



# Basic Concepts of Psychological Foundations of Curriculum Development

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**ABSTRACT:** This study aims to conduct an online literature review on the basic concepts of psychological foundation in curriculum development. Curriculum development is a complex and essential process in education, and an understanding of the psychological underpinnings becomes critical to designing effective and appropriate curricula for students. The online literature review method is used to gather a variety of literature sources, articles, and research relevant to this topic. This study investigates psychological theories related to learning and curriculum development. This literature review aims to provide an in-depth understanding of how students process information, build knowledge, and interact with their learning environment. The results of this study suggest that understanding the basic concepts of psychological foundations is essential in developing an effective and student-oriented curriculum. The integration of learning theories and an understanding of the psychological aspects of students can help create a more meaningful, motivating, and relevant learning environment for students.

**KEYWORDS:** Psychological Foundation, Curriculum Development, Learning Theory.

## I. INTRODUCTION

Curriculum is a term used in education to refer to the quantity and quality of learning students receive. It can generally be reviewed as a learning plan or program designed to organize and organize the educational process in an institution or educational institution and includes explicitly learning goals and objectives, subject matter content, teaching methods, and evaluation of learning outcomes (Kelly, 2004, p. 3). Ideally, the curriculum is designed considering the needs, goals, and characteristics of learners as well as the social and cultural environment in which the educational institution is located, with the primary objective of ensuring that educational goals and objectives can be achieved. Learners can acquire the knowledge, skills, and attitudes necessary to deal with an increasingly complex and rapidly changing world. Therefore, curriculum development should be done carefully and based on a deep understanding of the needs of learners (Adams & Adams, 2003, p. 31).

Therefore, a solid psychological foundation is needed in designing the ideal curriculum. The foundation of psychology has a significant role in curriculum development. This is because psychology studies human behavior and

mental processes, including in the context of education. By considering the principles of psychology in curriculum development, the curriculum will be more effective in achieving learning goals and objectives and meeting the needs of students (Kelly, 2004, p. 95).

Although it looks good and sturdy in design, in implementation, there are still many holes, especially in Indonesia. For example, in the case of curriculum implementation, educational institutions have yet to conduct large-scale research to determine whether the dynamics in which new knowledge is incorporated into teaching materials and classroom practices align with curriculum demands. In addition, many teachers still rely on analytical activities when designing lesson plans, modeling instruction, and refining instructional approaches to incorporate into the teaching and learning process. In addition, a sharp awareness on the part of educational institutions about the importance of teacher and parent collaboration (through school committees and others) in the actual implementation of the curriculum is also considered low (Salabi, 2020).

Meanwhile, from the side of the teachers or teaching staff themselves, Indonesian teachers' understanding of psychology is generally still



limited and needs to be improved. This is due to the need for more psychology material in the teacher education curriculum and the lack of psychological training and debriefing for prospective teachers when attending education. In the sphere of education, psychology is very important as a foundation for curriculum development and practical learning. However, awareness of the importance of understanding psychology among teachers still needs to be improved. For example, some teachers may need more clarification on the basic principles of psychology, such as learning theory and children's cognitive development, which can help them in designing effective and efficient learning (Kristiantari, 2015).

Therefore, efforts are needed to improve teachers' understanding of psychology through training and professional development, as well as the integration of psychology materials into the teacher education curriculum. This will help teachers understand students' characteristics and choose effective learning methods. By understanding psychology, teachers can improve the quality of learning and optimize students' potential. Thus, the formulation of the problem raised in this study only focuses on the study and meaning of the basic concepts of curriculum psychology.

## II. METHOD

This study uses a quantitative approach with the Literature Review technique, where researchers collect and synthesize data from various concepts and published publications. Theories and concepts are quoted from books that discuss the basic concepts of psychology curriculum development and are refined using analysis with online articles, both from within and outside the country.

## III. RESULTS AND DISCUSSION

### A. Etymology and History of the Curriculum

The word "*curriculum*" is taken from the Latin "*currere*," which means race or the course of the race. The term *curriculum* was first used in pedagogical circles in 1576 in a posthumously published by University of Paris professor Petrus Ramus entitled *Professio Regia* (Hamilton, 2013, p. 55). Allegedly, the term *curriculum* comes from the efforts of Calvinists, or adherents of the school of John Calvin, in the 16th century to build a larger and broader order in education by involving various parties, ranging from government,

educational institutions, educators, to the community in general. The purpose of developing an educational order is to improve the quality of education and meet students' needs in changing times. (Hamilton, 2013, p. 43).

