Assessment of the General Secondary Education Curricula in Turkey

Türkiye’de Genel Ortaöğretim Programlarının Değerlendirilmesi

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Abstract

In this qualitative study, an analysis and comparison of the current and previous general secondary education curricula were carried out through document analysis. The methodology of the study was developed in compliance with Demirel’s Analytical Curriculum Evaluation Model that constitutes a basis for curriculum evaluation. The model has two components. The first component includes the curriculum itself as well as the written materials relevant to the program. The second component is the opinions of beneficiaries of the curricula. In the first component, the existing and previous curricula on English (Foreign Language), Language and Expression - Turkish Language and Literature (Turkish Proficiency), Mathematics - Geometry, Physics – Chemistry - Biology (Science), History - Geography (Social Sciences) are compared and evaluated based on the Model. Curriculum evaluation criteria developed by Demirel consist of five components as context, objective, content, process, and evaluation. In conclusion, all of previous curricula were insufficient or partially sufficient and newly developed curricula were partially sufficient or sufficient according to curriculum evaluation criteria.

Key words: Curriculum evaluation, Demirel’s analytical curriculum evaluation model, general secondary education curricula, curriculum evaluation criteria.

Öz


Anahtar sözcükler: Program değerlendirme, Demirel’ın analitik program değerlendirme modeli, genel ortaöğretim programları, program değerlendirme ölçütleri.

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Introduction

According to Tanner & Tanner, curriculum is defined as “the planned guided learning experience and intended learning outcomes formulated through a systematic reconstruction of knowledge and experiences under the auspices of the school for the learner’s continuous and willful growth in academic, personal and social competence” (cited in Bharvad, 2010). Curriculum development is a process of designing, implementing, evaluating and reorganizing the curriculum in accordance with the data obtained from the curriculum evaluation (Erden, 1998; Gürkan, 2005).

Organizing and conducting of objectives/attainments, content, teaching-learning process and evaluation elements of curriculum according to the needs of society and individuals, requirements of the era, scientific and technological developments is a fundamental/basic condition of education. The quality of education increases unless/when are eliminated disruptions and shortcomings of curricula implemented/applied, unless/when curricula implemented are reorganized according to changes in society and in the field of science, in other words, unless/when curricula are developed (Tyler, 1969).

Curriculum evaluation is the decision-making process on the effectiveness of a curriculum (Demirel, 2006). The main purpose of the evaluation is to determine the degree of effectiveness of training activities and to prepare the ground for this effectiveness enhancing measures (Yıldırım, 1999). Eisner has determined the functions of curriculum evaluation, as diagnosing, reviewing, comparing, identifying educational needs and determining whether objectives have been achieved (Morrison, 1993). As long which the implemented curriculum evaluated, is checked whether fulfills the functions of educational institutions and is provided opportunity to curriculum development for bringing more qualified situation of education. Curriculum Development activities is sometimes carried out in the scope of educational reforms.

The development and change of the curriculum as an issue on both global and national agenda is quite remarkable. Although the drives and sources for educational change differ, the topic is never far from the centre of national and international debate and hence reviews. The literature is considerable on the so-called sources and drives for curriculum changes but much could be argued to consist of a drive towards higher educational standards and achievements. The Secondary Education Reform Project in Turkey started in 2006. The project targets were to restructure the general and vocational-technical secondary education system, improve the quality, develop the curricula, and equip the teacher education and educational environment in line with the renewed curricula (Mone, 2012).

The project realized curriculum development for the 9th, 10th, 11th and 12th grades of general and vocational-technical secondary education, the implementation of the developed curricula in schools, preparation and revision of textbooks, modules and other educational materials pertinent to relevant courses, the introduction of the curricula to principals and teachers in schools and organization of seminars. Work for evaluating the curricula prepared for general and vocational technical secondary education institutions was carried out in the 2011-2012 academic year and it aimed at providing information feedback to the system concerning the quality of the curricula (Mone, 2012).

