
CURRICULUM EVALUATION MODELS: A LITERATURE REVIEW

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Abstract: *Curriculum evaluation serves as an essential instrument for determining the degree to which educational programs fulfill their intended purposes in terms of relevance, effectiveness, and overall quality. However, selecting an appropriate evaluation framework remains a persistent challenge, given the wide variety of available models and the differing contextual demands across educational settings. This study aims to analyze and compare the strengths and weaknesses of three widely recognized curriculum evaluation models: Tyler's Objective-Centered Model, the CIPP (Context, Input, Process, Product) Model, and Kirkpatrick's Four-Level Evaluation Model through a library research methodology drawing upon peer-reviewed scholarly literature. The analysis reveals that Tyler's model, while offering a clear, sequential logical structure, encounters difficulties when program objectives change and lacks sensitivity to broader contextual factors. The CIPP model presents a thorough, decision-driven evaluation framework applicable to both formative and summative purposes, although its comprehensiveness requires considerable investment of time and resources. Kirkpatrick's model, predominantly applied in training and professional development contexts, provides a practical hierarchical evaluation approach, yet has been criticized for its assumptions about causality and its limited applicability in higher education settings. The study concludes that no single model is universally superior; rather, the selection of an evaluation framework must be informed by the specific objectives, contextual conditions, and intended audience of the curriculum under review.*

Keywords: curriculum evaluation; evaluation models; CIPP; Tyler's model; Kirkpatrick model

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INTRODUCTION

Educational institutions frequently encounter difficulties in selecting an appropriate model for curriculum evaluation, given that each available model tends to generate different evaluative outcomes depending on its underlying focus, procedure, and criteria of judgment. In many cases, curriculum reforms are undertaken without adequate systematic evaluation, largely because educators and policymakers often lack sufficient guidance in determining which evaluation framework best suits their institutional needs and objectives. This situation underscores the urgency of a study that critically examines and compares the theoretical foundations of major curriculum evaluation models, so that practitioners are better equipped to make informed methodological choices.

Curriculum occupies a central position in the educational process, serving as the primary vehicle through which educational goals and learning outcomes are translated into structured learning experiences (Mulenga, 2018; Nouraey et al., 2020). In the context of educational quality assurance, curriculum evaluation plays an indispensable role in determining whether an educational program effectively achieves its intended objectives. As part of the broader field of educational evaluation, which encompasses student assessment, program review, and institutional accreditation, curriculum evaluation specifically addresses the judgment of whether a curriculum should be retained, modified, or discontinued (Anh, 2018). The importance of this evaluative process is further reinforced by the fact that curriculum decisions directly affect the quality of teaching and learning experienced by students, as well as the long-term credibility of an educational institution; an inadequately evaluated curriculum risks perpetuating ineffective practices or discontinuing programs that, in fact, hold significant instructional value.

A growing body of literature has examined curriculum and program evaluation models from various theoretical and empirical angles. With respect to the CIPP Model, Stufflebeam (Anh, 2018) originally conceptualized it as a decision-oriented framework encompassing context, input, process, and product evaluation, while Toosi et al. (2021) conducted a systematic review confirming its broad applicability in medical education settings. Regarding Tyler's Objective-Centered Model, Bhuttah & Xiaoduan (2019) traced its theoretical roots to a linear, objective-driven sequence of curriculum development, a perspective that remains foundational in contemporary curriculum design

discourse. In relation to Kirkpatrick's model, Cahapay (2021) specifically highlighted its structural limitations when transplanted into higher education contexts, complementing the empirical application reported by Paull et al. (2016) at Murdoch University, Australia. At the comparative level, Iqbal et al. (2021) analyzed the relative effectiveness of the Kirkpatrick, CIPP, and outcome-based models, whereas Agus et al. (2023) applied the CIPP framework specifically to evaluate an inclusive education curriculum in Madrasah Aliyah. More recent systematic reviews, such as those by Maryati et al. (2024) and Sari et al. (2025), further affirm the continuing theoretical and practical relevance of these evaluation frameworks, while Ullah et al. (2024) emphasize the ongoing need for context-sensitive curriculum evaluation approaches, particularly within professional education settings.

