Review Article

BIOMEDICAL Journal of Scientific & Technical Research

ISSN: 2574 -1241

DOI: 10.26717/BJSTR.2026.64.010046

Importance of Curriculum Evaluation To Maintain Quality in Higher Education Institutions

Chávez Lamas, Nubia Maricela, Guzmán Fernández, Antonio, Carlos Sánchez, María Dolores, Pulido Cervantes, Blanca Gabriela, Falcon Reyes, Luz Patricia, Franco Trejo, Christian Starlight, Gómez Bañuelos, José Ricardo and Rivas Gutiérrez Jesús*

Universidad Autónoma de Zacatecas, México

***Corresponding author:** Jesús Rivas Gutiérrez, Universidad Autónoma de Zacatecas, México

ARTICLE INFO

Received: January 06, 2026

Published: January 19, 2026

Citation: Chávez Lamas, Nubia Maricela, Guzmán Fernández, Antonio, Carlos Sánchez, María Dolores, Pulido Cervantes, Blanca Gabriela, Falcon Reyes, Luz Patricia, Franco Trejo, Christian Starlight, Gómez Bañuelos, José Ricardo and Rivas Gutiérrez Jesús. Importance of Curriculum Evaluation To Maintain Quality in Higher Education Institutions. Biomed J Sci & Tech Res 64(3)-2026. BJSTR. MS.ID.010046.

ABSTRACT

When assessing the level of educational quality of a training process in a higher education institution, the best approach is to evaluate the curriculum based on the identification of the status of relevance, decision-making, guidance, and teaching practices, institutional-administrative responsibility, accountability, and administrative and teaching staff training, as well as what graduates working in the respective disciplinary field do in terms of their degree of competitiveness and social acceptance within their geographical and social area of influence, all of this in comparison with the mission, vision, and curricular objectives established by the educational institution. As a result, it may be necessary to make adjustments to the curriculum or carry out a comprehensive curricular restructuring, both of which will require an investment of time, money, and effort.

Keywords: Curricular Assessment; Curriculum; Curricular Restructuring

Introduction

For a long time, the political and administrative discourse in higher education has revolved around the idea of constantly updating curricula to ensure that the educational process is of high quality and relevant to present and immediate future times; this statement inherently implies that the political, educational, and social project of a Higher Education Institution must be a broad entity with its own independent existence. It is distinct and independent from other institutions of higher education. In this sense, curriculum evaluation, which is the first step in addressing and implementing this policy, has increased in interest and importance, mainly as a result of the emergence of new social problems that, combined with existing ones, are making the professional and social demands faced by graduates of these educational institutions more complex and challenging. The discourse on improving educational quality emphasizes the pressing need for updating, relevance, and applicability under three main guidelines: first, the urgent need for students, and especially graduates, to acquire greater autonomy and social responsibility; second, the pursuit of greater coherence, efficiency, and effectiveness in the functioning of the Higher Education Institution, with a more objective impact on the results of the educational process, making graduates more competitive in their respective fields; and third, a more efficient and effective use of the economic investment made by the State in each and every educational institution (Brovelli [1]). As a possible response to the evaluation results, a curriculum reform would need to be implemented.

It is understood that to justify a curriculum restructuring aimed at achieving higher quality in education, it is essential to first clearly identify, at the institutional level, the strengths, opportunities, weaknesses, and threats (SWOT analysis) facing the institution, as well as the efficiency of the institutional organizational structure, the functions and performance of the administrators, and the values, behaviors, and attitudes of the faculty, students, and alumni. The challenges of designing the future require reviewing the past; therefore, thinking about curriculum evaluation means reflecting on the educational process and its outcomes, and considering possible actions to address the findings, such as curriculum restructuring. Approaching this situation as a project to be carried out under specific contextual, local, global, and individual conditions, as a result of evaluating the curriculum in its ongoing development and evolution, and addressing the need for change and adaptation to different contexts, situations, and problems, is neither an easy nor a quick task. It requires time, effort, and active participation. Therefore, if this type of assessment is considered an inherent, intrinsic, and important aspect of the educational process itself, it is clear that the paradigmatic ideas and curricular projection plans that gave rise to its design, development, monitoring, and evaluation must be periodically compared with the existing labor reality at each historical and social moment.

