topics included in each heading and their level.

The following learning outcomes were determined according to the ***main topics*** related to the questions posed in the education sciences test of KPSS related to the course of curriculum development in education.

-They will be able to know basic concepts on education.

-They will be able to know basic concepts on curriculum development.

-They will be able to explain scientific bases of curriculum development by exemplification.

-They will be able to understand the designing approaches of educational programs.

-They will be able to determine the differences in models of curriculum development in education by comparing them.

-They will be able to explain the processes regarding the design of curriculum development.

-They will be able to explain the operations related to the steps in the process of program drafting respectively.

-They will be able to comprehend new perspectives in education and curriculum development.

After the topics of the questions of curriculum development in the education sciences test of KPSS between the years of 2001–2018 were determined, the distribution of the

questions to the topics in each heading was identified. The distribution of the questions related to the topic of the ***basic concepts of education*** is provided in Table 2:

Table 2: Distribution of the questions in the education sciences test of KPSS according to the topic of the **basic concepts of education**

Basic Concepts on Education	**frequency (f)**	**percentage (%)**
Relations in concepts	1	11,11
Education (formal, informal, common-public and organized)	3	22,22
Teaching	1	11,11
Learning	2	22,22
Culture	1	11,00
Fundamentals and general principles of Turkish National Education	1	11,11
TOTAL	9	100

The distribution of the questions asked in the topic of the ***basic concepts of education*** between the years of 2001–2018 according to the sub-headings is observed in Table 2. It is understood in this distribution that 3 questions are asked about the concept of education and the subjects of formal, informal, common-public education and organized education and 2 questions are asked about the concept of learning. When the table is analyzed, one question for each field of teaching, learning (experience, behavior, etc.), culture, main principles and fundamentals and general principles of Turkish National Education, relations between the basic concepts associated with the education is asked. Even though these subjects are concepts directly related to curriculum development in education, they can be expressed to be included in the course of introduction to education in teacher training programs. Some questions were determined to test more than one learning outcome.

The following learning outcomes were designated as a consequence of the content analysis which was applied on the questions about the ***basic concepts of education*** in the education sciences test of KPSS:

-They will be able to define the basic concepts on education.

-They will be able to differentiate the concepts of culture, acculturation and life.

-They will be able to understand the perspectives of different educationists and scientists regarding the education.

-They will be able to explain the features of the education.

-They will be able to classify the functions of the education.

-They will be able to differentiate formal and informal education.

-They will be able to differentiate common-public education and organized education.

-They will be able to recall the goals of stages of the common-public education.

-They will be able to explain the relation among the concepts of learning, teaching and education with examples.

-They will be able to comprehend the fundamentals which organize Turkish National Education.

-They will be able to differentiate the general principles of Turkish National Education.

-They will be able to comprehend the organizational structure of Turkish National Education.

The distribution of the questions about the ***gradual classification of the programs*** in KPSS between the years of 2001–2018 is illustrated in Table 3:

Table 3: Distribution of the questions in the education sciences test of KPSS according to the topic of the **gradual classification of programs**

Gradual Classification of Programs	**frequency (f)**	**percentage (%)**
Instructional programs, curriculums and lesson plans	1	12,50
Features of curriculums (flexibility, functionality etc.)	3	37,50
Types of curriculums (hidden, in-the-application, extra etc.)	4	50,00
TOTAL	8	100

The distribution of the questions asked in the topic of the ***gradual classification of programs*** between the years of 2001–2018 according to the sub-headings is illustrated in Table 3. The highest number of the questions was determined to be from types of programs in this content with 4 questions. Question types related to hidden curriculum from these program types were encountered especially after 2008. Judging from this finding, it can be expressed that the hidden curriculum was considered significant by field experts. In the previous years, questions about features of the education program, especially flexibility, were encountered. That teachers need to know that the program is flexible in different situations can be stated to be minded by field experts. It is seen in the table that 3 questions are asked in relation to features of the program such as flexibility, functionality and feasibility. It is indicated in the table that one question is asked about education, instruction and curriculums. That one question is asked about such an important course can stem from the fact that these programs cannot be separated from one another with strict lines. Likewise, the posed question is about correct array of these programs from the most extensive to the least extensive.

The following learning outcomes were designated as a consequence of the content analysis which was applied on the questions about the ***gradual classification of programs*** in the education sciences test of KPSS.