This study covers the evaluation of curricula implemented in General Secondary Education Institutions. In this respect, we can consider the curriculum evaluation study as the last and supplementary link in the curriculum development process. Evaluation results provide curriculum development experts with information on continuing or reviewing the curricula, or shifting to a new stage (Demirel, 2011).
Different approaches are used for data collection and the interpretation of collected data in order to evaluate a curriculum. The Goal-based curriculum evaluation approach is dependent upon the attainment level of the desired objectives at the end of curriculum implementation. Tyler’s Evaluation Model, Metfessel-Michael Evaluation Model, Provus’s Discrepancy Evaluation Model and Scriven’s Goal-Free model are good examples for goal-based curriculum evaluation approach (Yüksel, 2010).

Management based curriculum evaluation approach is an approach advocating that the information obtained from the curriculum evaluation process can be used effectively by individuals who especially situated on the units of administrative like decision-makers, boards, managers. This approach focuses on the decisions of the curriculum managers. Stufflebeam’s Systems Approach-CIPP (Context -Input-Process-Product) and Alkin’s UCLA curriculum evaluation model are models of management based curriculum evaluation approach. (Yüksel, 2010).

Another curriculum evaluation approach is expert focused curriculum evaluation approach that based on the professional expertise of experts in the field of curriculum evaluation. In this approach, formal expert reviews (accreditation boards), informal expert reviews (thesis juries) panel reviews (agencies, major award juries) and individual assessments (consulting services) are situated. Eisner’s Educational Expertise and Criticism Model is a suitable model to this approach. (Yüksel, 2010).

Some of curriculum evaluation models give importance on document analysis and focus on curriculum plan. Some of them focus on students’ achievement and give importance to objectives and outcomes of the curriculum. Some of the curriculum evaluation studies yield data about student performances, whereas some other produce information about teaching strategies, some of them need to collect views of stakeholders (Osterlind, 1988) by means of qualitative and quantitative research design.

Demirel’s Analytical Curriculum Evaluation Model taken as a basis for this study focused on evaluating general secondary education curricula. DACEM is based on two components. The first component comprises the curriculum itself and the written materials relevant to the curriculum. The second component is the opinions of beneficiaries of the curricula. The model also contains data sources applicable to both components (Demirel, 2011). In this study, the curriculum evaluation is based on the first component of DACEM which is shown in Figure 1.
Figure 1. Demirel’s Analytical Curriculum Evaluation Model-DACEM (Demirel, 2012, p.181)
Purpose of the Research

The purpose of the research is to critically analyse the previous and newly developed curricula of general secondary education for the 9th, 10th, 11th and 12th grades.

Problem Statement

How is the difference observed in the evaluation and comparison process between the previous and newly developed general secondary education curricula?

Sub Problems

1. How is the difference between the newly developed curricula and the previous curricula when they were compared according to curriculum evaluation criteria?
   - Language (English-Turkish Literature - Language and Speech),
   - Mathematics - Geometry,
   - Natural Sciences (Physics, Chemistry and Biology),
   - Social Studies (History and Geography).

2. How is the difference between the newly developed curricula and the previous curricula with the respect to dimensions of curriculum mentioned below?
   - Context (theoretical framework),
   - Objective (behaviour / attainment),
   - Content,
   - Learning-teaching process,
   - Measurement and evaluation.

Method

Research Design

The first component of Demirel’s (2012) Analytical Curriculum Evaluation Model was taken as the basis for establishing the methodology of the present study in evaluating the general secondary education curricula. In accordance with the first component of model, the research was designed and carried out as a qualitative study using document analysis as shown in Figure 1. In tackling the first component of the analytical curriculum evaluation model, previous and current curricula were compared in terms of a) context b) objectives / attainments, c) content, d) learning-teaching process, and d) measurement and evaluation as shown in Figure 2.
**Document Analysis**

The ‘population’ for the data required for document analysis in the research consists of the previous and current curricula. In the study, all of the current and previous curricula pertinent to four general education areas – four pairs of curricula determined were accessed and a full count was done. All the curricula were obtained from Ministry of National Education (MoNE). Curricula on which the comparison was based were in the following areas: Language (English – Turkish Proficiency [Language and Expression – Turkish Language and Literature]), Mathematics – Geometry, Science (Physics – Chemistry – Biology), Social Sciences (History – Geography).

