

Content Analysis of Curriculum Evaluation Models Studies During: 2000-2020

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Abstract

Curriculum evaluation is the process of assessing the effectiveness of a curriculum in achieving its intended goals and objectives. It involves collecting and analyzing data on various aspects of the curriculum, such as its content, delivery, and outcomes, and using this information to make decisions about how to improve the curriculum. The purpose of the evaluation may also vary, such as to determine if the curriculum is meeting the needs of students, to assess the effectiveness of teaching and learning strategies, or to ensure that the curriculum meets accreditation standards. This study aimed to analyze curriculum evaluation studies conducted between the years 2000 and 2020 and determine the study trends in terms of methodology, publishing years, countries, sample type, evaluation model type, and evaluated curriculum. The study used a content analysis method; 100 articles were analyzed. Besides, most of the studies focused on evaluating undergraduate students, which was the most commonly used sample type. It also indicated that most studies were done as mixed research, with high school curriculum, English, and science being the most heavily evaluated. Overall, curriculum evaluation is an important process that can help educators ensure that their curriculum is relevant, effective, and meets the needs of their students. It can also help to improve teaching and learning outcomes and ensure that educational institutions are meeting standards

Keywords: Curriculum evaluation, evaluation models, content analysis, teaching and learning strategies

Introduction

Education is one of the most powerful tools used to form society, educate individuals, discover their talents, and build their abilities. The communities that raise individuals to follow their targets use education as a tool, therefore, the curriculum should be developed based on scientific and systematic understanding (Yetkiner et al., 2019).

The correct understanding of the learning environment leads to the correct adoption of the correct curriculum design. An effective learning environment is necessary for implementing the learning process, and there are many items that form a quality learning environment (Jawabreh et al., 2020). Therefore, the evaluation could provide stakeholders with regular feedback to help them develop in the education process and also provide useful information to schools to construct the finest quality instructional teams. Besides, the evaluation could focus on everybody in the educational system, from teachers to supervisors, with the goal of keeping students on the correct path until graduation, which would help them be more successful in college and their career (Qingyu et al., 2016).

In recent years, educational evaluation has been applied in many countries, but it was first implemented in the USA and then spread widely throughout the world. An evaluation model is an important tool that could always represent the important features of a good education and help teachers improve their teaching methods, which use all the appropriate evaluation techniques to supply information (Darling et al., 2012).

Educational evaluation is defined as a value of expected effect judgment for the education process and includes an enormous array of activities like student and teacher assessment, measurement, testing, curriculum evaluation, program evaluation, and school principal evaluation. Evaluation is regarded as the methodical endeavour to collect information to make judgments or decisions (Vo, 2018).

Curriculum evaluation includes a perception of how to develop educational programs and focuses on instructional activities in the teaching and learning process with the goal of defining the values of particular outcomes involving the learning objectives or experiences that seek to make decisions for the curriculum; thus, the evaluation of the curriculum is a systematic and planned process (Klenowski, 2010).

Curriculum evaluation refers to the sets of activities involved in collecting information about the operation and effects of policies, programs, curricula, courses, educational software, and other instructional materials (Gredler, 1996).

The curriculum is not static; it is constantly changing, therefore, making a change to one component of the curriculum affects the whole system as each component is related to the others. In this way, evaluation in the education system enables reform attempts and the development of the curriculum by finding out undesirable outcomes and their sources (Kurt and Erdogan, 2015).

Literature Review

Fitzpatrick, Worthen, and Sanders (2010) said that the program evaluation models offer different evaluation processes based on a scientific basis, values, experiences, world views, and philosophical perspectives. Furthermore, an evaluation model helps set up the criteria based on the purpose of the evaluation, the characteristics of the evaluand, and the characteristics of the program in question (Hansen, 2005).

Yüksel and Sağlam (2012) demonstrate that, within the curriculum evaluation process, the behaviors of those responsible for assessment and evaluation at the initial evaluation level reflect a great deal of variation according to the educational theories and philosophies to which they attach importance. Regarding the basic components that are to be taken as the fundamental units of evaluation, they stated that five different forms of evaluation may be observed: the objective or target-based, the administration-based, the expert-based, the consumer-based, and the participant-based models.

