

A REVIEW OF CURRICULUM DEVELOPMENT MODELS INFLUENCING COLLABORATIVE LEARNING IN EDUCATION

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ABSTRACT

The study aims to review and compare the stages of curriculum development system three different models. The models of curriculum development serve as guidelines for constructing curriculum for education. This study reviews the different stages of curriculum development using the Taba's Inverted Model, Tyler's Ends-Means Model and the Oliva Expanded Model of curriculum development. The curriculum offered in education is defined as a written document encompassing the thinking and skills for designing, implementing and evaluating the critical factors for the development of curriculum. In the opinion of the researcher, three models will be important in playing a critical role in the process of curriculum development for education. Taba's Inverted Model begins in the classroom with the teacher, as contrasted with other models. The Tyler's Ends-Means Model starts with the curriculum developer to determine the learners' needs and wants, since the information can help educators in motivating the student to learn. The Olivia's Expanded Model was to develop curriculum that are simple, comprehensive, and systematic.

KEYWORDS- Curriculum development, curriculum design, curriculum implementation, curriculum evaluation, review of Taba, Tyler; Oliva model, collaborative-learning.

1. INTRODUCTION

The term curriculum has been described as an accumulation of knowledge, learning experience in different learning environment with various cognitive content, instructional plan and the use of technology, which is accepted as a written document (Upholf, 1982). The task of curriculum development is ultimately building a relationship among content/subject matter people like students, teachers, parents and society. According to Lewis, curriculum is a set of goals which provides opportunities for engaging students with various kind of information and learning techniques (Lewis, 1972). The main purpose of curriculum theory is to provide a more meaningful value to the different aspects of curriculum activity as per the existing knowledge. It has been said by (Beauchamp, 1961); (Beauchamp, 1981); it was noted that the key purpose of curriculum theory is to give meaning to various aspects of curriculum activity according to existing knowledge. It was also clear that a curriculum system comprised of personnel and procedure organization so that a curriculum can be produced for implementation, appraisal and Modification. According (Ornstein & Hunkins, 2009), that there are three phases of a curriculum development system, such as designing, implementing and evaluating. Curriculum process is structured in a specific order firstly, having clear objectives in the curriculum stage. In the second stage is curriculum implementation stage where curriculum can be out into practice. In the final stage curriculum evaluation needs to be considered involving planning, implementing, information gathering, evaluate the inconsistencies among the planned and real educational results, to shape the efficiency of the development of curriculum and to clarify its importance (Kimpston & Rogers, 1986).

The development of learning in small groups in higher education showed strong evidence outperforming their counterparts in several key areas. These include knowledge development, thinking skills, social skills, and course satisfaction (Barkley, et al., 2014). This clearly shows the need to design curriculum suitable for higher interaction in learning. According to (Kurucaay & Inan, 2017); and (Laal & Ghodsi, 2012), indicates contend that

faculty can propel learning outcomes and students' experiences with 'difficult courses' if collaborative learning strategies are effectively applied. The benefits of collaborative learning include improvements in examination scores, students' positive perceptions about the academic experience, improved problem solving, communication and qualitative skills, (Prater & Rhee, 2003), as well as other affective and psychological benefits (Clark, 2019); (Slavin, 1990); (Yazici, 2004). This can be a good indication when developing curriculum for learners at the higher educational level. Unfortunately, the adoption of collaborative learning approaches in higher education lags workplace practices (Kunkel & Shafer, 1997).

Statement of the Problem

Since curriculum is the primary vehicle for achieving the goals and objectives of an educational institution, a focus on curriculum planning and development is naturally a key priority of education reform in a country. And since teachers' roles in curriculum planning are expanding beyond their own classrooms, they cannot choose to ignore education reform. Therefore, it is important for all teachers to understand as much as possible about the overall national reform of their education system in meet the new demand of the market. Curriculum development is one of the most challenging facts of education reform. The challenges of curriculum development are so complicated that it aims at facilitating teaching and teaching itself is enormously a complex and fluid process. These complexities serve as barriers to curriculum change and have contributed to a curriculum that many describe as archaic. Many have concluded that it's not what they learn in school but what they learn after school that prepares them for the future (Prensky, 2008). The integration of the curriculum and collaborative learning approach would certainly enhance the learning and academic performance of students.

Purpose of the Study

The purpose of reviewing the curriculum development models in designing, implementation and evaluation of curriculum helps to provide a better understanding when developing curriculum that learners can apply and practice throughout their personal life.