**Data Collection**

The “Curriculum Evaluation Criteria” developed by Demirel were used to evaluate and compare the curricula. They were used in accordance with the “Curriculum Analysis” component of Demirel’s Analytical Evaluation Model (2012). The Curriculum Evaluation Criteria cover 5 components such as Context, Objectives, Content, Learning–Teaching Process, and Measurement and Evaluation. There are 15 criteria in total, 3 criteria from each component. The “Curriculum Evaluation Criteria” are shown in Table 1.
Table 1.

*Curriculum Evaluation Criteria (Demirel, 2011, p.353)*

<table>
<thead>
<tr>
<th>CURRICULUM EVALUATION CRITERIA</th>
<th>Previous</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please put the mark after evaluated the curriculum components (−, ⇑, +)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cx1: Is there a specific philosophy upon which the curriculum is based?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cx2: Was a specific learning theory (or theories) adopted in the curriculum?</td>
<td></td>
<td></td>
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<tr>
<td>Cx3: Was a curriculum operating manual prepared?</td>
<td></td>
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<tr>
<td>Objective</td>
<td></td>
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<tr>
<td>O1: Were the objectives/attainments/competencies expressed in accordance with hierarchical classification principles according to the specifications of the subject area?</td>
<td></td>
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<tr>
<td>O2: Were objectives/attainments/competencies suitable for the student level? Were student levels of readiness taken into account?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>O3: Were activity examples in compliance with objectives/attainments/competencies presented accurately?</td>
<td></td>
<td></td>
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<tr>
<td>Content</td>
<td></td>
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</tr>
<tr>
<td>Cn1: Was the content established in accordance with objectives/attainments/competencies? Was the objective/attainment/competency and content relationship established? Was a Table of Specifications provided?</td>
<td></td>
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</tr>
<tr>
<td>Cn2: Was content design made in accordance with the subject area (linear, cyclical, core and the like)?</td>
<td></td>
<td></td>
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<tr>
<td>Cn3: Were the interest, cognitive, affective and psychomotor development characteristics of students taken into consideration for content selection? Was it relevant for students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td></td>
<td></td>
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<tr>
<td>P1: Were the teaching strategies, method and techniques suitable for the objectives/attainments/competencies, and was their involvement specified in the work?</td>
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<tr>
<td>P2: Were the examples given in relation to the teaching of the course student-centered, and were these consistent with the curriculum objectives/attainments/competencies?</td>
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</tr>
<tr>
<td>P3: Did the teaching materials conform to the objectives/attainments/competencies, and were these easily accessible for the region in which the curricula will be implemented?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1: Was how the objectives/behaviors/attainments/competencies will be tested demonstrated with examples?</td>
<td></td>
<td></td>
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<tr>
<td>E2: Were the examples given for testing situations qualified to measure the behavior/attainments/competencies of relevant subjects? Do they coincide with the hierarchical classification level of objectives?</td>
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<tr>
<td>E3: Were alternative evaluation techniques used when evaluating the objectives/attainments/competencies?</td>
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</tr>
</tbody>
</table>

*Note: The marks used in the evaluation have the following meanings:

(+) The relevant criteria is fully covered in the curriculum

(𫖯) The relevant criteria is partially covered in the curriculum

(−) The relevant criteria is not included in the curriculum
Data Analysis

Descriptive analysis was used in analyzing and comparing the existing and previous curricula. Two researchers evaluated curricula by using the curriculum evaluation criteria. The content analysis was carried out in two different stages. The content analysis in the first stage was fulfilled by two experts independently. Then, results of each analysis were reviewed by the research team at the second stage and the consensus was provided among the experts’ assessments. This process was applied to each previous and current curriculum developed in this project. The research team interpreted the research findings concerning the previous and current curricula according to the criteria in Table 1.