Thus, it can be defined that a curriculum is a set of plans or guidelines designed to direct the learning process in an educational institution, be it a school, college, or other educational institution. The curriculum aims to determine learning objectives, material content, teaching methods, evaluation of learning outcomes, and organization of learning environments by the goals and vision of the educational institution. The curriculum also serves as an instrument that assists teachers and educators in designing and implementing effective and efficient learning processes for students. A good curriculum must be prepared based on various considerations, such as the community's needs, national education goals, the development of science and technology, and student's individual needs.

In the history of Indonesian education, the national education curriculum has undergone many changes, namely in 1947, 1952, 1964, 1968, 1975, 1984, 1994, 2004, 2006, 2013, and most recently, the independent curriculum in 2022. Such changes are a logical consequence of political, social, cultural, economic, and scientific changes. All national curricula are designed based on the same principles, Pancasila and the 1945 Constitution; the difference is the emphasis on the objectives of primary education and the approach to its implementation (Setiana & Nuryadi, 2020).

### B. Curriculum According to Experts

According to Wiles (2009, p. 2), the curriculum needs to be generally defined. However, several definitions are considered to influence the psychological foundation of curriculum development majorly. These experts combine various elements to describe the curriculum as follows:

#### 1. John Dewey

As a philosopher and educator, John Dewey is considered very influential in education. He views education as a social process that involves interaction between students, teachers, and the environment. Dewey also viewed curriculum as an essential aspect of the educational process.

According to Dewey (1998, p. 212), the curriculum is about what should be taught and how to teach it. He argues that curricula should be



designed to meet students' needs and interests and prepare them to live in a complex and evolving society. Dewey also emphasized the importance of *experiential learning*. Dewey saw that students should learn through hands-on experiences, such as conducting experiments, participating in projects, or visiting places relevant to the studied topic. Through the experience, students will be able to develop a deeper understanding of the material being studied and how it relates to everyday life.

In addition, Dewey also emphasized the importance of a holistic and integrative curriculum, which covers various aspects of life, such as academic skills, social skills, and practical skills. He also stressed the importance of integrating classroom learning with students' daily lives, so students can see how what they learn in class can be applied in real life. Overall, John Dewey's view of the curriculum is that it should be designed to meet students' needs and interests and prepare them to live in a complex and evolving society through experiential, holistic learning.

According to Kelly (2004, pp. 2–7), Dewey at least classifies curriculum into four types, which are widely used as references or inspiration for curriculum preparation around the world:

- a. *Explicit Curriculum*: Explicit curriculum is a curriculum that contains in detail what must be learned by students at each level and level of education. The objectives, learning materials, and achievement indicators that students must master have been determined and structured. The government or authorized educational institutions usually prepare explicit curricula that are normative.

In the explicit curriculum, the knowledge and skills taught to students are outlined in detail according to the grade level and subjects taught. The purpose of an explicit curriculum is for students to clearly understand what they must learn and reach each learning stage to facilitate the teaching and learning process and improve the quality of education.

An explicit curriculum is often associated with a teacher-centered learning approach, where the teacher is essential in preparing learning materials and directing students to achieve predetermined goals. However, explicit curricula can also be developed with a more student-centered learning approach, where students are directed to understand learning objectives and materials independently and actively.

- b. *Implicit Curriculum*: Implicit curriculum refers to learning not explicitly listed in the official curriculum but learned through students' daily experiences and social interactions inside and outside the school environment. Learning that occurs implicitly can affect students' values, attitudes, and social skills.

Learning that occurs implicitly is only sometimes planned or organized systematically by teachers or educational institutions. Instead, this learning occurs unconsciously through students' social interactions inside and outside the school environment, such as extracurricular activities, informal study groups, and interactions with parents or peers.

Examples of learning that occur implicitly are social skills, such as the ability to communicate, collaborate, and teamwork. It is learned through interaction with others in everyday life and needs to be covered in the official curriculum. Learning that occurs implicitly can also affect students' values and attitudes, such as tolerance, honesty, and cooperation.

- c. *Hidden Curriculum*: *Hidden* or implied curriculum refers to learning not explicitly and implicitly listed in the official curriculum but learned through students' daily experiences and social interactions inside and outside the school environment. *The hidden curriculum* usually includes values, norms, and social attitudes not listed in the official curriculum but learned through social interaction and experience in the school environment.

Examples of *hidden curricula* are values such as ethics, morals, and social responsibility. Students can learn these values through interaction with teachers, staff, and other students at the school. In addition, *the hidden curriculum* can also include social norms and behaviors, such as how to speak, dress, and interact with others.

