

Criticism of Curriculum Quality Assessment Models: A Narrative Review

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Abstract

Context: Curricula are the heart of educational centers, and their continuous evaluation and revision are among the necessities of a sustainable and responsive program to respond to the needs of the beneficiaries who use them. Evaluation models are not comprehensive and are associated with shortcomings. The current review has investigated curriculum evaluation models using a narrative approach. In this research, curricula definitions, curriculum elements and components, how to evaluate their usefulness and quality, the necessity of revising and changing if needed, and finally, their criticisms were discussed. Curriculum evaluation models have strengths and weaknesses; however, curriculum evaluation is a necessity for every country due to its importance in improving the level of education and training of specialized human resources. It is suggested to design a new model suitable for the environmental and educational conditions of each country using the existing models.

Keywords: Criticism; Evaluation; Quality; Curriculum; Revision; Narrative Review

1. Context

The curriculum is derived from the word curricula and means the way to be followed. So far, various definitions have been presented for curriculum, one of which includes “designing to create appropriate learning opportunities for people who want to be educated” (1). In this regard, it is required to learn the skills needed for professional life and apply the content. The curriculum is not only responsible for transferring the content but must also pay attention to applications (2). In the current era, a curriculum should encourage teachers, learners, and stakeholders to do research in their field of interest, participate in discussion groups, communicate with experts, establish a link between external and internal learning environments in the classroom, and use the feedback provided to them (3). Employment in the labor market requires a workforce to have multiple skills, a fact that is not given much attention in the existing curricula (4). Therefore, one of the most important challenges of higher education in many countries of the world is to evaluate, modify, and improve curricula in such a way that they can train graduates who are responsive to the needs

of society and its institutions in parallel with benefiting from new scientific developments and technologies (5).

Based on this, it is necessary to periodically review curricula, which are considered the heart of academic centers (6), after being repeatedly implemented over time; otherwise, a phenomenon known as the deterioration of the curriculum will occur (5). A suitable educational platform is needed to develop and improve relatively new disciplines, and awareness of the educational needs in a specific field will help policymakers make relevant decisions to provide better services (7, 8). In the following, curriculum definitions, curriculum quality evaluation, curriculum elements, components and patterns, curriculum modification requirements, and curriculum revision are discussed in detail.

2. Main Text

2.1. Curriculum Definitions

Curriculum is fit with the purpose or intent (9-11) that



educational institutions depict, and the quality of these educational programs is determined according to the degree to which these goals and missions are achieved (6). Curricula are considered to be one of the most important elements and influential factors in determining the success and failure of higher education systems and are undoubtedly a reflection of universities' responsiveness to changing needs (12). The concept of curriculum has been expanded in recent years in such a way that it includes all the learning activities of learners, all kinds of educational resources and tools, strategies to facilitate the learning process, and program implementation circumstances (13).

The curriculum is actually a map in which learning opportunities are provided to achieve general and specific educational goals for students. In fact, the curriculum is a series of educational events designed to acquire prespecified educational outcomes for one or more students (14, 15). The common point of all these definitions is their conceptual terms, such as learning opportunity, educational events, and learning process. If we consider the mentioned terms as learning opportunity, then the meaning of learning opportunity falls within the planned and controlled relationship between students, professors, educational materials, equipment, and the environment where learning is expected to take place. Based on this, the curriculum consists of the prediction and preparation of a set of learning opportunities for a specific population in order to achieve educational goals and objectives, the four main elements of which are: (1) Setting objectives, (2) planning, (3) implementation, and (4) evaluation (16, 17).

2.2. Desirability of Curriculum

The desirability of the curriculum means examining the status of the elements and components of the program in the direction of prespecified goals. The level of desirability is determined based on the average. In this method, there are two scales in the format of five- and three-point Likert, both of which have three qualitative levels: Favorable, average, and unfavorable (18, 19).

2.3. Quality of Curricula

It aims to improve the quality of education and provide specialized research services to meet the needs of learners and beneficiaries (20). Evaluation and revision of curricula in each field require a needs assessment process in that field, and one of the ways to assess the needs is to examine the opinions of beneficiaries, such as graduates and students in the field (21). Curricula failing to fulfill the needs of the labor market cause the entrance of academically and practically incompetent learners to the desired field (22). Despite the importance of quality evaluation plans in promoting a country's higher education system, these plans lack a specific and coherent framework in universities, hindering the educational

and research promotion of universities (23). The purpose of the evaluation is to judge past efforts based on achieving a purposeful activity, help make decisions about the future developments of universities, and improve the conditions of education, research, and service provision by the higher education system (24).