Findings

The Findings Related to the First Sub-Problem

In this section, how the differences are observed when the newly developed Language (English-Turkish Literature - Language and Speech), Mathematics - Geometry, Natural Sciences (Physics and Chemistry - Biology) Social Studies (History and Geography) curricula were compared with the previous curricula.

Language (English - Turkish Literature - Language and Speech)

In terms of context, the previous Language curricula were insufficient and new curricula were partially sufficient. In terms of objective-attainment, the previous English curriculum was partially sufficient; the previous Turkish Literature - Language and Speech curricula were insufficient and new Language curriculum was partially sufficient. In terms of content, the previous and new Language curriculum were partially sufficient. In terms of learning-teaching process and measurement-evaluation criteria, the previous English curriculum was partially sufficient and new curriculum was sufficient; the previous Turkish Literature - Language and Speech curricula were insufficient and new curricula were sufficient.

Mathematics – Geometry

In terms of context, the previous Mathematics – Geometry curricula were insufficient and new curricula were partially sufficient. In terms of objective-attainment, the previous and new curricula were partially sufficient. In terms of content, the previous Mathematics curriculum was partially sufficient and new curriculum was insufficient; the previous Geometry curriculum was partially sufficient and new curriculum was sufficient. In terms of learning-teaching process, the previous Mathematics curriculum was insufficient and new curriculum was partially sufficient; the previous Geometry curriculum was insufficient and new curriculum was sufficient. In terms of measurement-evaluation, the previous Mathematics curriculum was insufficient and new curriculum was partially sufficient; the previous Geometry curriculum was insufficient and new curriculum was sufficient.

Natural Sciences (Physics, Chemistry and Biology)

In terms of context, the previous Physics curriculum was insufficient and new curriculum was partially sufficient; the previous Chemistry curriculum was insufficient and new curriculum was sufficient; the previous and new Biology curriculum was sufficient. In terms of objective-attainment, the previous and new Physics curricula were insufficient; the previous Chemistry curriculum was insufficient and new curriculum was partially sufficient; the previous Biology curriculum was sufficient and new curriculum was partially sufficient. In terms of content, the previous Physics curriculum was insufficient and new curriculum was partially sufficient; the previous and new Chemistry curricula were sufficient; the previous Biology curriculum was sufficient and new curriculum was partially sufficient. In terms of learning-teaching process, the previous and new Physics curriculum were partially sufficient; the previous Chemistry curriculum was partially sufficient and new curriculum was sufficient; the
previous Biology curriculum was sufficient and new curriculum was partially sufficient. In terms of measurement-evaluation, the previous and new Physics curricula were insufficient; the previous Chemistry curriculum was insufficient and new curriculum was sufficient; the previous and new Biology curriculum was sufficient.

**Social Studies (History and Geography)**

In terms of context, the previous and new History and Geography curricula were insufficient. In terms of objective-attainment, the previous and new History curricula were partially sufficient; the previous Geography curriculum was insufficient and new curriculum was partially sufficient. In terms of the content, the previous History curriculum was sufficient and new curriculum was insufficient; the previous and new Geography curriculum was partially sufficient. In terms of the learning-teaching process, the previous and new History curricula were partially sufficient; the previous Geography curriculum was insufficient and new curriculum was sufficient. In terms of measurement-evaluation, the previous History and Geography curricula were insufficient and new curricula were sufficient.

**The Findings Related to the Second Sub-Problem**

In this section, how the differences are observed when newly developed secondary education curricula were compared with the previous curricula according to the context (theoretical framework), objective-attainment, content, learning-teaching process and measurement and evaluation component.

**Context (Theoretical Framework)**

In terms of context, the previous language curricula (Turkish Literature, Language and Expression and English) were insufficient and new curricula were partially sufficient; previous social sciences curricula (History and Geography) were insufficient and new curricula were partially sufficient; previous natural sciences (Physics, Chemistry and Biology) and Mathematics (Math and Geometry) curricula were insufficient, and new curricula were partially sufficient.