This process will lead to the planning and programming of various situations based on the theoretical framework and a specific methodology used to explain the results found, thereby avoiding the simple placement of segmented, efficiency-driven parameters that only focus on the objective and internal aspects of the educational institution, neglecting subjective approaches of a philosophical and pedagogical nature., This includes the pedagogical principles that gave rise to the curriculum, as well as the current and new demands present in the reality of each disciplinary field. Carrying out a curricular reorganization and redesign as a result of this type of evaluation is fundamental because it provides certain guarantees to ensure that the education offered at the Higher Education Institution remains high-quality, relevant, and responsive to the changing needs of society, technology, and the job market.

Key Reasons for Its Importance

Therefore, the importance of the need for curriculum restructuring as a necessity and response to the results of an evaluation conducted at a Higher Education Institution must be considered in relation to a series of factors. Adjustments are being made to adapt to the changes and demands of the local, regional, national, and global environment. It is clear that the world is evolving rapidly with technological advancements and social changes; therefore, this restructuring will allow for the integration of new knowledge, skills, and competencies, as well as the development of critical thinking and collaborative abilities that students and graduates need to more successfully face current and future challenges and problems. A second important aspect is the pursuit of improved educational quality, ensuring that learning objectives are clear and that the content is up-to-date. This will guide participants in developing a new curriculum and designing new and more effective assessments of the teaching-learning process and the final product. A third important consideration should be based on relevance to the professional field, conducting periodic evaluations and, if necessary, updating the curriculum to effectively link the needs of the productive and labor sectors with the academic development of the Higher Education Institution, ensuring that graduates possess the skills and competencies demanded by employers. A fourth important aspect involves promoting inclusion and equity by facilitating and implementing accommodations for students with special educational needs, eliminating barriers and ensuring the equitable participation of all in the educational process.

The holistic development of the student would be a fifth element of importance to consider, specifically supporting their personal development by helping them discover and enhance their skills and abilities. This should be considered alongside the implementation of pedagogical and didactic innovations. To this end, the institution must promote and support the adoption of modern teaching strategies based on interdisciplinary and collaborative approaches that increase student participation and foster proactive engagement and a deeper understanding of the knowledge and skills taught at the Higher Education Institution. The sixth element of importance would be the coherent and effective design of the curriculum, and in particular the study plan, based on a comprehensive understanding (both vertical and horizontal) that allows faculty to better understand how the content of each course fits holistically within the overall curriculum (Vázquez Garatache, et al. [2]) In summary, the new curriculum planning, and particularly the study plan, should be based on these six points in order to design, develop, and implement a more dynamic, innovative, flexible, up-to-date, relevant, efficient, and effective educational process. This process should be established through the transformation of pedagogical and didactic practices, allowing for the creation of a new civic, disciplinary, and professional culture that effectively and competitively prepares students for the workforce.

Phases Of Disciplinary Training

Rethinking a curriculum, which does not necessarily mean creating a new one, should provide the region with an effective link between the needs of the social and productive sectors and their development. Some aspects that should be considered when rethinking the justification, development, and implementation of a new curriculum appropriate for the current century must be the result of a new paradigmatic approach when the existing one no longer meets the needs of the current and immediate future reality. This new paradigmatic model should support and organize the new way of thinking and acting educationally within the epistemological, theoretical, scientific, technological, cultural, political, economic, and human rights

and environmental frameworks that are articulated around a specific type of disciplinary training or education (Martelo, et al. [3]). These boundaries and guidelines for structuring the curriculum will inevitably lead to the creation of a new structure that, while retaining the most valuable elements of university professional training, will provide a much more dynamic, flexible, and up-to-date education, as demanded by the present and the near future. If this is the case, the curriculum and study plan in particular will have the following fundamental characteristics: it will include an initial phase of basic training based on a core set of fixed and stable content for fundamental, basic, and general education, which would be acquired initially within the disciplinary, universal, and professional training; and a second phase containing a logical, ordered, sequential, and relevant combination of flexible and dynamic content that can be revised according to professional changes and social and labor market needs, as well as responding to and integrating with the rapid advances in science and technology.

A third phase of specialization, resulting from the interrelationship of the first (basic) and second (specialization) phases, would shape a much more complete, versatile, competitive, and professional student and future graduate, with a broader and more comprehensive critical and social perspective. These three stages should transform the current school system. Another element that should not be overlooked and that must be considered as part of the overall justification is undoubtedly the urgent need to contextualize aspects related to the advancement of science and technology, especially in relation to information technology and computing, mainly because open education systems and online or distance education are currently gaining greater strength and importance, among other things.