The purpose of the internal quality evaluation is to examine the desirability and condition of the elements and components of an educational system in order to achieve certain goals (25). This type of evaluation shows the authorities of the system how far they are from the desired condition and what plans are required to achieve goals and improve quality (26). Considering that students are considered primary customers in universities, the satisfaction of this group can indicate the desirability of the educational elements of the system (27). Improving the quality of education is the highest goal of educational systems (28). Sanyal and Martin defined the quality of educational programs as the balance between the goals of the higher education system and the needs of individuals and society (29). If quality assessment is ignored with regard to curricula, curriculum deterioration is inevitable, a phenomenon that is referred to as the garbage curriculum, which can have one to two of the following specifications: (1) Outdated, and/or (2) non-applicable in the social context (5). Also, in addition to creating and improving quality, it is necessary to maintain it as well. In educational systems, the expectations of stakeholders should be emphasized (30).

The comprehensive definition of curriculum quality refers to the conformity and suitability of its features with educational standards (15). In order to determine the quality of an academic system, the status and desirability of its educational elements and components and their compatibility with prespecified goals are examined. In universities, learners are primary customers, and their satisfaction indicates the desirability of the elements of the educational system and the quality of the curriculum (31). If the quality of educational programs is low and the path to improve this quality is bumpy, the economic, social, and cultural development of countries will face many problems (32, 33). If universities want to perform optimally, one inevitable path is to evaluate the quality of their curricula and educational programs (34). Among the main factors lowering the quality of the skills of university graduates is their inadequate knowledge (35). The lack of continuous revising of curricula is another main reason for the failure of educational systems, highlighting the importance of compliance with certain quality assessment standards (36). One of the most important higher education quality measurement strategies is to evaluate educational programs, which will reveal how these programs should be modified, changed, or completed (37, 38).

2.4. Curriculum Modification

In universities, curriculum changes should be aimed at

improving their content and objectives. One of the concepts integrated with curriculum changes includes modification and revision. The concept of reform refers to specific but more comprehensive and fundamental changes in curricula. Reforms include revising the structure of the education system, curriculum, and other similar structures. Decisions related to curriculum revisions should conform to educational objectives, teaching materials, evaluation purposes, etc. (39). From Stark and Latoka's points of view, changing the curriculum helps the higher education system better respond to the needs of society (40).

The changing of university curricula is a continuous, necessary, and unavoidable phenomenon in order for curricula to adapt to the transforming needs and developments of societies (41). Therefore, changes in curricula seek to compensate for the deficiencies and inadequacies of their previous versions. Despite the importance of curricula in higher education institutions, the necessary efforts to review, evaluate, modify, and change them have not been included in the agenda (42, 43).

2.5. Curriculum Revision

Success in curriculum revision requires the full support of managers, who should also encourage faculty members to participate in the revision process (44). Hull (45, 46) has proposed six strategies, including (1) commitment, (2) compatibility, (3) communication, (4) participation, (5) consensus, and (6) credibility, to attract professors' participation in the revision process. Cuellar (47) also suggested seven items for the successful implementation of curriculum revisions. These seven items include: (1) Teachers participating actively in implementing curriculum revisions; (2) detailed planning for reviewing expectations at the beginning of the program; (3) prioritizing activities and avoiding unnecessary activities; (4) creating win-win situations for all parties involved; (5) establishing appropriate and empathetic communication with people and paying attention to their wishes; (6) adhering to teamwork, valuing inter-personal differences, and building mutual trust, and (7) renewing mental, social, emotional, and physical strength in the course of curriculum planning. Likewise, Thornton emphasized common points for the successful implementation of curriculum revisions, the most important of which were teacher participation, proper communication, successful teamwork, and commitment and motivation (48).

2.6. Curriculum Evaluation

Curriculum evaluation is the process of evaluating the values and merits of the curriculum (49). The implementation of the curriculum is a living and dynamic process demanding flexibility and adaptation (5). This is why curriculum evaluation is always followed by continuous changes and reforms (41). The oldness of curricula and their lack of renewal and improvement gradually render them ineffective, placing university courses and disci-

plines in an aura of uncertainty and leading to a phenomenon called "useless or throwaway curricula" (50). Therefore, the curriculum needs to be checked and controlled in terms of quality to achieve high-quality education, as one of the most important goals of universities and higher education systems (36). It is necessary to make necessary reforms in the curriculum or its components by examining all its aspects and elements (51).