Despite the breadth of this literature, a clear research gap remains. Previous studies have predominantly focused on applying a single evaluation model, most often CIPP or Kirkpatrick, to assess a specific curriculum within a particular institutional setting (Agus et al., 2023; Paull et al., 2016). Comparative studies, while present, have tended to emphasize the empirical effectiveness of the models rather than systematically examining their theoretical strengths and limitations (Iqbal et al., 2021). Consequently, there remains limited scholarly guidance for practitioners on selecting an evaluation framework grounded in a structured understanding of each model's conceptual assumptions, procedural demands, and contextual suitability. This study addresses that gap directly.

Addressing this gap carries significant implications, both theoretically and practically. Theoretically, a structured comparison of Tyler's, CIPP's, and Kirkpatrick's models contributes to a more coherent understanding of how curriculum evaluation frameworks have evolved and diverged in their epistemological assumptions. Practically, such a comparison offers educators, curriculum designers, and institutional policymakers a clearer reference point for aligning their choice of evaluation model with the specific goals, resources, and contextual constraints of their educational programs, thereby reducing the likelihood of applying a mismatched or overly burdensome evaluation framework.

In contrast to those studies that utilized evaluation models as instruments for assessing specific curricula, this study aims to systematically analyze and compare the

theoretical foundations, procedural characteristics, strengths, and limitations of three prominent curriculum evaluation models, namely Tyler's Objective-Centered Model, the CIPP Model, and Kirkpatrick's Four-Level Evaluation Model, with the ultimate purpose of providing evidence-based guidance for selecting the most contextually appropriate framework in curriculum evaluation practice.

METHODS

Research Design

This study employs a library research approach, commonly referred to as a systematic literature review, as its foundational methodological framework. This design was deemed appropriate because the study does not engage in fieldwork or primary data collection but instead relies on the rigorous synthesis and critical examination of existing scholarly literature. Library research is broadly recognized as a methodologically sound approach within educational inquiry, particularly when the aim is to build conceptual understanding, map existing theoretical frameworks, or assess the comparative utility of evaluation models across diverse studies (Snyder, 2021).

Data Collection

Relevant literature was gathered through a structured and systematic search across several reputable academic databases, including Google Scholar, ERIC (Education Resources Information Center), JSTOR, and Semantic Scholar. To ensure thorough and targeted retrieval of pertinent sources, the search used carefully constructed keyword combinations, including "curriculum evaluation models," "CIPP evaluation model in education," "Tyler's curriculum model," and "Kirkpatrick model in higher education." Eligibility for inclusion was limited to peer-reviewed journal articles, book chapters, and other credible academic publications (Cahapay, 2021; Iqbal et al., 2021). The inclusion criteria required that sources: (1) directly address curriculum evaluation models or educational program evaluation frameworks; (2) be written in English with full-text availability; and (3) range from foundational theoretical works to contemporary empirical investigations situating these models within real educational settings. Sources that did not

meet these criteria, lacked scholarly rigor, or fell outside the thematic scope of curriculum evaluation were systematically excluded.

Data Analyze

The analytical process followed three sequential stages: reading and comprehension, critical annotation, and comparative synthesis. Each selected source underwent thorough reading to extract its central arguments, methodological orientation, and evaluative conclusions. The three evaluation models, the CIPP Model, Tyler's Objective-Centered Model, and Kirkpatrick's Four-Level Evaluation Model, were then subjected to comparative analysis to identify their structural characteristics, practical strengths, and inherent limitations within educational contexts (Maryati et al., 2024; Sari et al., 2025). This layered analytical process enabled the researcher to move from descriptive understanding toward a nuanced, evidence-based comparative perspective on the functionality and applicability of each model.