Proposal For the Development of Curriculum Reengineering

The following is a methodological proposal based on three stages with a harmonious, flexible, and competency-based approach that fosters the participation of all relevant stakeholders in the educational institution. This approach aims to guarantee the quality, relevance, and adaptability of the educational program for the design and development of a curriculum redesign based on a comprehensive evaluation of the Higher Education Institution. The three stages necessarily require, before their implementation, adequate methodological and executive planning that considers assessment procedures using the SWOT analysis method, organized progressively from the superstructure to the mesostructured and concluding with the infrastructure (comparatively between what should be, what simply is, and what could be), taking into account the necessary time, resources, human resources, and logistical support. Good planning will guarantee savings in time, effort, and resources, practically ensuring success in its implementation (Ortiz [4]).

First Stage: Diagnosis And Justification

To begin this stage, a curriculum committee must be formed to be responsible for the planning, organization, execution, control, and correction of the three stages of the process from a general perspective, contextualizing the project in terms of "what and why," and establishing comprehensive and feasible objectives. Next, the planning phase will begin, where methods, resources, and a work schedule will be defined. The committee established to carry out the curriculum assessment should be a cohesive team comprised of administrative authorities, faculty, students, and administrative staff from different areas, capable of leading the ongoing process. After its formation and once the first stage has been planned, a larger number of people will be invited to join teams and working groups to begin the diagnosis and justification. These activities will stem from an analytical observation of the superstructure as an ideological and philosophical guide that... Acting linearly on the meso- and infrastructure, the work will consist of a research technique that goes beyond simply observing; it will involve paying holistic and systematic attention to the elements of reference, recording details, and then analyzing them thoroughly to understand causes, patterns, relationships, and consequences. This stage is fundamental because it provides essential and basic information for understanding the current and real state of the educational institution, based on a comparative analysis of the results obtained up to that point from the superstructure, mesostructured, and infrastructure.

The comparison of results will be made using as a reference point what is established in the existing ideological, organizational, and structural paradigm of the Higher Education Institution, which emerged as a result of a specific historical and social moment in the local, regional, national, and global environment that gave it its origin and reason for being. This paradigm represents the ideas and understanding of the realities and how one should act at that time to respond to the problems present, visualizing the different levels of concretization of its constituent elements and their interrelationship. Once the assessment of the superstructure is complete, the current situation of the internal mesostructured will be analyzed, first establishing its relationship and interaction with the super- and infrastructure. This review will involve evaluating how it is organized curriculum-wise in terms of distribution, organization, training, and operation, as well as the functions performed in each of its parts and the results obtained. At this stage, it must be assessed whether the current graduate profile remains relevant to the needs and demands of society and the specific labor market. This analysis will begin with a review of the interaction between the student's entry, progression, and graduation profiles. This requires a procedure that allows for and facilitates the collection of information provided by students, faculty, alumni, employers, specific social groups, and internal and external evaluation bodies. The process concludes with a review of the spe-

cific internal and external regulatory framework of the discipline(s) involved, in order to determine whether the institution is complying structurally and organizationally with local, national, and international regulations (Hurtado Talavera [5]).

The final part of the institutional diagnosis concerns the infrastructure. This structural component aims to determine whether the quantity, quality, distribution, and functionality of the infrastructure meet the demands and requirements for carrying out all the curricular activities of the Higher Education Institution. If not, the needs and causes of these shortcomings will be identified.

Second Stage: Planning And Design

Based on the review, analysis, and synthesis of the diagnostic and justification results, the second stage begins; it is important to clarify that all stages will be carried out in collective and comprehensive sessions, where the participation of most of the significant and representative individuals from all sectors that make up the Higher Education Institution will be sought. Once the first stage is completed, the second stage should begin with the planning, organization, execution, control, and correction of the design process as a general vision and conceptualization of the project, contextualized in the "what and why," based on the review and/or consultation of other identical, similar, or related curricula that are considered high-quality because they are current and relevant. Innovative, relevant, and novel approaches are essential, and it is also necessary to consult various bibliographic sources on certain aspects to integrate the social, philosophical, pedagogical, didactic, and humanistic foundations of the new educational proposal. This will facilitate the establishment of educational objectives and expected outcomes; subsequently, processes, resources, and timelines should be defined, addressing the "how, when, and who" will implement this design. The different working groups at this stage should interact to develop the new graduate profile and subsequently the entrance and progression profiles, once the graduate profile based on integrated professional competencies has been defined (if this approach is chosen or under another paradigmatic framework).