Brady and Kennedy (2010) said that the curriculum evaluation is needed for decisionmaking around curriculum and that it is difficult to overemphasize the inter-subjective nature of problems associated with processes and products, outcomes, and the issue of value judgments, all of which are of critical interest in curriculum decision making.

Patto (2010) explained that the evaluation is exploring the many benefits and feasibility of a process and its results through formative and summative evaluation.

Royse et al. (2010) reveal that program evaluation is a process that follows up on an activity with a particular technique, method, or model according to the needs and expectations of the organization or institution

Significance of the Study

There are several reasons why curriculum evaluation is important. First, it helps educators identify areas where the curriculum is working well and areas where it needs improvement. This information can then be used to make changes to the curriculum, such as modifying content or delivery methods, to better meet the needs of students.

Second, curriculum evaluation helps to ensure that the curriculum is meeting accreditation standards and complying with other regulatory requirements. This is important for ensuring that students receive a high-quality education that meets recognized standards and that the institution is able to maintain its reputation and accreditation status.

Finally, curriculum evaluation helps to ensure that the curriculum is relevant and upto-date in light of changing societal needs, technological advancements, and other factors. This is important for preparing students for success in their future careers and for ensuring that the institution remains competitive in an ever-changing educational landscape.

Overall, the purpose of curriculum evaluation is to ensure that the curriculum is effective, relevant, and meets the needs of its stakeholders. It is an important process that helps to drive continuous improvement in educational programs and outcomes.

Problem Statement

Changes in the education system, recent education trends, and social and technological developments make it compulsory to implement several changes and revisions to the curriculum (Jawabreh & Gündüz, 2021).

Every individual in this world must be able to adapt to this explosion of knowledge that is taking place to advance in his community, nation, and state, since the current era is the era of science and rapid changes that exceed human perceptions (Jawabreh et al., 2019). Therefore, there is a need for evaluation studies as well as curriculum development studies.

As the evaluation aims to detect strengths and weaknesses in the instructional process and to suggest constructive feedback about how things might be improved, and the objectives of education can't be realized only through a valid, reliable curriculum for developing and meeting cognitive and scientific needs. Therefore, in this study, content analysis will be used through articles that used curriculum evaluation models from 2000 to 2020.

The aim of the Study

Evaluation is at the center of all improvements; everywhere policymakers and researchers emphasize the need for evaluation that helps in the monitoring of quality and its development, including administrative and pedagogical improvements (De Grauwe & Naidoo, 2004). Therefore, this study aims to analyze articles related to curriculum evaluation models thematically by content analysis method and determine the study trends in terms of methodology, publishing years, countries, sample types, evaluation model types, and evaluated curriculum between the years 2000 and 2020. With these aims in mind, the following questions guided the discussion:

1. How have the articles related to the curriculum evaluation models been distributed according to the year of publication?

- 2. How have the articles related to the curriculum evaluation models been distributed according to the countries?
- 3. How have the articles related to the curriculum evaluation models been distributed according to the evaluation model type?
- 4. Which methodologies were used in the articles related to the curriculum evaluation models?
- 5. How have the articles related to the curriculum evaluation models been distributed according to the sample type?
- 6. How have the articles related to the curriculum evaluation models been distributed according to the evaluated curriculum?

Methodology

Research Design

This study used the content analysis method, which is a set of procedures for examining trends and patterns in documents for collecting and organizing information in a standardized format (Jawabreh et al., 2022). It is considered a reference source because it includes descriptions and explanations related to the articles related to curriculum evaluation models (Jawabreh & Bicen, 2020).

Content analysis refers to analyzing articles that contain similar themes, regardless of the methodology used, publishing years, countries, evaluation model type, sample type, or evaluated curriculum between the years 2000 and 2020.