-They will be able to differentiate types of curriculums.

-They will be able to explain types of curriculums with examples.

-They will be able to remember definitions of education, instruction and curriculums.

-They will be able to explain the relation between curriculums and plans.

-They will be able to explain benefits and features of curriculums with examples.

-They will be able to explain the relation of curriculums with instruction.

-They will be able to define the basic elements of curriculums.

-They will be able to remember basic concepts regarding curriculum development.

The distribution of the questions about the ***basics of the curriculum development*** in KPSS between the years of 2001–2018 is illustrated in Table 4:

Table 4: Distribution of the questions in the education sciences test of KPSS according to the topic of the **basics of curriculum development**

Basics of Curriculum Development	**frequency (f)**	**percentage (%)**
Historical base	1	4,76
Financial base	-	-
Social base	5	23,80
Subject field base	-	
Individual base	1	4,76
Psychological base	3	14,30
- Impact of cognitive and behaviourist theories		
Philosophical base	11	52,38
- Philosophical trends		
- Educational philosophies		
TOTAL	21	100

When Table 4 is analyzed, the distribution of 21 questions in the topic of ***basics of curriculum development*** asked between the years of 2001–2018 according to the subheadings is seen. The highest number of questions, more than half of the questions, asked in this content is understood to be associated with philosophical base with 11 questions. Questions about this subheading were focused on especially educational philosophies (Essentialism, Prennialism, Progressivism and Reconstructionism). It can be stated under the light of this information, that philosophical movements, specifically educational philosophies, were attached importance to by field experts. It is obvious in the table that the mostly asked questions after the philosophical base were about social base with 5 questions and psychological base with 3 questions. Only one question was asked about individual and historical base.

The following learning outcomes were designated as a consequence of the content analysis which was applied on the questions about the ***basics of curriculum development*** in the education sciences test of KPSS:

-They will able to order the scientific bases of curriculum development.

-They will able to explain how the bases of the curriculum development affect curriculum development.

-They will able to explain the relation between the history and process of curriculum development.

-They will able to give an example on the features of financial base and feasibility in curriculum development.

-They will able to explain the relation between the needs which make sources for objectives with the bases of social, individual and subject area.

-They will able to order the topics which are benefitted from the psychology (learning theories) in curriculum development.

-They will able to explain the impact of behaviorist and cognitive theories on curriculum development.

-They will able to differentiate the differences of behaviorist and cognitive theories based on their impacts on curriculum development.

-They will able to order the topics which are benefited from the philosophy in curriculum development.

-They will able to differentiate the philosophical movements which affect the education.

-They will able to order the features of the educational philosophies (movements).

-They will able to differentiate the impacts of the educational philosophies on curriculum development and learning process.

-They will able to understand the main features of the philosophical movements.

The distribution of the questions about the ***designing approaches and models*** of the curriculum development in KPSS between the years of 2001–2018 is illustrated in Table 5:

Table 5: Distribution of the questions in the education sciences test of KPSS according to the topic of the **designing approaches and models**

Designing Approaches and Models	**frequency (f)**	**percentage (%)**
Designing approaches (Patterns) - Topic-centred designs - Student-centred designs - Problem-centred designs	13	92,85
Models of Curriculum Development (Taba Model, Tyler Model etc.)	1	7,15
TOTAL	14	100

When Table 5 is analyzed, the distribution of 14 questions in the topic of the ***designing approaches and models*** of the curriculum development asked between the years of 2001 – 2018 according to the subheadings is observed. The highest number of questions asked in this content is understood to be associated with designing approaches with 13 questions. Only one question was asked about the models of the curriculum development.

The following learning outcomes were determined as a result of the content analysis which was conducted on the questions about the ***designing approaches and models*** of the curriculum development in the education sciences test of KPSS:

-They will able to order the primary designing approaches used in curriculum development.

-They will able to differentiate the student, subject and problem-based curriculums by paying attention to their main features.

-They will able to order the features of subject-based curriculums.

-They will able to order the features of student-based curriculums.

-They will able to order the features of problem-based curriculums.

-They will able to mark by choosing which designing approach the given features belong to.

-They will able to order the primary models used in the curriculum development.

-They will able to estimate the steps of primary models of the curriculum development.

-They will able to explain the differences in the curriculum development models.