The skills, knowledge, competencies, behaviors, and attitudes that graduating students should acquire and possess must be clearly defined. The next step will be to establish the new structure or modify the existing curriculum, with each segment requiring a justification of its purpose and objectives. This justification will address the prior consideration of how the organization of topics and content, teaching methods, and evaluation of each part and the whole should be structured at each stage of the curriculum, integrating elements of curricular flexibility, mobility, professional internships, and training in research and the application of new technologies. Throughout this process, the committee must ensure that the changes or modifications made are aligned with the new Mission and Vision agreed upon by the Higher Education Institution. An essential part of curriculum design and planning is the faculty development program, as it is fundamental to provide those who need it (among current and future faculty) with training on the new approaches. Pedagogical and didactic methodologies, project-based learning, flipped classroom, collaborative and meaningful learning, participatory research, competency-based approach, etc. Similarly, the plan involves designing strategies so that teachers can create or adapt teaching and learning resources in accordance with the new curriculum. Once all of this is complete, the next step is to plan the best way to effectively communicate the changes and benefits to the entire school community to ensure acceptance and commitment to its implementation.

Third Stage: Evaluation and Monitoring

Once the diagnosis and justification have been completed, and the design and planning are in place, the next stage involves determining how to conduct continuous or periodic evaluation of the entire process through curriculum monitoring. The most important aspect of this is to primarily evaluate the results as they are obtained, comparing them to what was planned and established in the new learning objectives and the graduate profile (this profile includes the entrance and progression profiles). To this end, it is crucial to consider how the information will be collected and subsequently used for feedback. This involves designing strategies to maintain open channels for receiving statistical information and continuous feedback, and making the necessary adjustments or modifications using the collected evidence to guarantee its constant updating and relevance, focusing on student learning and their comprehensive disciplinary and professional development (Addine Fernández, et al. [6]).

Reflections, Suggestions, and Ad Hoc Comments

To continuously improve the educational process carried out in Higher Education Institutions, it must be clear that the reason for the existence of these educational institutions is to address and, as far as possible, resolve the real demands and problems that arise in the workplace and in society in general [7]. Therefore, the need to periodically and systematically conduct curriculum evaluations to understand its evolution and to determine what should be achieved, what has been achieved, and what has not been achieved, using a SWOT analysis framework, and to act accordingly, is fundamental. These assessments and their intentions may seem numerous and unnecessary when one has a fragmented, inertial, and limited view of the educational process, but it is a holistic exercise of reflection, analysis, and synthesis that allows each administration in turn to optimize and make timely and informed decisions. It is important to note, consider, and understand that when a curriculum restructuring is carried out, and in particular a revision of the study plan, as a consequence of a curriculum evaluation, it is practically impossible to have been able to immediately address each and every one of the various problems. The findings indicate that perfect, simple, and exact restructurings or modifications do not exist. Therefore, it is necessary to prioritize what needs to be addressed and/or corrected in the short, medium, and long term to bring together the necessary elements to achieve the envisioned education and training.

The scope of the elements considered to improve the educational process must extend from the reasons that justify the existence and functioning of the curriculum, the curricular structure, the characteristics of the programs and the different learning units, the teachers and administrators who operate it, and the criteria that allow for its evaluation. Consequently, the harmonious organization of all the components of a curriculum is a complex, arduous, and time-consuming task, given the need to integrate information into a rational, structurally consistent, and operationally functional document. If the new curriculum approach takes as its guide the trends and relevant orientations of the moment to lead the educational process toward the achievement of certain competencies, then it is necessary to have a clear understanding of this concept and the educational approach based on it. An essential aspect of this new approach and its considerations is the design that takes into account the development of competencies based on information and communication technologies, not as future needs but as current ones—skills necessary today to understand technological neologisms and terms associated with cyber and social networks, the presence and use of blue technologies related to the use, care, and conservation of water, green pro-environmental technologies, as well as genomics and nanotechnology. Although these may seem distant and unrelated to the disciplinary field of the Higher Education Institution, the reality is that they are already present, and therefore, they need to be considered when defining new and improved disciplinary and professional competencies.