The Criteria for Selecting Articles

The main criteria used to identify which articles were analyzed were: articles that discussed the curriculum evaluation models; only articles performed from 2000 to 2020; and the keywords curriculum evaluation and evaluation models. To find the relevant articles, some articles were excluded from the scope of this study. The articles were examined in terms of methodology, publishing years, countries, evaluation model type, sample type, evaluated curriculum, problem statement, and conclusion.

The Sample

The sample of the study consists of published articles that discuss the curriculum evaluation models performed between 2000 and 2020, and 100 articles were found to be appropriate for the determined criteria.

The Data collection and analysis

The data obtained that related to the study were collected, analyzed, and interpreted using descriptive statistical methods in an organized way. The data was calculated by percentages depending on the frequencies.

The tables were prepared to present the themes concerning each research question; six tables were created on six topics, and these topics were according to the methodology, publishing years, countries, evaluation model type, sample type, and evaluated curriculum.

Findings

The data presents the results and discussions according to the study questions. There were 100 articles about the curriculum evaluation models from 2000 to 2020. The first study question was answered by showing the frequency and percentage of the studies related to curriculum evaluation models according to publishing years in Table 1.

Table 1.

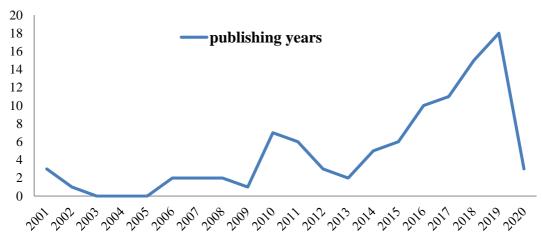
Distribution According to Publishing Years

Publishing	f	%	Publishing	f	%
years			years		
2001	1	1%	2011	6	6%
2002	1	1%	2012	3	3%
2003	0	0%	2013	2	2%
2004	1	1%	2014	5	5%
2005	1	1%	2015	6	6%
2006	2	2%	2016	10	10%
2007	2	2%	2017	11	11%
2008	2	2%	2018	18	18%
2009	1	1%	2019	18	18%
2010	7	7%	2020	3	3%
Total	100 Percent		age = 100%	,)	

Concerning analyzing the articles according to the year of publication, it is obvious that 18% of them are in 2019, 18% of them are in 2018, 11% are in 2017, 10% are in 2016, and 6% are in 2015 as well as 2011, and 7% are in 2010. For the rest of the years, the percentage ranges from 1% to 3%. The highest number of publications were in 2019 and 2018. The number of publications appears to have decreased in 2020 due to the coronavirus, which spread during this period. As can be seen in figure 1.

Figure 1.

Distribution According to Publishing Years



The second study question was answered by showing the frequency and percentage of the studies related to curriculum evaluation models according to countries in Table 2.

Distribution According to Countries					
Country	f	%	Country	f	%
USA	23	23%	Germany	1	1%
UK	3	3%	Ethiopia	1	1%
Turkey	37	37%	Georgia	1	1%
Iran	7	7%	Brazil	1	1%
China	4	4%	Malaysia	5	5%
Australia	5	5%	Islamabad	3	3%
Saudi Arabia	3	3%	Indonesia	3	3%
Colombia	3	3%	Total	100	100%

Table 2.Distribution According to Countries

Concerning analyzing the articles according to the countries, the articles revealed the descending order of countries from the frequency in a Table 2: Turkey, USA, and Iran, among other countries, it is obvious that 37% of them are in Turkey, 23% are in the USA, 7% are in Iran, 5% are in Australia, and the same percentage is also in Malaysia. The highest number of publications was in Turkey. For the rest of the countries, the percentage ranges from 1% to 3%.

The third study question was answered by showing the frequency and percentage of the studies related to curriculum evaluation models according to the evaluation model type in Table 3.

Table 3.