2.7. Important Patterns of Curriculum Evaluation

Simultaneous with the institutionalization of the role and importance of education in the development and progress of societies, many efforts have been made to understand the dimensions and elements of educational systems. In fact, today, curricula have turned into one of the most specialized elements of education (52).

Curricula should connect work and education with each other and consider all educational elements, such as the teacher, learner, content, tools, and equipment, as well as the requirements of industrial and occupational environments (53). The design of educational programs should be tailored to the real needs of service recipients, and educational goals should be related to their practical needs.

In the process of forming the concept of the curriculum, educational experts have paid attention to its elements and components in order to explicitly explain this entity. A curriculum, as a learning plan, consists of different elements (39), and curriculum evaluation allows one to estimate how appropriate and applicable these elements are with regard to the student's condition and other educational facilities and limitations (37). Necessary amendments in the curriculum or its components should be considered after examining all its aspects and elements. There are differences of opinion among experts regarding the elements of the curriculum (53), ranging from at least one to at most nine elements (41). In most cases, attention is paid to four elements (39). Tyler and Zeiss support the view of considering four elements for curricula (16, 17). Eisner also considers five elements for every curriculum: goal, content, types of learning opportunities, content organization, and evaluation. Francis Klein's point of view (one of the most famous ones in the field of curriculum) regards nine elements (54). Nevertheless, other experts have explicitly clarified the elements of curricula, considering either nine (Klein), seven (Eisner), two (Beauchamp), or four (Tyler) elements (55). In most cases, the four main elements of curricula are mentioned as goal, content, implementation, and evaluation (56). For example, Tyler noted the elements of every curriculum as setting goals, content, implementation, and evaluation (17). For explaining the curriculum, Zeiss refers to the elements of goal, content, learning activities, and evaluation methods (16). Klein proposes nine elements, including purpose, content, teaching-learning strategies, learning activities, educational materials,

evaluation, grouping, time, and place, for curricula containing concepts and questions in order to understand them (54). The guiding concepts for these elements are: (1) Objectives, which are the same as the objectives of the program and the subjects of the lesson, seeking to change the behavior of learners; (2) content, which is what is to be learned; (3) learning activities refer to the participation of students in the learning process; (4) educational strategies, which are measures used to facilitate the transfer of information; (5) materials and resources, a set of tools or situations aiming to empower learners; (6) grouping, highlighting the importance of teamwork in research; (7) time refers to the fact that every curriculum is presented in a specific time frame within divided intervals, and its adequacy and management are very important; (8) place: The space where all learning processes are carried out; and (9) evaluation, checking if evaluation methods and taught materials are proportionate (57, 58).

During the curriculum quality evaluation process, questions are asked for each of these elements in order to clarify their status: (1) Goal: What goals do learners

need to achieve?, (2) Content: What do learners learn?, (3) learning activities: How do learners learn?, (4) teaching strategies: How does the teacher facilitate the teaching and learning processes?, (5) educational materials and resources: What will help learners to learn?, (6) Grouping: With whom does the learner study? 7. Time: When do they learn?, (8) Place: Where do they learn?, and (9) evaluation: How far have they progressed in learning? (54).

Curricula evaluation based on Klein's model is the most common quality evaluation model. The evaluation process can sometimes be conducted for all curricula elements or all courses, according to Klein's model, or for selected elements or courses according to educational needs (54, 59). In general, limited studies have been conducted to evaluate the quality of curricula (59), and in most of these studies, not all aspects of curricula have been comprehensively examined. Besides, most of these studies have not addressed the opinions of stakeholders.

Table 1 summarizes the results of some studies conducted in the field of curriculum quality evaluation.

Table 1. Studies Conducted in the Field of Curriculum Quality Assessment

Author (s)	Year of Publication	Title	Data Collection Tools	Results
Mehdizadeh et al. (57)	2009	Evaluation of the quality of curricula, teacher education courses.	Researcher-made questionnaire	The curriculum of the field fulfilled the necessary desirability and dynamics in none of the examined elements.
Shabiri et al. (49)	2015	Evaluation of the internal quality of the curriculum of the master's degree in educational sciences from the point of view of professors, students, and educational experts.	Researcher-made questionnaire	The curriculum elements of the mentioned field were far from the ideal situation.
Amini et al. (60)	2013	Evaluation of the quality of the engineering curriculum.	Researcher-made questionnaire	Educational quality in different fields of the Faculty of Engineering was average from the viewpoints of students.
Fathi and Ajargah (37)	2015	Evaluation of the internal quality of the medical ethics doctorate curriculum of Iran's universities of medical sciences.	Researcher-made questionnaire	The internal quality of the medical ethics curriculum was unfavorable.
Pascal Lehoux et al. (58)	2003	Evaluation of the master's program in the field of health technology evaluation.	Researcher-made questionnaire and interview	There were barriers and deficiencies in implementation, educational content, and resources. In order to improve and develop the mentioned program, a strong training program was needed, and, accordingly, skilled human resources were required.
Hossein Khan et al. (61)	2010	Evaluation of the quality of the teacher education program from the perspective of students of Lahore University of Medical Sciences.	Researcher-made questionnaire	Learners' attitudes and the ratio of teachers affected the quality of education, as well as the teaching skills of teachers, the use of appropriate and diverse educational strategies with an emphasis on activity-based and problem-solving educational methods, and continuous program reviewing and in-service teacher training.