Significance of the Study

The positive outcomes of education reform can help to shift the scope of teacher involvement from the isolated classroom to a broader school curriculum-planning arena. The education reform can provide the education profession a great service when they reaffirm the importance education in the public's mind. The education reform should focus on the teacher's attention on the broader curricula across the institution. This would benefit all the stakeholders, teachers, students, government, schools, and businesses. It enhances diverse learning from different cultural and social groups of students through collaborative learning and gain a new perspective on life from their peers. It helps students to reflect upon their lives and values against those of their classmates and acknowledge the differences without being critical. It benefits the various stakeholders such as the educators in developing a curriculum that reflects the real business world where students work. It can help to nurture responsible citizens who can collaborate with their fellow citizens to solve social, economic, and political problems benefitting the whole society. The study can provide valuable input for the future development of educational curricula and its relevancy in today's context.

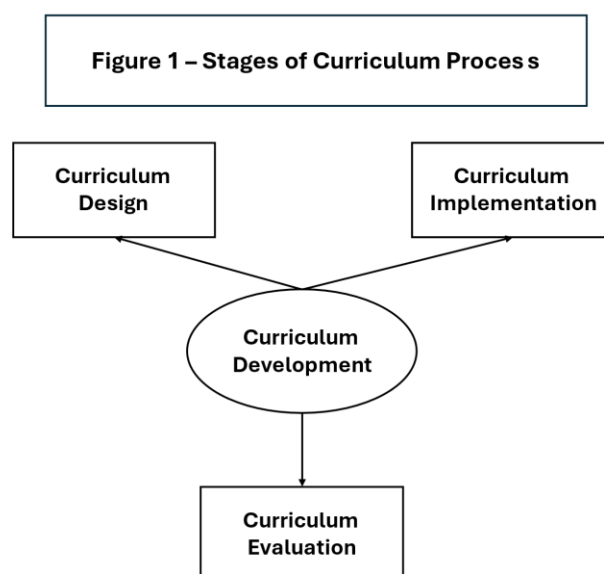
2. METHODOLOGY

The research conducts secondary methods and review previous literature on the topic of curriculum development, and collaborative learning. This study basically focuses on the implications that already have done by other authors and collected information from their published literature. The entire paper consists of a detailed curriculum development and collaborative learning approach in enhancing the student

A Review of Curriculum Development Models

All models of curriculum development assist in the process of curriculum development. The curriculum development models are very important for guiding all the planners of education, mentors, and administrators. Moreover, to produce positive changes, curriculum should be purposeful, planned and progressive. The objectives of a curriculum development model are based on the need of people at individual level as well as society level. Modelling is a way through which a curriculum development plan is defined. Models are samples that provide guidelines for educational purpose. The models are used in the development of curriculum for the better output (Oliva, 2009). This study examines the crucial stages of three curriculum development models known as Tyler's Ends – Means Model, Taba's Inverted Model, and The Oliva's Expanded Model. For the use of specific way of teaching, learning and evaluation strategies, to plan an underlying principle, the curriculum development models help designers clearly and systematically (Ornstein and Hunkins 2009). Figure 1 shows the

stages of curriculum development process that needs to be taken into consideration when developing curriculum for the schools.



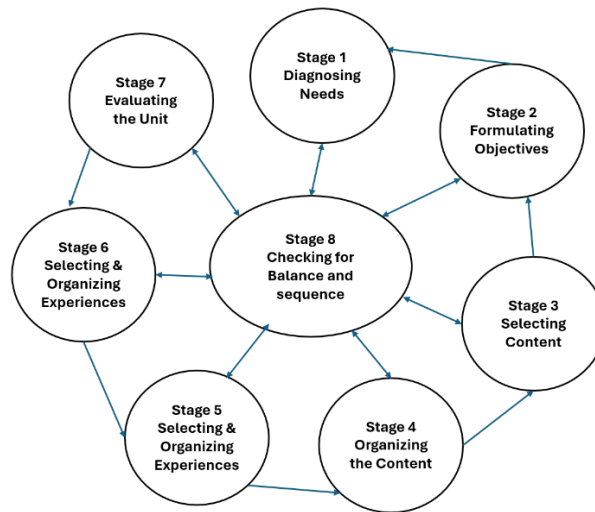
According to (Hunkins & Ornstein, 2004), curriculum development approaches can be separated into technical and non-technical approaches. The author mentioned that the Technical–Scientific approach is considered logical, efficient and effective in delivering education. The non-technical is described as subjective, personal, and aesthetic, focuses on the learner. Therefore, curriculum development comprises planning, implementation and evaluation, as well as people, processes and procedures. Although curriculum development models are technically valuable, but sometimes they neglect the human aspect for example the personal feelings, attitudes, values that are concerned with curriculum development (Ornstein & Hunkins, 2009). The Tyler and Oliva models were based on deductive approaches for developing curriculum development. In deductive approach goals, objectives are decided by curriculum planner, whereas teachers design the instructional strategies and afterwards both curriculum planners and teachers design the evaluation techniques. Deductive models proceed from general to specific but inductive model like Taba proceeds with the specific to general.