This analytical strategy enabled the researcher to move beyond mere description toward a nuanced understanding of how each model functions, the conditions under which it performs optimally, and the constraints it presents to evaluators. By situating these models within a broad spectrum of scholarly discourse, this study contributes a synthesized, evidence-based perspective on curriculum evaluation that is both theoretically grounded and practically informative for educators, curriculum designers, and educational policymakers (Toosi et al., 2021; Ullah et al., 2024).

FINDINGS AND DISCUSSION

Findings

Reviews of Different Models for Curriculum Evaluation

Curriculum has varied meanings, forms, and purposes for different people. Curriculum can be defined as a set of performance objectives or student learning, being a very practical orientation of curriculum (Mulenga, 2018). This statement can be elaborated to focus on specific competencies that learners should achieve. Proponents of this technique say that if a teacher knows the goals students should strive for, it is much easier to organize the elements needed to attain them. Another definition of curriculum is

the nexus of educational decisions, activities, and outcomes in a particular setting (Budiyanto, 2015). Oliva (1997, p. 4) in (Marzooghi, 2016) believes that curriculum is what is taught in schools, a set of subjects, content, a program of studies, a course of study, a set of materials, everything that is planned by the school, a series of experiences undergone by learners in a school. In other words, the concept of curriculum has been interpreted in various ways.

The curriculum construction process must ideally follow the three steps outlined by Ornstein and Hunkins (2009) in Bhuttah & Xiaoduan. The curriculum process is structured as follows:

- a. Curriculum Design: A specific order of the curriculum is called curriculum design. Specifically, many elements are crucial to designing a curriculum that includes functions and objectives.
- b. Curriculum Implementation: When an authentic use of a curriculum is put into practice, it is called curriculum implementation.
- c. Curriculum Evaluation: It involves planning, implementing, and information gathering, evaluating inconsistencies between planned and real educational results; to evaluate inconsistencies among the program of study and its implementation, to shape the efficiency of the development of the curriculum, and to clarify its importance (Kimpston and Rogers, 1986) in Bhuttah & Xiaoduan (2019).

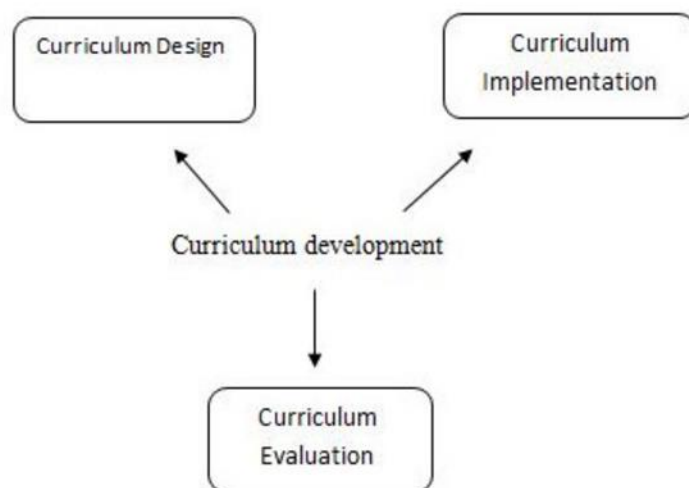


Figure 1. The Three Stages of Curriculum Development Process

Evaluation is more thoroughly defined as “the process of delineating, obtaining, providing, and applying descriptive and judgmental information about the merit and worth of some object’s goals, design, implementation, and outcomes to guide improvement decisions, provide accountability reports, inform institutionalization or dissemination decisions, and improvement decisions, and understanding of the involved phenomena” Stufflebeam (2003) in (Anh, 2018). Evaluation is needed to monitor a program's progress. The evaluation is not only the work of the expert. A teacher who senses that the curriculum might not be appropriate for the teaching and learning process at their school can also evaluate it to determine the effectiveness of their teaching and programs.