The distribution of the questions about the ***planning of the curriculum development*** in KPSS between the years of 2001–2018 is illustrated in Table 6:

Table 6: Distribution of the questions in the education sciences test of KPSS according to the topic of the **planning of curriculum development**

Planning of Curriculum Development	**frequency (f)**	**percentage (%)**
Need recognition	9	47,37
Steps of need recognition	2	10,52
Approaches of need recognition	2	10,52
Techniques of need recognition	4	21,06
Study groups of curriculum development	2	10,52
TOTAL	19	100

The distribution of 14 questions in the topic of the ***planning of the curriculum development*** asked between the years of 2001–2018 according to the subheadings is observed in the Table 6. The highest number of questions asked in this content is understood to be related to the process of need recognition with 9 questions. When the table is reviewed, it is seen that 4 questions are asked about the techniques of need recognition (Delphi, DACUM, observation, etc.). Two questions were asked about the steps and approaches of need recognition and study groups.

The following learning outcomes were determined as a result of the content analysis which was applied on the questions about the ***planning of the curriculum development*** in the education sciences test of KPSS:

-They will be able to order the transactions which will be carried out in the planning stage of curriculum development.

-They will be able to order the names of the teams and people who constitute the teams which are organized in curriculum development.

-They will be able to differentiate the teams which are organized in curriculum development by paying attention to their tasks.

-They will be able to explain the approaches used in the need recognition with examples.

-They will be able to differentiate the techniques used in the need recognition by taking to their state of use.

The distribution of the questions about the ***preparation of program draft*** in KPSS between the years of 2001 – 2018 is illustrated in Table 7:

Table 7: Distribution of the questions in the education sciences test of KPSS according to the topic of the **preparation of program draft**

Preparation of Program Draft	**frequency (f)**	**percentage (%)**
Determination of the aimed objectives	9	10,71
Transformation of the objectives into behaviours	2	2,38
Points to be considered in determination of objectives	2	2,38
Gradual classification of objectives (Bloom vb. Taxonomies)	18	21,43
Selection and organization of the content	8	9,52
Approaches of content organization (Linear, spiral, modular etc.)	14	16,67
Organization of learning-teaching process	15	17,86
Process of evaluation	9	10,72
Curriculum evaluation	3	3,57
Models of curriculum evaluation	2	2,38
Inspection of the developed curriculum	2	2,38
TOTAL	84	100

The distribution of 84 questions in the topic of the ***preparation of program draft*** asked between the years of 2001–2018 according to the subheadings is observed in the Table 7. More than half of the totally 84 questions asked are collected in three sub-headings. These three subjects are the approaches of gradual classification of objectives, arrangement of the learning-teaching process and content arrangement. The subject about which the highest number of the questions is asked is gradual classification of the objectives. The number of the questions related to this topic, especially Bloom Taxonomy, is 18. 15 questions were asked about the arrangement of the learning-teaching process and activity planning. These practice-based questions tried to be formed based on the scenarios which teacher may encounter. The number of the questions asked about the approaches of the content development, which is more hypothetical field is seen to be 14. 9 questions were asked about determination and evaluation process of the aimed objectives, thereby the questions of KPSS are observed to focus on objective, content, learning-teaching process and evaluation which are four main elements of the programs. Another data which is at the quality of supporting this is that 8 questions were asked about selection and arrangement of the content besides 14 questions were asked about the approaches of the content arrangement. It is illustrated on the table that 3 questions were asked about the evaluation aspect of the program and 2 questions were asked about the program evaluation. 2 questions were asked about the points which should be taken into consideration in determination of the objectives which were the first basic element. The fact that 2 questions about conversion of the objectives into behaviors were included in the first years of KPSS approved itself at the end of the content analysis. The reason why no questions about this topic are any longer included can be stated to be that the expressions of objective and behavior are not utilized in the application. 2 questions were

asked about trial of the developed program in eighteen years, which is also called application of the program.

The following learning outcomes were designated as a consequence of the content analysis which was applied on the questions about the ***preparation of program draft*** in the education sciences test of KPSS:

-They will be able to order the steps of the process of curriculum development.

-They will be able to know the features which should be present in the learning outcomes (objectives) of curriculums.

-They will be able to choose and circle in which field and at which level a given expression of learning outcome is according to Bloom's Taxonomy.

-They will be able to understand levels and names of the objectives in the application.