The paradigmatic technological disruption is paving the way for new educational models that are beginning to emerge globally. These models aim to promote the growth and development of societies, emphasizing the importance of social, environmental, and sociocultural capital. This focus on these forms of capital in the educational processes of Higher Education Institutions gained renewed momentum after the World Economic Forum revisited and published a report in January 2025 titled "The Future of Jobs and Skills" (World Economic Forum, 2025). This report details various future skills that will be necessary for young employees entering the job market, including: complex problem-solving, critical thinking, creativity, people management, the ability to collaborate with others, emotional intelligence, and sound judgment. These include decision-making, service orientation, negotiation, and cognitive flexibility. Similarly, unprecedented transformations are occurring in scientific and technological activities, impacting professional practices. This is a result of growth and development in certain areas of knowledge where the ability to learn, apply knowledge, collaborate, and solve problems have become strategic professional competencies. These competencies are geared towards shaping a new global economic reality that affects the productive and labor systems of each country, in addition to modifying the structure of their educational and employment processes (Hurtado Talavera [5]). The professional competencies considered and described in curriculum restructurings or adjustments to the study plan quickly become obsolete, a situation that highlights and justifies the continuous evaluation of the curriculum, social service activities, and the need for ongoing renewal of professional practices.

Therefore, it is suggested that every six or seven years, the evaluation and possible restructuring of the curriculum at the Higher Education Institution be restarted, so that when accreditation or re-accreditation processes are carried out by internal and/or external organizations or associations, the plans are up-to-date according to the educational, training, and labor market requirements. This ensures that the restructuring successfully develops the competencies demanded by the comprehensive education of graduates. It is necessary, parallel to the educational process, to establish a framework for monitoring and managing the curriculum through a Quality Assurance System (QAS) specific to and internal to the educational institution. This system should continuously and systematically collect and analyze information about the educational reality being experienced, in order to evaluate and compare it with what is established in the formal or written curriculum.

Conclusion

We conclude that systematic curriculum evaluations in Higher Education Institutions represent a path, and possibly the best one, that makes it possible to successfully determine the quality level of the educational process and how the means, resources, and procedures contribute to achieving the goals and objectives of the educational institution. Therefore, one of the responsibilities of the current educational administration is to establish or continue the objectives of these types of evaluations in order to have continuous and up-to-date information about what is happening in the educational institution regarding teaching and learning activities, and thus determine whether or not the Mission, Vision, and Curricular Objectives are being met. This procedure, which facilitates obtaining information to assess the effectiveness of a curriculum, ensuring that it remains relevant to its educational and social objectives, is crucial for continuous improvement. It allows for guiding decisions and adjusting content to changing needs, thereby guaranteeing quality and accountability by translating educational policies into classroom practices between teachers and students. It also helps detect training gaps, update the curriculum, and align education with the demands of the job market and society. In conclusion, we believe that continuous educational improvement, the determination of relevance and appropriateness, decision-making, guidance, and practices, as as well as accountability and the ongoing professional development of faculty and staff at a Higher Education Institution, will only be possible by following the path of curriculum evaluation.

Once this assessment is complete, it will be possible to determine whether only minor adjustments to the curriculum are needed or if a comprehensive restructuring of the entire program is required. These

processes should always involve and encourage the participation of as many members of the Higher Education Institution's community as possible, striving to include the most significant and representative individuals from each sector, and keeping in mind that this type of work will require a significant investment of time, money, and effort.

References

1. Brovelli M (2001) Curriculum Evaluation. Fundamentals in Humanities Journal, University of San Luis, Year II, no. 2.
2. Vázquez Garatache E, Lozano Avilés BG, De La Trinidad SL (2022) Curriculum evaluation: an essential element in university evaluation. Management and Strategy Journal.
3. Martelo, Raúl J, Ponce, Antonio L, Acuña F, et al. (2016) Methodological Guide for the Design of an Information Technology Strategic Plan in Higher Education Institutions. University Training 9(1).
4. Ortiz RF (2022) Process Reengineering. Center for Administration Studies 6(1).
5. Hurtado Talavera FJ (2020) Curriculum Planning and Evaluation: Fundamental Elements in the Educational Process. Journal of Research in Social Sciences 5(2).
6. Addine Fernández, F., et al. (2003) Curriculum Design. Latin American and Caribbean Pedagogical Institute, Cuba.
7. (2025) World Economic Forum. Future of Jobs Report. Insight Report, January 2025.

ISSN: 2574-1241

DOI: 10.26717/BJSTR.2026.64.010046

Jesús Rivas Gutiérrez. Biomed J Sci & Tech Res

Submission Link: https://biomedres.us/submit-manuscript.php