Curriculum evaluation does not end before entering classrooms, and the curriculum is not a package that ends after it enters classrooms. It is a never-ending process of building and altering. The value and efficacy of any curriculum can be assessed through curriculum evaluation. The outcomes of curriculum review are important to a number of stakeholders, including parents, teachers, the community, administrators, and curriculum publishers.

The term curriculum model refers to a conceptual framework and organizational structure for decision-making about educational priorities, administrative policies, instructional methods, and evaluation criteria (Rothstein & Goffin, 2000). Curriculum models offer clear frameworks for implementing and assessing programs. Choosing the proper model for curriculum evaluation is critical, as each model has unique characteristics regarding its main focus area, the evaluator's role, the evaluation's aim, and the target audience. There are some evaluation models that can be applied. They are as follows:

1. CIPP (Context, Input, Process, Product)

In 1965, an evaluation expert named Daniel L. Stufflebeam formulated an evaluation model called the CIPP model, whose name was derived from the initials of its components: Context, Input, Process, and Product. The context, input, process, product (CIPP) model has several attractive features for those interested in curriculum evaluation. In the CIPP model, process evaluation is directed at determining the conformity between

what is planned and what is being implemented. It is an activity that aims to evaluate learners' learning outcomes, enabling instructors to assess whether there has been an impact after the learning process (Umam & Saripah, 2018). Nouraey et al. (2020) has defined the components of the model as follows:

- 1) Context evaluation: What needs to be done? It assesses needs, assets, and problems within a defined environment.
- 2) Input evaluation: How should it be done? It assesses competing strategies and the work plans and budgets of the selected approach.
- 3) Process evaluations: Are they being done? They monitor, document, and assess program activities.
- 4) Product evaluation: Did it succeed? In the latest checklist, the product evaluation part is divided into impact, effectiveness, sustainability, and transportability evaluations:
 - a. Impact evaluation assesses a program's reach to the target audience.
 - b. Effectiveness evaluation assesses the quality and significance of outcomes.
 - c. Sustainability evaluation assesses the extent to which a program's contributions are successfully institutionalized and continued over time.
 - d. Transportability evaluation assesses the extent to which a program could successfully be adapted and applied elsewhere.

The CIPP evaluation model can be used in both formative and summative modes (Stufflebeam, 2003). In the formative type, based on the four core concepts, the model guides an evaluator to ask (a) what needs to be done? (b) How should it be done? (c) is it being done? (d) Is it succeeding? In the summative form, the evaluator uses the already collected information to address the following retrospective questions: (a) Were important needs addressed? (b) Was the effort guided by a defensible plan and budget? (c) Was the service design executed competently and modified as needed? (d) Did the effort succeed? Overall, the purpose of the CIPP evaluation is not to prove but to improve (Stufflebeam, 2003), and hence it is a useful tool for curriculum or project evaluation.

According to a study conducted by Gunung et al. in 2019, which implemented the CIPP evaluation model to measure the effectiveness of teaching at Politeknik Negeri Bali (PNB), several advantages were found after implementing the model. The advantages are: 1) it gives a very detailed or broad picture of a project, 2) it has the potential to move into

formative and summative areas, 3) it is more comprehensive or more complete in filtering information, 4) it can provide a good basis for making decisions and policies for designing a further program. Another advantage is that the CIPP evaluation model provides a comprehensive evaluation format that is comprehensive in each stage of evaluation. Moreover, the result of the CIPP evaluation model can be used as the basis to make four types of decision: (1) planning (that has an effect on the selection of objective and target of the activity), (2) structuration (that determines the optimal strategy and the design of procedures in attaining the objective), (3) implementation (that provides instruments to implement programs and improvements of the existing programs), and (4) recycling (whether an activity needs to be continued, changed or stopped) (Gunung & Darma, 2019).