*Hidden curriculum* can affect students' character and attitude, both positively and negatively. Therefore, educational institutions need to pay attention to the development of *hidden curriculum* and integrate it into the official curriculum to help shape the character and personality of better students.

- d. *Excluded Curriculum*: *Excluded* curriculum refers to learning not included in the official curriculum or curriculum that is supposed to be taught but is still essential for students to learn. Learning included in the *excluded*



*curriculum* is usually related to social, cultural, and environmental issues.

For example, the official curriculum should include environmental issues such as waste reduction, recycling, and conservation. However, this is an essential issue for students to study to understand the importance of protecting the environment and ways to do so.

In addition, social and cultural issues can also be included in the *excluded curriculum*. For example, learning about cultural diversity and different values worldwide is only sometimes included in the official curriculum, but it is an essential issue for students to learn to understand differences and promote inclusion and tolerance.

## 2. Ki Hajar Dewantara

Ki Hajar Dewantara, with the concept of "Pancadarma Perguruan Taman Siswa," was compiled in 1947. This concept is also called the "1922 Principle". Based on this concept, Ki Hajar Dewantara revealed that efforts to educate the nation's life must have a strong foundation. The principle of Pancadarma is the core of character education in Indonesia which is the core of curriculum development itself (Pelu, 2020). The five principles are (UNJ MFI Creative Team, 2011, pp. 78–79):

- a. Principle of Liberty: The principle of nationality teaches that every individual should love and fight for the interests of his or her nation. Education is done by raising national awareness through learning history, culture, language, and art.
- b. Natural Nature Principle: The natural nature principle implies that human nature is part of the universe. In nature, man is God's creature who maintains the universe's balance. Become God's Caliph to prosper the earth and preserve the environment. By nature, education is a deliberate and planned action to develop the potential of learners brought from birth.
- c. Cultural Principle: The principle of culture rests on the natural belief that man is a cultured being. That is, humans experience evolutive dynamics in the treasures of self-formation into ethical persons, for it is with that culture that Man finds his true soul. For Ki Hajar Dewantara, education and culture are flesh and blood for advancing human dignity and dignity. Culture is the spirit that unites and animates. Without culture, a nation will be drowned by foreign nations.

- d. National Principle: The principle of freedom affirms that one must feel one with one's nation and, in that sense, of oneness, must not conflict with humanity. Moreover, only nationality will be the glue of sovereignty, without the spirit of nationality that grows in the soul of every nation's child. Indonesia is just a mirage. Nationality unites rather than divorces. The reason for different tribes and religions is diversity.
- e. Humanitarian Principle: The principle of humanity emphasizes the importance of respecting human dignity and interests above material interests. This principle is taught about ethics, morals, and good personality in education.

According to Ki Hajar Dewantara, the curriculum must be based on educational principles that follow the Indonesian people's needs and culture. The curriculum should focus on developing students' abilities and creativity and considering cultural and environmental factors. Ki Hajar Dewantara also emphasized the importance of character or moral education, which means the curriculum must include ethical and moral values to help students become good individuals and valuable to society. In addition, Ki Hajar Dewantara also teaches the concept of an "open curriculum," which allows students to choose and determine their learning path. This concept was considered revolutionary in its time because it differed from the authoritarian education system implemented by the Dutch colonizers at that time. In Ki Hajar Dewantara's view, the curriculum must continue to develop and adapt to the needs and development of the times. A rigid and outdated curriculum will not be able to achieve the expected educational goals (Wiryoproanto, Herlina, Marihandono, & Tangkilisan, 2017).

Overall, Ki Hajar Dewantara's view of the curriculum is that the curriculum must be adapted to the culture and environment of society, consider character education, adopt the concept of an open curriculum, and continue to evolve to meet the needs of the times.

## 3. Mark Smith

According to Smith (1996), syllabi will generally not indicate the relative importance of topics or the order in which they should be studied. If people still equate curriculum with syllabus, they tend to limit their planning to consideration of the content or set of knowledge they want to impart.



Thus, according to him, the curriculum can be understood from several perspectives, namely:

- a. Curriculum as a Learning Plan and Guide: In this perspective, the curriculum is considered a plan or guide to organize learning in the classroom. This includes program design, learning objectives, and teaching methods.
- b. Curriculum as a Learning Experience: In this perspective, the curriculum is considered an actual learning experience. The curriculum includes all learning activities inside and outside the classroom, including social, emotional, and cognitive experiences that students experience.
- c. Curriculum as Social Action: In this perspective, curriculum is considered a social action that affects students' thinking and acting. The curriculum is considered a form of selecting values and goals that reflect the interests of the existing society and culture.