Distribution	According	to Eva	luation	Model	Type
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Evaluation Model Type	f	%
CIPP Evaluation Model	53	53%
Tyler's Evaluation Model	10	10%
Robert Stake's Evaluation Model	9	9%
Kirkpatrick's Evaluation Model	9	9%
Logic Evaluation Model	7	7%
Goal Free Evaluation Model	4	4%
Demirel's Evaluation Model	2	2%
Metfessel Michael Evaluation Model	1	1%
Complex Network Evaluation Model	1	1%
Randomized Evaluation Model	1	1%
Element Based Evaluation Model	2	2%
Positive Deviance Evaluation Model	1	1%
Total	100	100%

When studies were analyzed in terms of curriculum evaluation models from Table 3, CIPP Evaluation Model was the most implemented model with 53%, followed by Tyler's Evaluation Model with 10%, Robert Stake's Evaluation Model with 9%, Kirkpatrick's Evaluation Model with 9%, the Logic Evaluation Model with 7%, the Goal Free Evaluation Model with 4%, Demirel's Evaluation Model with 2%, and the Element Based Evaluation Model with 2%. The highest number of evaluation models used was CIPP.

The fourth study question was answered by showing the frequency of the studies related to curriculum evaluation models according to the methodology in Table 4.

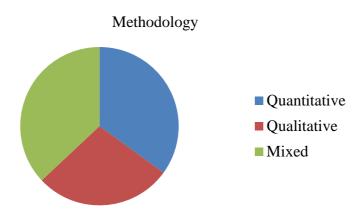
Methodology	f	%
Quantitative	35	35%
Qualitative	28	28%
Mixed	37	37%
Total	100	100%

Table 4.Distribution According to the Methodology

As can be seen in Table 4, the research methodologies followed in the articles that related to curriculum evaluation models demonstrate that the majority of them were the mixed approach (37%), the quantitative approach (35%), and the qualitative approach (28%). As can be seen in figure 2.

Figure 2.

Distribution According to the Methodology



The fifth study question was answered by showing the frequency of the studies related to curriculum evaluation models according to sample types in Table 5.

Table 5.

Distribution according to samples type

Sample type	f	%
Undergraduate Students	26	26%
Secondary Teachers	12	12%
Preschool Teachers	7	7%
Preschool Students	6	6%
Academic Lecturers	6	6%
Curriculum Specialists	6	6%
Primary Students	5	5%
Secondary Students	2	2%
Graduates Students	5	5%
Postgraduate students	2	2%
Coursebook writer	6	6%
Mixed (students, teachers, parents)	17	17%
Total	100	100%

As seen in Table 5, the samples type followed in the articles that related to curriculum evaluation models demonstrates that the majority of them were undergraduate students with 26%, secondary teachers with 12%, preschool teachers with 7%, preschool students with 6%, academic lecturers with 6%, curriculum specialists with 6%, coursebook writers with 6%, and graduates' students with 5%.

On the other hand, teachers, parents, administrators, students, and experts were determined to be selected as a mixed group with 17%.

The sixth study question was answered by showing the frequency and percentage of the studies related to curriculum evaluation models according to the evaluated curriculum in Table 6.

Table 6.

Evaluated Curriculum	f	%
Science Curriculum	14	14%
English Curriculum	13	13%
High School Curriculum	17	17%
Computer Systems Curriculum	7	7%
Preschool Curriculum	8	8%
Mathematics Curriculum	8	8%
Engineering Curriculum	4	4%
Medical Curriculum	10	10%
Social Studies Curriculum	2	2%
Islamic Curriculum	1	1%
Nursing Curriculum	8	8%
Teachers Training Programs	6	6%
Training Programs	2	2%
Total	100	100%

Distribution According to Evaluated Curriculum

As shown in Table 6, most of the studies focused on the evaluation of the high school curriculum with 17%, Due to the recent changes in philosophies of education, new studies emerging in curriculum development, and new approaches observed in learning and teaching, all of which have brought along the requirement for an evaluation of the existing curricula, the science curriculum with 14% because the problem in several experiments included in it is not sufficient and the physical condition of the school also is insufficient to implement these experiments, the English curriculum with 13% because the problem is that the limited English language skills among learners threaten their ability to interact with the international environment, the interactive activities were not Another set of curricula widely evaluated is the medical curriculum, with 10%; the nursing curriculum, with 8%; the mathematics curriculum, with 8%; the preschool curriculum, also with 8%; the computer systems curriculum, with 7%; the teacher training program, with 6%; and the engineering curriculum, with 4%.