Despite its widespread use, CIPP has some limitations that should be considered before using it for evaluation. Firstly, it should be similar to a requirements assessment. When it comes to needs, context evaluation shares some characteristics with needs assessment. Secondly, applying the model takes considerable time when the entire model is used (Anh, 2018).

2. Tyler's Model

The model was developed by Ralph Tyler and is designed to measure students' progress toward objectives. Tyler's model of development is known as one of the earliest curriculum evaluation models. The Tyler model is a curriculum evaluation model that pays close attention to how well the goals and objectives of the curriculum. Joseph also mentions the four major parts of Tyler's Model. These are: 1) defining objectives of the learning experience; 2) identifying learning activities for meeting the defined objectives; 3) organizing the learning activities for attaining the defined objectives; and 4) evaluating and assessing the learning experiences. Tyler's Model begins by defining the objectives of the learning experience. These objectives must be relevant to the field of study and the overall curriculum (Keating, 2006).

Tyler' Planning Model

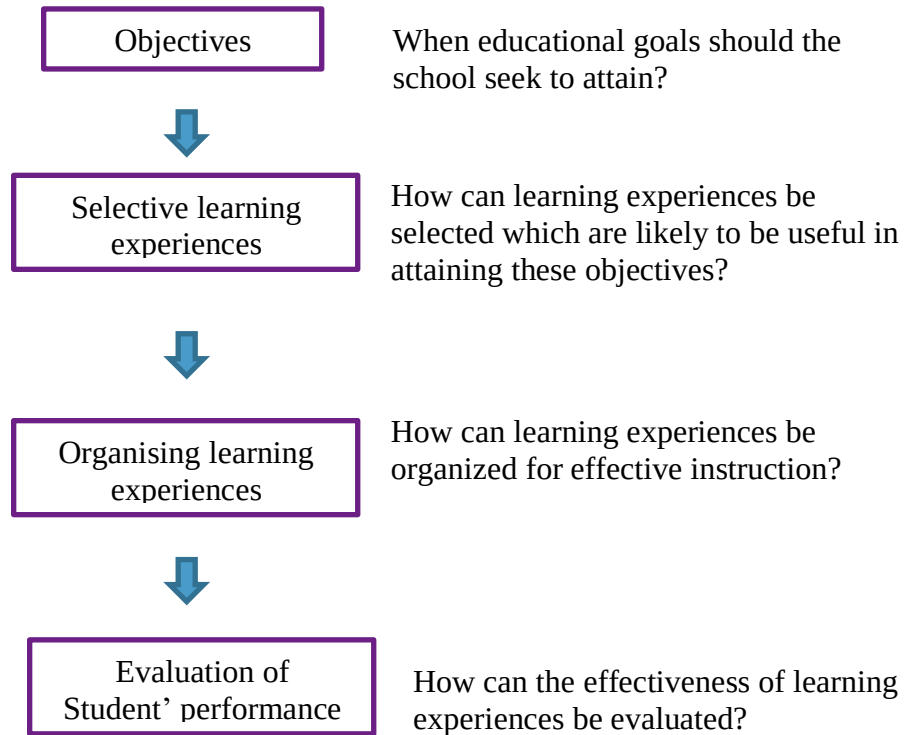


Figure 2. Tyler's Curriculum Planning Model

There are three essential elements in Tyler's model of evaluation: the learners, the life in the community, and the subject matter. For Tyler, the learner as a data source aids in understanding the child's requirements and interests, and the psychology of the child's relevant objectives, in line with the learner's appropriate age. The goal must demonstrate the specified learner's needs, behaviors, and interests. The challenges and requirements of society can aid in the development of goals by providing learners with knowledge, skills, and attitudes (Bhuttah & Xiaoduan, 2019). According to Taylor (1990) as cited in Bhuttah & Xiaoduan (2019), the need for education, acquiring skills to fulfill objectives, arranging the learned abilities, and assessment or evaluation are the four main things in curriculum building that must be followed in sequence. That is the reason why this model is called a linear model. Tyler's model of evaluation is well-known and widely used because it is a logical, sequential approach that shows that curriculum planning is a task of careful consideration and monitoring (Lau et al., 2001). However, this model has a