-They will be able to differentiate between objective taxonomy in application and Bloom's objective taxonomy.

-They will be able to understand the innovations related to the learning outcomes in the programs.

-They will be able to distinguish the skills desired to be gained in the curriculums

-They will be able to know the features of the curriculums.

-They will be able to distinguish content editing (programming) approaches.

-They will be able to list the basic features which should be found in textbooks.

-They will be able to know the features which curriculums should possess in the teaching-learning process.

-They will be able to distinguish hint, feedback, correction, reinforcement and active participation.

-They will be able to know the points to be taken into consideration when designing the evaluation process of the programs.

-They will be able to explain the importance of curriculum evaluation in the process of curriculum development.

-They will be able to distinguish contemporary measurement and evaluation approaches.

-They will be able to classify the types of evaluation made in accordance with the purpose.

-They will be able to distinguish program evaluation models.

-They will be able to list the stages of the implementation (testing) process of the designed programs.

The distribution of the questions about the ***instructional plans*** in KPSS between the years of 2001–2018 is illustrated in Table 8:

Table 8: Distribution of the questions in the education sciences test of KPSS according to the topic of the **instructional plans**

Instructional Plan	**frequency (f)**	**percentage (%)**
Process and importance of planning in instruction	4	40
Points to be considered in instructional plans	3	30
Yearly plans	2	20
Lesson plans	1	10
TOTAL	10	100

The distribution of the questions in the topic of the ***instructional plans*** asked between the years of 2001–2018 according to the subheadings is observed in the Table 8. It is understood from the table that the subject from the heading of curriculums about which 10 questions are raised about which the number of the mostly-asked questions is the process and importance of planning in teaching with 4 questions. 3 questions were asked about the points which should be considered in curriculums. It is seen in the table that the number of the questions about the curriculums is 2 and the number of the questions about lesson plans is 1.

The following learning outcomes were determined as a result of the content analysis which was applied on the questions about the ***instructional plans*** in the education sciences test of KPSS.

-They will be able to list the names of instructional plans.

-They will be able to know the points and principles to be considered while preparing the instructional plan.

-They will be able to explain the benefits, importance and necessity of planned work with examples.

The distribution of the questions about the ***new perspectives in education and curriculum development*** in KPSS between the years of 2001–2018 is illustrated in Table 9:

Table 9: Distribution of the questions in the education sciences test of KPSS according to the topic of the **new perspectives in education and curriculum development**

New Perspectives in Education and Curriculum Development	**frequency (f)**	**percentage (%)**
New perspectives and trends in education	4	44,44
New perspectives and trends in curriculum development	2	22,22
Skills desired to be attained in contemporary curriculums	3	33,33
TOTAL	9	100

The distribution of the questions in the topic of the ***new perspectives in education and curriculum development*** asked between the years of 2001–2018 according to the subheadings is observed in the Table 9. It is understood that totally 9 questions are asked and the mostly-posed questions were related to new perspectives and trends in education with 4 questions. When the table is analyzed, it is seen that 2 questions were asked about new perspectives and trends in curriculum development. 3 questions were raised about the skills desired to be attained through contemporary programs. The questions about the heading of new perspectives in education and curriculum development are seen to have become dense in 2005 and later. The reason can be expressed to be that student-centered programs have been put into practice since the years of 2004-2005.

The following learning outcomes were determined as a result of the content analysis which was applied on the questions about the ***new perspectives in education and curriculum development*** in the education sciences test of KPSS.

-They will be able to select and mark the common/different features of new perspectives and approaches in education.

-They will be able to list the names of new/contemporary approaches which influence curriculum development.

-They will be able to distinguish new/contemporary approaches which affect curriculum development.

-They will be able to list the basic features of the programs in the application.

-They will be able to distinguish the basic skills to be acquired in the programs in the programs.

-They will be able to recall information about social activities and student communities which are important in the programs in the application.