Kırkgöz Y (62)	2009	The challenge of developing and maintaining curriculum innovation at higher education	Researcher-made questionnaire and interview	The curriculum of the mentioned field was inefficient in responding to the educational needs of students, and the entire current program was reported to be inappropriate.
Tahmasebi-Ghorrabi et al. (63)	2023	evaluation of the overall quality of the health technology assessment educational program from the perspectives of university professors and learners in Iran.	Researcher-made questionnaire	Problems and inadequacies were observed in a few curriculum implementation elements. Therefore, modifications were suggested to remove obstacles and enhance the target groups' capabilities and practical skills.

2.7.1. Challenges of Curriculum Quality Assessment Models and Their Critics

The expectations and needs of society, the capabilities of universities, and the interests and needs of students are among the factors that should be included when developing curricula. The participation of all stakeholders, including lecturers, managers, and students, is essential when making decisions related to curriculum planning, design, implementation, and evaluation, and all these decisions should be made in the institution itself instead of being imposed on the institution by an outside organization because these types of decisions and their implementation require appropriate authority.

Educational centers and systems are among the most important social systems, and the growth and development of other systems depend on their quality. The low quality of educational programs will lead to economic, social, and cultural poverty, as well as pouring incompetent graduates who lack the necessary skills demanded by the labor market. The main factors contributing to the low skills of graduates are the lack of use of new teaching methods in universities, not matching the content of curricula with the needs of society, professors not being up-to-date and knowledgeable, the existence of gaps between the university and industry, insufficient educational equipment and facilities, and not regularly monitoring and evaluating curricula.

Therefore, among the effective factors in the systematic development of higher education and improving its quality are curriculum planning and its frequent evaluation. Curriculum is the main core of all educational programs and activities, so inefficient and low-quality curricula waste not only students' time but also the money, energy, and capital of universities. Training programs should be designed based on the real needs of those who use respective services. Also, educational goals should be consistent with the practical needs of consumers. Curriculum revision is a mechanism that ensures the continuous improvement of training methods in higher education, and quality assessment is one of the most important tools for strategic development in higher education. Curriculum evaluation helps us find ways to develop effective curricula, as well as to modify, implement, and upgrade them.

The noteworthy point is that university curricula, after

being designed and implemented repeatedly over time, must be periodically evaluated and revised; otherwise, a phenomenon called curriculum deterioration will occur. According to what was said, Klein's model is the most common curriculum evaluation model, but it requires the categorization of the elements of curricula into two analyzable categories, as we achieved in this study, as well as the four elements of goal, content, evaluation, and the time of developing the program. Other curriculum elements are related to the time of its implementation. Also, another criticism of this comprehensive model is that the element of learning activities that focuses on the importance of active participation of learners, if examined from the perspective of learners, leads to an overestimated favorable grade, but if examined from the perspective of teachers, the outcome grade is unfavorable. The same problem is true for the element of learning and teaching activities that focuses on teachers' educational methods because teachers do not rate their methods unfavorably, but learners may dislike teachers' teaching methods based on their conceptual mind models. This source of bias should be taken into consideration when evaluating and preparing questionnaires because all the efforts of the research team should be directed toward collecting comprehensive and unbiased data.

3. Conclusions

Despite the importance of curricula in educational institutions, the level of attention to them is not enough, and the necessary efforts to review, evaluate, modify, and change them are not even on the agenda. There are many questions about the comprehensiveness and quality of the elements of these programs. On the other hand, continuous and rapid changes in medical sciences and technology raise new challenges in terms of the up-to-date status of curricula, which, without reviewing and revising, will turn them into outdated programs over time. It is obvious that the implementation of such a program without a deep review can not only waste human capital but also impose a lot of social and economic costs. Finally, the ultimate goal of educational curricula should be to train efficient professionals in related fields.

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