weakness in that it does not emphasize the reasons why a curriculum fails. Anh (2018) described additional limitations of this model. First, the evaluation focusing on behavior fails to evaluate objectives. Second, the objective does not apply to all subjects or the design of subject content (Huang, 2004) as cited in (Anh, 2018). Tyler's objective model's final limitation is its objective-based character. Because the objectives can change at any time during the program's implementation, the evaluation fails to assess the program under unstable objectives. This is in line with (Paudel, 2022), who states this model is a time-consuming method without any extra information and contribution except putting focus on the attainment of objectives.

3. Kirkpatrick's four levels model

Kirkpatrick's model, which is also known as the Hierarchy model, was first introduced in the 1950s (Nouraey et al., 2020). The Kirkpatrick model originally comprises four levels: reaction, learning, behavior, and results. As stated in Nouraey et al (2020), Kirkpatrick's four-level model of evaluation is as follows:

- a. *Reaction*: what participants think and feel about the program;
- b. *Learning*: the increase in the knowledge and/or skills of participants, as well as the change in their attitudes; evaluation at this level occurs during the period of program conduction through either a knowledge demonstration or various types of tests and assessments.
- c. *Behavior*: positive and effective transfer of knowledge, skills, and/or attitudes of participants from one level to another; this occurs as a post-training evaluation, usually through observations of managers, lecturers, or supervisors.
- d. *Results*: The final results occurred because of attendance, participation, implementation of program objectives in real-life situations, etc.

Bates (2004), in his study, described some of the benefits and limitations of this model. This model is recognized for its ability to provide the following: a simple system or language in dealing with the different outcomes and how information about these outcomes can be obtained; descriptive or evaluative information about the kind of training that is needed, thus allowing organizations to anchor the results of what they do in business points of view; and a practical approach for the typically complex evaluation

process. With these advantages, it is impossible to deny that the Kirkpatrick model has made major contributions to evaluation theory and practice. Along with the strength, there are at least three limitations of Kirkpatrick's model. These include the model's incompleteness, the assumption of causality, and the assumption that information's importance increases as outcome levels ascend. Cahapay (2021) found the weakness of this model when applying it in the field of higher education. It demonstrates a preference for using only the lower levels, rigidity that excludes other important components of the evaluand, and an absence of data on the causal links between the levels. In this section, the author must describe the results of the data analysis, both quantitatively and qualitatively, in accordance with the chosen research design. Then, describe how the results compare with previous research results: comparisons can mean that your research results are in line with or contradict existing literature or previous research.

Discussion

The primary goal of curriculum evaluation is to determine if the curriculum met the desired goals. If it is determined that the curriculum being designed does not satisfy the needs of the field, evaluation and criticism must take place. The various curriculum evaluation approaches outlined in the preceding section each have their own set of benefits and drawbacks. The CIPP model, Tyler's model, and Kirkpatrick's four levels model were all developed at different times. They have different steps and a different purpose of evaluation. Each model will fit a variety of curricula. The individual responsible for evaluation must be able to select the appropriate model based on the type of curriculum to be assessed, the goals, and the program's users. By paying attention to these details, the evaluator can obtain the intended outcomes from the evaluation process.

If the focus of the evaluation is to improve the curriculum rather than prove, the CIPP model is the best choice. Because it provides detailed information on how the curriculum is implemented, its effectiveness, and the problems encountered when applying it, the CIPP model is useful for conducting systematic, structured evaluations (Lee et al., 2019). Furthermore, Lee S Y et al. state that CIPP is a management-oriented evaluation approach that evaluates to assist decision-making by providing decision-makers with the necessary information. Considering the details of all aspects of the

program evaluation and the steps to follow when using this model, the evaluation takes a long time to complete (Anh, 2018). For some evaluators, this will be another challenge that should be handled.