Discussion Conclusion and Recommendation

This study intended to analyze curriculum evaluation model articles conducted between the years 2000 and 2020, and 100 articles were accessed.

When the distribution of articles was analyzed in terms of publishing year, it was seen that 81 of these studies were conducted after 2010, which indicates that curriculum evaluation is important, and there was an increase in the number of articles that related to curriculum evaluation models. It was also seen that studies were mostly carried out in 2018 and 2019. And fewer studies were published from 2000 to 2009. This finding is in line with the results of the study conducted by Kurt and Erdogan (2015). Most of the research was conducted with the samples chosen in Turkey, the USA, and Iran.

Curriculum evaluation models used in studies differ in terms of their adopted approach. When studies were analyzed in terms of the curriculum evaluation model, it was determined that the CIPP evaluation model was used in the majority of the studies. This finding has some similarities with the research conducted by Gokmenoglu (2014); among the program evaluation models, the CIPP model is commonly used, as is Ozudogru (2018). Therefore, in curriculum evaluation research, a curriculum evaluation model needs to be utilized in order for a systematic, purposeful evaluation to be realized.

It was also found that very few articles were conducted using only qualitative research methods, and most of the studies were done using mixed methods. While this finding is similar to Yetkiner et al. (2014) study results, as well as Ozudogru's (2018), which showed that studies were carried out as mixed research at most and as qualitative research at least, it is different from Ozan and Kose's (2014) as well as Ulutas and Ubuz's (2008), which indicated quantitative research was the most preferred. The reason that quantitative research methods are mostly preferred is that they provide easier and more accessible results in comparison with qualitative research.

Besides, most of the studies were done on undergraduate students as the sample type, as well as on a mixed group (students, teachers, and parents together) and on secondary teachers. This finding is different from the results of the studies conducted by Gomleksiz and Bozpolat's (2013) and Kurt and Erdogan's (2015). And is similar to Yetkiner et al. (2014) study results.

Furthermore, it was found that most of the studies focused on the evaluation of high school curriculum, including science and English curriculum, which is different from Gokmenoglu's (2014) finding that studies mostly focused on the evaluation of elementary school programs.

The curriculum ought to be tailored to fulfill the demands and aspirations of educational establishments, encompassing students, educators, and the broader community (Jawabreh et al., 2023), and the modern perspective on curricula is based on making the student the axis of educational science. Curricula fundamentally aim to consider the student, his abilities, preparedness, and inclinations, and to tailor educational material accordingly (Othman and Jawabreh, 2023).

In recent study, it was also found that postgraduate programs and training programs were evaluated in very few studies. Depending on this, it can be suggested that evaluation studies regarding postgraduate programs and training programs be increased.

Recommendation

The study related to curriculum evaluation could involve a comparison between the performance of students who are taught using the new curriculum and those who are taught using the old curriculum. The study could also explore the perceptions of teachers, students, and other stakeholders regarding the new curriculum, including its strengths and weaknesses.

Another possible study could focus on the alignment between the curriculum and the assessments used to evaluate student learning. This could involve an analysis of the curriculum and the assessments to determine if they are aligned with each other in terms of content, skills, and learning objectives. The study could also investigate the validity and reliability of the assessments used to evaluate student learning as well as their impact on student motivation and engagement.

A third recommendation could be to examine the implementation of a curriculum and its impact on student learning. This could involve an analysis of the fidelity of implementation as well as the challenges and barriers that teachers face when implementing the curriculum. The study could also explore the impact of teacher professional development and support on the implementation of the curriculum as well as the outcomes achieved by students.

Overall, there are many different types of studies that could be conducted related to curriculum evaluation, and the specific focus of the study will depend on the research questions and goals of the researchers.

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