5. Conclusion and Discussion

Based on the findings of the research, the following conclusions were attained:

1. It was determined that a total of 174 questions were asked about curriculum development in education for 18 years in KPSS. 12 questions were asked about curriculum development in education every year between the years of 2001-2012, so 144 questions were posed in 12 years. A total of 30 questions from 5 questions were raised in the education sciences test of KPSS every year, which were held between the years of 2013–2018. A significant focus of the questions is seen to be on the main elements related to the process of curriculum development in the heading of preparation of program draft. It could be stated that the course content of curriculum development in education in undergraduate teaching programs fits with the questions asked in KPSS. This course content was put into action by YÖK (2019) in 2018.
2. 84 questions about the heading of preparation of program draft were raised in 18 education sciences test applied within the context of KPSS. Nearly half of the questions are collected under this heading. The second heading on which the questions are focused is scientific (philosophical, psychological, sociological etc.) bases of curriculum development with 21 questions. Planning of curriculum development (need recognition and study groups), which 19 questions were asked about, take place in the third rank. 10 questions about instructional plans, 9 questions about basic definitions about education and new perspectives in education and curriculum development, 8 questions about gradual classification of programs successively constitute the rest part of the questions of curriculum development. When the distribution of the questions is analyzed, it is seen to be collected in eight different headings. When it is considered that these headings are regarded very extensive and only five questions have been asked in the recent years, it is found out that candidates are responsible for quite pretty much content. In the study which was conducted by Başkan and Alev (2009), it was concluded that a limited part of behaviors which are attained in teaching professional courses is asked in KPSS.
3. 8 basic learning outcomes were determined related to the scientific field of curriculum development in education. These learning outcomes are as follows:

- They will be able to know basic concepts on education.
- They will be able to know basic concepts on curriculum development.
- They will be able to explain scientific bases of curriculum development by exemplification.
- They will be able to understand the designing approaches of curriculums.

- They will be able to determine the differences in models of curriculum development in education by comparing them.
- They will be able to explain the processes regarding the design of curriculum development.
- They will be able to explain the operations related to the steps in the process of program drafting respectively.
- They will be able to comprehend new perspectives in education and curriculum development.

4. After the headings of the questions of curriculum development in the education sciences test of KPSS between the years of 2001–2018 were identified, the distribution of the learning outcomes to the topics included in each heading was designated. A total of 76 learning outcomes were designated following the analysis of the questions about the determined subjects. These learning outcomes are as the following:

- They will be able to define the basic concepts on education.
- They will be able to differentiate the concepts of culture, acculturation and life.
- They will be able to understand the perspectives of different educationists and scientists regarding the education.
- They will be able to explain the features of the education.
- They will be able to classify the functions of the education.
- They will be able to differentiate formal and informal education.
- They will be able to differentiate common-public education and organized education.
- They will be able to recall the goals of stages of the common-public education.
- They will be able to explain the relation among the concepts of learning, teaching and education with examples.
- They will be able to comprehend the fundamentals which organize Turkish National Education.
- They will be able to differentiate the general principles of Turkish National Education.
- They will be able to comprehend the organizational structure of Turkish National Education.
- They will be able to differentiate types of programs.
- They will be able to explain types of programs with examples.
- They will be able to remember definitions of education, instruction and curriculums.

- They will be able to explain the relation between programs and plans.
- They will be able to explain benefits and features of programs with examples.
- They will be able to explain the relation of programs with instruction.
- They will be able to define the basic elements of programs.
- They will be able to remember basic concepts regarding curriculum development.
- They will able to order the scientific bases of the curriculum development.
- They will able to explain how the bases of the curriculum development affect curriculum development.
- They will able to explain the relation between the history and process of curriculum development.
- They will able to give an example on the features of financial base and feasibility in curriculum development.
- They will able to explain the relation between the needs which make sources for the objectives with the bases of social, individual and subject area.
- They will able to order the topics which are benefitted from the psychology (learning theories) in curriculum development.
- They will able to explain the impact of behaviorist and cognitive theories on curriculum development.
- They will able to differentiate the differences of behaviorist and cognitive theories based on their impacts on curriculum development.
- They will able to order the topics which are benefited from the philosophy in curriculum development.
- They will able to differentiate the philosophical movements which affect the education.
- They will able to order the features of the educational philosophies (movements).
- They will able to differentiate the impacts of the educational philosophies on curriculum development and learning process.
- They will able to understand the main features of the philosophical movements.
- They will able to understand the main features of other philosophical movements.
- They will able to order the primary designing approaches used in curriculum development.
- They will able to differentiate the student, subject and problem-based programs by paying attention to their main features.