Curriculum Development Models:

Hilda Taba’s Inverted Model: The Eight Steps in Curriculum Development

The Taba Model was first proposed by Hilda Taba in 1971 for use by instructors at the classroom level and is described in her 1962 novel Curriculum Development: Theory and Practice (Laanemets & Katrin, 2013). Hilda Taba was an Estonian-born educational theorist in the United States who greatly influenced the ideas of curriculum design in the 1960s-1970s. (Hunkins & Hammill, 1994). The works of Hilda Taba are considered classic curriculum theory and continue to influence new ideas and innovations in curriculum development. Many of the curriculum design ideas described by Hilda Taba were influenced by her colleague and fellow curriculum theorist Ralph Tyler, who published a curriculum design process in his seminal work titled Principles of Curriculum and Instruction (Lunenburg, 2011). While the ideas and concepts surrounding Hilda Taba’s curriculum design theory were undoubtedly influenced by Ralph Tyler, Hilda Taba challenged the thinking of curriculum theorists with her flexible, teacher-centred approach (Wallen, et al., 1969). The model, despite being published in the 1960s, continues to inform curriculum design on a global scale and has influenced curriculum design in the Americas, Europe, and across the globe (Carl, 2009). Taba believed that educational strategies should be determined through democratic guidance and partnerships formed by teachers and other thought leaders in the area of study (Hunkins & Hammill, 1994). Through such a collaborative approach, instructors are positioned to drive curriculum decisions with the needs of students at the forefront (Lunenburg, 2011). An approach that emphasizes collaborations and teacher-driven content is applicable in education, where content is constantly evolving and continue to advance. In such an environment, the need for shared decision making, collaborations, and fluidity in curriculum design become critical to ensuring a progressive curriculum.

Figure 2 – Taba’s Inverted Model



Taba argued that in creating curriculum, teachers should participate in curriculum development, and this is known as grass-root approach. However, Taba extended the model with the importance of teachers in the development of curriculum. She believed that generalized learning objectives ought to be organized around curriculum which facilitates students in discovering principles efficiently (Middaugh & Perlstein, 2005).

Taba’s Inverted Model introduced Eight Key Steps as follow:

- Step 1:** Diagnosing needs using s needs assessment tools in designing the curriculum.
- Step 2:** Formulation of specific objectives including concepts and attitudes to be learned, ways of thinking to be enforced, and habits and skills to be mastered. These are to be accomplished by the teachers.
- Step 3:** Selecting appropriate and relevant content and activities that can parallel students’ development level and writing a rationale to support each choice.
- Step 4:** Organizing the content, beginning with the simple topic, by exploring them in greater depth, and moving to the more difficult topics.
- Step 5 and 6:** Selecting and Organizing the Experiences of teachers and students by having multipurpose activities that can help students achieve more than one objective.
- Step 7:** Evaluating the unit continuously, noting the students’ likes.
- Step 8:** The need to check for the balance and sequence, by ensuring that the activities provide appropriate opportunities to learn how to generalise, that the content sequence flows, that there is balance between written, oral work, research and analysis.

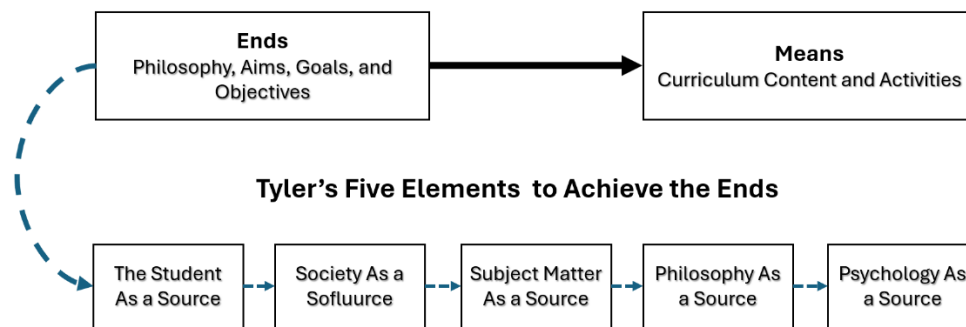
The Taba’s Inverted model taps into higher-order thinking skills and help to build comprehension skills such as inference, synthesizing and summarizing. It will certainly help the gifted learners to thrive with the opportunities to explore questions with multiple correct answers. It is an open-ended approach with no clear right or wrong response. When students are grouped together, they work collaboratively with others to build speaking and listening skills. This provides an opportunity for healthy classroom discussions before and after generalizations are made. There are some limitations such as difficulties encountered by some students to handle the open-ended aspect of the model. It can be challenging for teachers if there are no clear direction as it may be difficult for teachers to plan and prepare questions for the path of the students. It can be difficult to adapt for all subjects.