The second model that was discussed in the previous section is Tyler's model. This model is widely used in education and has become a cornerstone of curriculum development and evaluation. Tyler's model focuses on the process of curriculum design and development, specifically the objectives and outcomes of educational programs. Along with the benefits, there also come the weaknesses. This evaluation model fails to assess the objectives and is time-consuming, providing no additional information or contribution (Paull et al., 2016).

The Kirkpatrick model is a globally recognized method of evaluating the results of training and learning programs. It evaluates both formal and informal training methods and assesses them against four criteria: reaction, learning, behavior, and results. Reaction-level measures assess whether learners find the curriculum engaging, favorable, and relevant. The evaluator may do some surveys to complete the data for this first level. The second level is learning, where evaluation can be done through formal and informal methods such as examinations and interviews, and should be assessed using pre- and post-learning assessments to identify accuracy and comprehension. The most crucial step is the behavior level, because the evaluator will measure whether participants are truly impacted by the learning and if they are applying what they learn. This measurement is usually done through observations of managers, lecturers, or supervisors. The final level, results, analyzes the curriculum's outcomes. This is the most costly and time-consuming level among the others. The biggest challenges are to identify which outcomes, benefits, or final results are most closely linked to the curriculum and to come up with an effective way to measure these outcomes in the long term.

CONCLUSION

This study aimed to analyze and compare the strengths and weaknesses of three prominent curriculum evaluation models Tyler's Objective-Centered Model, the CIPP Model, and Kirkpatrick's Four-Level Evaluation Model through a systematic literature review approach. The findings confirm that each model has distinct structural

characteristics, operational advantages, and inherent limitations, making it more or less suitable depending on the evaluation context.

Tyler's model, as the earliest among the three, offers a clear, logically sequential framework centered on objective attainment; however, it is limited in its inability to address unstable objectives and in its neglect of broader contextual factors. The CIPP model provides the most comprehensive and decision-oriented evaluation structure, capable of supporting both formative and summative evaluation purposes, though its full application demands significant time and institutional resources. Kirkpatrick's model, while widely adopted in training contexts for its practical hierarchical structure, has demonstrated limitations in higher education settings, particularly regarding its causal assumptions and its tendency toward lower-level evaluation (Cahapay, 2021).

Collectively, these findings affirm that no universally superior model exists. The selection of an appropriate evaluation framework must therefore be guided by the specific goals of the evaluation, the nature of the curriculum being assessed, and the institutional context in which the evaluation takes place. A thorough understanding of these models equips educators, curriculum designers, and policymakers with the knowledge needed to make informed decisions that ultimately advance educational quality.

SUGGESTION

Based on the findings of this study, several targeted recommendations are put forward. First, future research is encouraged to develop integrative evaluation frameworks that draw upon the complementary strengths of multiple models; for instance, combining the structural comprehensiveness of the CIPP model with the objective-focused precision of Tyler's approach may produce more contextually responsive evaluation outcomes. Second, educational institutions should prioritize capacity-building initiatives that strengthen evaluative competency among practicing teachers, ensuring that curriculum evaluation is not confined to policymakers or academic specialists but is embedded across all levels of educational practice. Third, longitudinal investigations are warranted to examine the sustained impact of curriculum evaluation on student learning outcomes and institutional quality improvement, areas that remain underexplored in current literature. Fourth, given that most established models originated within Western

academic traditions, researchers are urged to develop context-sensitive adaptations that account for the cultural, institutional, and resource-related differences in non-Western educational environments. Finally, the creation of practitioner-friendly evaluation instruments derived from these theoretical models would enable teachers and school administrators to conduct meaningful and self-directed evaluations without requiring specialist expertise.

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