**Objective–Attainment**

In terms of the objective-attainment, the previous language curricula were insufficient, and new curricula were partially sufficient, previous social sciences curricula were insufficient and the new curricula were partially sufficient, and both previous and new natural sciences and maths curricula were partially sufficient.

**Content**

In terms of the content, the previous and new language curricula were partially sufficient; previous social sciences curricula were insufficient but new curricula were partially sufficient; previous natural sciences and maths curricula were partially sufficient and new curricula were sufficient.

**Learning–Teaching Process**

In terms of the learning-teaching process, the previous curricula of the language group were insufficient and new curricula were sufficient; social sciences previous curricula were partially sufficient and new curricula were sufficient; the natural sciences and mathematics group’s previous curricula were insufficient but new curricula were sufficient.

**Measurement and Evaluation**

In terms of measurement and evaluation, the previous curricula of language group were insufficient and new curricula were sufficient; previous curricula of social sciences were partially sufficient and new curricula were sufficient; and previous curricula of natural sciences and mathematics group were insufficient and new curricula were sufficient.
Discussion

In conclusion, all of previous curricula were insufficient or partially sufficient and newly developed curricula were partially sufficient or sufficient according to curriculum evaluation criteria. The current curricula should include information about the philosophy of the curriculum and learning-teaching theories in the written texts of the curricula. This information should be included under the heading “Structure of the Curriculum”. Alternatively, it could be explained under the headings of “Philosophy of the Curriculum” and “Learning and Teaching Theories” in the initial parts. It is considered as important to include in the teacher’s manual, the summary information related to the philosophy of curriculum and the learning-teaching theories implied by the curriculum. No evidence was found in the study to the effect that the attainments envisaged in the current curricula are designed based on a certain systematic model or taxonomy. For this reason, curriculum attainments should be reviewed and rewritten taking into account their measurability and development characteristics according to a certain model to be defined.

The curricula should be prepared in order to ensure that the objectives-attainments, content, learning and teaching process, measurement and evaluation processes are integral and consistent with each other. The units, subjects and subject sub-headings should be designed and written in a clear and detailed manner in the content of the curriculum prepared based on the attainments desired. The curricula should indicate the content and syllabus design approaches that are taken as a basis (modular, linear, spiral, core etc.). Accordingly, the curricula contents should be reviewed taking into account these content design approaches, the findings obtained from implementation, and the results from the student assessments. The curricula learning-teaching process should include qualitative and quantitative good examples and practices suitable with the attainments. It was observed that student-centered learning strategies, methods and techniques were recommended in the curricula. However, according to the results of the other research studies that mentioned below, it is stated that lecture and question-answer methods and thus a teacher-centered implementation is dominant in schools. Whereas, in this study, alternative measurement and evaluation methods integrated into the curricula are considered as a point of strength. Also, it should be ensured that people who are experts in the fields of curriculum development and measurement-evaluation who hold doctoral degrees related to this area are employed on a full-time basis, and those who are experts in the fields of education philosophy, learning psychology and information communication technologies are employed on a part-time basis.

In this research, the assessment of beneficiaries which is the second component of curriculum evaluation model was carried out by determining the opinions of teachers, administrators, students, parents and graduate students relating to the newly developed secondary education curricula and curriculum implementation. According to the findings, stakeholders have positive opinions about the context, attainments, content, teaching-learning process and assessment dimensions of the new general secondary curriculum. However, teachers have pointed out that curriculum activities are not very satisfactory. In addition, although most of the teachers declare that they use student-centered strategies, methods and techniques in the implementation phase, but according to student interview results, teacher-centered practices are widely used in classes (Mone, 2012).

For this reason, it will be beneficial to provide the teachers with training on learner-centered teaching methodology and to prepare micro-teaching methods and examples on this issue; also implementing information communication technologies embedded learning. On the other hand, most of the teachers are not aware of the alternative evaluation techniques and they do not use in practice. It was observed that these methods were not sufficiently included in school and classroom practices and assessment methods. Accordingly, teachers should be offered to take in-service training courses on this issue and numerous example materials related to implementation should be prepared.
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Geniş Özet

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