- They will able to order the features of subject-based curriculums.
- They will able to order the features of student-based curriculums.
- They will able to order the features of problem-based curriculums.
- They will able to mark by choosing which designing approach the given features belong to.
- They will able to order the primary models used in curriculum development.
- They will able to estimate the steps of primary models of curriculum development.
- They will able to explain the differences in curriculum development models.
- They will be able to order the transactions which will be carried out in the planning stage of curriculum development.
- They will be able to order the names of the teams and people who constitute the teams which are organized in curriculum development.
- They will be able to differentiate the teams which are organized in curriculum development by paying attention to their tasks.
- They will be able to explain the approaches used in the need recognition with examples.
- They will be able to differentiate the techniques used in the need recognition by taking to their state of use.
- They will be able to order the steps of the process of the curriculum development.
- They will be able to know the features which should be present in the goals (objectives) of curriculums.
- They will be able to choose and circle in which field and at which level a given expression of objective is according to Bloom's Taxonomy.
- They will be able to understand levels and names of the objectives in the application.
- They will be able to differentiate between objective taxonomy in application and Bloom's objective taxonomy.
- They will be able to understand the innovations related to the gains in the curriculums.
- They will be able to distinguish the skills desired to be gained in the curriculums.
- They will be able to know the features of the curriculums.
- They will be able to distinguish content editing (programming) approaches.
- They will be able to list the basic features which should be found in textbooks.

- They will be able to know the features which programs should possess in the teaching-learning process.
- They will be able to distinguish hint, feedback, correction, reinforcement and active participation.
- They will be able to know the points to be taken into consideration when designing the evaluation process of the curriculums.
- They will be able to explain the importance of program evaluation in the process of curriculum development.
- They will be able to distinguish contemporary measurement and evaluation approaches.
- They will be able to classify the types of evaluation made in accordance with the purpose.
- They will be able to distinguish program evaluation models.
- They will be able to list the stages of the implementation (testing) process of the designed programs.
- They will be able to list the names of instructional plans.
- They will be able to know the points and principles to be considered while preparing the instructional plan.
- They will be able to explain the benefits, importance and necessity of planned work with examples.
- They will be able to select and mark the common/different features of new perspectives and approaches in education.
- They will be able to list the names of new/contemporary approaches which influence curriculum development.
- They will be able to distinguish new/contemporary approaches which affect curriculum development.
- They will be able to list the basic features of the programs in the application.
- They will be able to distinguish the basic skills to be acquired in the programs in the programs.
- They will be able to recall information about social activities and student communities which are important in the programs in the application.

5. At the end of the analysis of the questions which were raised in the education sciences test of KPSS between the years of 2001–2008, the content of curriculum development in education was determined as main concepts regarding curriculum development, gradual classification of programs, basics of curriculum development,

designing approaches and models of instructional programs, planning of curriculum development, preparation of program draft, instructional plans, new perspectives in education and curriculum development. It was appointed that the course content in the undergraduate teaching programs, which YÖK carried into effect in 2018-2019 education year, resembled to this course content. In the study where Deryakulu (2011) analyzed the relation of "General Competences of Teaching Profession", which was released by MoNE in 2006, with sub-sufficiency/performance indicators regarding the field of Instructional Technologies, it was observed that 20.8% of the questions included in the Education Sciences test which was applied in 2007, 12.5% of the questions available in the test applied in 2008, 14.2% of the questions present in the test conducted in 2009, and 15.8% of the questions included in the test applied in 2010 correlated with the sub-sufficiency/performance indicators regarding the Instructional Technologies field of General Competences of Teaching Profession.

6. Suggestions

The following suggestions were proposed under the light of the results of the research.

1. The determined learning outcomes can be taken into account while programs, plans and courses of curriculum development in education are prepared.
2. When that the course of curriculum development in education is a separate course in recent undergraduate teaching programs and owns a wide content according to 76 learning outcomes is thought, the weight of this discipline can be increased in the educational sciences test of KPSS. The number of the questions about this field of science about which 5 questions are raised in the current application can be increased. Therefore, a positive step will have been taken regarding the content validity of the examination.
3. Instructors and lecturers who teach in undergraduate teaching programs and pedagogical formation programs can take the determined learning outcomes into consideration while designing and applying their courses.
4. The research can be repeated by enriching data entry, using different data collection techniques in addition to the question analysis.
5. In similar to this research, which was conducted in curriculum development in education, further researches can be applied related to developmental psychology, learning psychology, counselling, measurement and evaluation, classroom management and instructional technologies.

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