Tyler’s Curriculum Model

Tyler set a benchmark within the field of education when he published “Basic principle of curriculum and instruction” in 1949. His curriculum model was a response to rising concerns about accountability in education and has dominated curriculum planning since its publication (Beyer & Apple, 1998). The model provided a clear direction for the entire curriculum development process through its clear and precise objectives; and this in turn gave the teacher a clear outline of what they hope their students to achieve. These objectives can be carefully managed, making it easy to monitor attained outcomes (Brady & Kennedy, 2010). Tyler’s model can be applied to all learning areas and levels, and it is easy to find the appropriateness of a subject’s content, activities and teaching methods based on the objective evaluation.

The sequence of curriculum elements is logical, and the model is useful for easily forecasting results (Brady & Kennedy, 2010). Tyler claimed that by examining learners and their backgrounds, present and future society, and knowledge of the major disciplines; it could determine the preferred characteristics of future citizens. Brady and Kennedy also claimed that Tyler’s objectives model had an extremely progressive effect because it assumed teacher professionalism and focused attention on improvement of the school curriculum. This encouraged teachers to think about and reflect openly on the educational goals and objectives they had in mind for their students. Tyler’s Ends-Means Model, it is a revolutionary idea to curriculum planning. According to Tyler, the curriculum developer should start by deciding what purposes the curriculum is to have and then plan accordingly. Tyler suggested that several ends, are considered goals, educational objectives, and purposes be identified by examining five elements such as the learners, life in the community, subject matter, philosophy, and psychology.

Figure 3 – Tyler’s Ends-Means Model



The popularity of Tyler’s model was revitalised with the introduction of outcomes-based education in the 1990s (Tinning, et al., 2001). Despite criticism of the model, Tyler’s thinking continues to be popular, and his concepts of behavioural objectives, curricular organization, and evaluation are deeply embedded in the standards and accountability movement of the present day.

The Student as a Source: The curriculum developer should determine the learner’s needs and wants, since the information can help the educators in motivating the students to learn. In designing the curriculum, the students’ ability must also be considered.

The Society as a Source: The process of generalizing was central to all learning. The learners need to understand the environment, interacting with others is essential. This makes the local community and society at large the students, learning laboratory. When studying the community and the society, the student can find problems to solve and ways of solving them.

Subject Matter as a Source: Tyler was by John Dewey, who stressed “learning by doing”. He was further influenced by Jerome Bruner, who believed in the structure of knowledge. Therefore, Tyler agreed that that to master a subject, one must understand its underlining structure.

Philosophy as a Source: Tyler believes that a sound curriculum development begins with a sound thinking, and sound thinking begins by formulating a philosophy. It is important to define the school’s philosophy, and the teacher’s philosophy. Tyler’s model reflects the realization that to understand others, there is need that first to understand yourself.

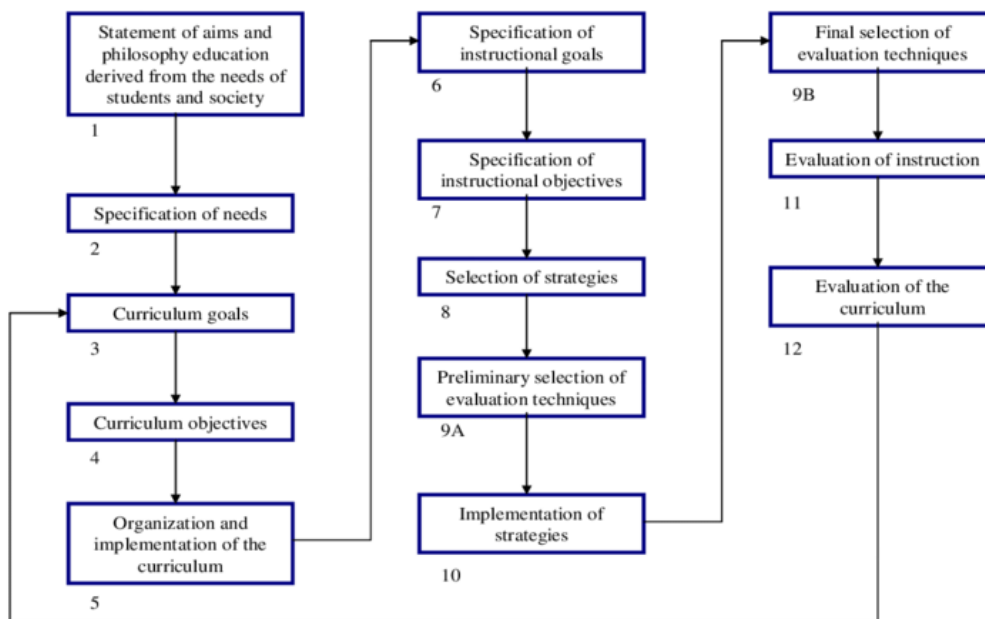
Psychology as a Source: Tyler believes that effective curriculum development requires understanding the learners’ levels of development and the nature of the learning process. Tyler’s philosophy involved beginning with what we want the students to know and be able to do it, and the designing every lesson by examining their own philosophies.

The Oliva Model (1992)

Peter Oliva’s Model has twelve components. It illustrates a step-by-step process of developing the curriculum from specifying the needs of students in general and the needs of the society to evaluating the curriculum. Oliva said that he wanted to come up with a simple, comprehensive and systematic model. This model integrates two sub-models: the curriculum sub-model and the instructional sub-model. The curriculum sub model includes mostly the planning stages, and it will not be completed if it is not translated into the instructional sub-model (Oliva, 1992). Oliva’s model answers the limitation of the Taba model in terms of diagnosing only the need of the student before formulating the objectives. He considered the society and the subject matter in stating the

aims of education and their philosophical and psychological principles which is like Tyler's considerations for selecting the objectives (Oliva, 1992).

Figure 4 – Oliva's Model



The Components of the Oliva Model

Component 1: Philosophical formulation, target, mission and vision of the institution

Component 2: Analysis of the needs of the community where the school is located

Components 3 and 4: General purpose and special purpose curriculum

Component 5: Organizing the design and implement curriculum

Component 6 and 7: Describe the curriculum in the form of the formulation of general objectives and specific learning

Component 8: Define the learning strategy

Component 9: Preliminary studies on possible strategies or assessment techniques to be used

Component 10: Implement the learning strategy

Components 11 and 12: Evaluation of learning and curriculum evaluation.

The model can be used in variety of ways. First, it offers a process for the complete development of a school's curriculum. The faculty can plan for the curriculum for a specific area and design ways in which it will be carried out through instruction. Or the faculty can develop school wide, interdisciplinary programs that cut across areas of specialization such as career education, guidance, an extra-class activity. This will certainly help the students engaged in collaborative learning in higher education. The model can help the faculty to focus on the curricular components of the model to make programmatic decisions and finally, the faculty can concentrate on the instructional components.

3. CONCLUSION

The best curriculum should be according to the needs of the learner at their individual or class level, while it should also consider the availability the study environment, facilities and time as well. All the needs of the learners need to be identified at the first level than only the objective should be defined according to the requirements and time. According to (Henson, 2010), there are two types of models: descriptive and predictive. Descriptive models explain the relationships among their parts. While predictive models help to predict future consequences. Two of the most influential curriculum models are Tyler's ends-means model and Taba's inverted model. Tyler's model proposes that curriculum development identifies the desired outcomes and designing the curriculum accordingly. While Tuba's model, were developed that the district, state, and federal levels, begins in the classroom with teachers. Because of this, teachers are more effective in implementing the new curriculum. The merits of anticipatory reflection, instructional planning is perceived as an important process in the professionalization of teachers. When implementing a complex instructional strategy such as

collaborative learning, a thorough preparation becomes even more important when designing a curriculum on the quality of lesson plans for implementation.

The value of any model or theory hinges on the degree to which its users understand the purpose of models and theories and the users' willingness to revise the model or theory as their local community, school, and students' change. Overcoming problems in curriculum development entails addressing potential roadblocks such as time limits and varying student demands. Educators must come up with innovative ideas to ensure that the curriculum is delivered efficiently and fulfils the different needs of students. This may entail prioritising key concepts, altering teaching tactics, or utilising technology to maximise learning possibilities. Collaboration with peers provides for the sharing of best practices and the pooling of resources, allowing educators to address obstacles collaboratively. Educators can negotiate curriculum creation barriers by leveraging the expertise and support of colleagues and utilising available resources. This ensures that students receive a high-quality education that suits their requirements.

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