According to Smith, these three perspectives are interrelated and influence each other. Therefore, educators must consider these three perspectives in designing an effective curriculum. In addition, according to Smith, there are seven steps to shaping the curriculum into a procedure:

- a. Step 1: Diagnose needs.
- b. Step 2: Goal formulation.
- c. Step 3: Content selection.
- d. Step 4: Content organization.
- e. Step 5: Learning experience selection.
- f. Step 6: Organization of the learning experience.
- g. Step 7: Determination of what, how, and evaluation tools.

#### 4. Cecilia Braslavsky

According to Braslavsky (2005), a curriculum is a document or plan that determines educational goals, content, methods, and evaluation. However, he stressed that the curriculum cannot be separated from its social and political context. The curriculum is always linked to specific social and political goals that society wants to achieve. In addition, Braslavsky also emphasized the importance of a curriculum that is holistic and integrates different aspects of life. He argues that the curriculum should include values, skills, and practical knowledge relevant to students' daily lives. Braslavsky also highlights the importance of curricula responsive to student's needs and their local context. The curriculum must pay attention to the diversity of students' cultures, languages, and backgrounds. It also means that the

curriculum must be tested and evaluated continuously to remain relevant and practical.

Overall, Cecilia Braslavsky's view of the curriculum should involve a social and political context, include holistic aspects of life, be responsive to student needs, and be constantly tested and evaluated.

Thus, the curriculum is a plan or guide designed to organize and develop school learning activities. The curriculum is essential in directing educational goals and helping students reach their maximum potential. According to experts such as John Dewey, Ki Hajar Dewantara, and Cecilia Braslavsky, the curriculum should place students at the center of learning and be oriented toward social, humanitarian, national, and spiritual interests. Meanwhile, Mark Smith suggests that curriculum can be understood from several perspectives: learning plans, learning experiences, and social actions.

#### C. Foundation of Curriculum Development

In its development, the curriculum must constantly adjust to the times and the community's needs. An effective curriculum should cover various aspects of learning, such as cognitive, affective, and psychomotor, and pay attention to the social, cultural, and economic context surrounding students. The curriculum is considered a critical factor in education and human development. A good curriculum can help students acquire the knowledge, skills, and attitudes necessary to become competitive individuals and contribute positively to society. According to Robert S. Zais and Ralph W. Tyler (1988, 2016), three prominent aspects become the foundation or basis, focus, foundation in developing a curriculum, namely philosophical, sociological, and psychological (Masykur, 2019, pp. 44–50):

##### 1. Philosophical Foundations

The philosophical foundation in curriculum development focuses on understanding the concept of education, educational objectives, and the values and principles that are the basis for curriculum development. Some philosophical foundations in curriculum development are:

- a. *Essentialism*: This philosophical foundation emphasizes the need to teach essential knowledge and skills for students' future lives.
- b. *Perennialism*: This philosophical foundation emphasizes the importance of learning timeless and universal knowledge and skills



such as philosophy, literature, and mathematics.

- c. *Progressivism*: This philosophical foundation emphasizes developing students' problem-solving and critical thinking abilities through hands-on and contextual learning experiences.
- d. *Constructivism*: landasan filosofis ini menekankan pada pentingnya memahami bagaimana siswa belajar dan membangun pengetahuannya sendiri melalui interaksi sosial dan pengalaman belajar yang bermakna.
- e. *Humanism*: This philosophical foundation emphasizes the importance of developing students' overall potential, including physical, intellectual, emotional, and social aspects.

In curriculum development, the philosophical foundation can be used as a reference to determine the goals and values to be achieved through the designed educational program. Understanding the philosophical foundations in curriculum development is expected to produce educational programs following the expected educational needs and goals.

## 2. Sociological Foundation

The foundation of sociology in curriculum development focuses on understanding the relationship between individuals and society and the role of education in shaping a better society. Some of the foundations of sociology in curriculum development are:

- a. *Fungsionalism*: landasan sosiologi ini menekankan pada pentingnya pendidikan dalam membentuk individu yang dapat memenuhi kebutuhan dan tuntutan sosial, serta menciptakan stabilitas sosial dalam masyarakat.
- b. *Conflict*: landasan sosiologi ini menekankan pada pentingnya pendidikan sebagai alat untuk mengatasi ketimpangan sosial dan meredakan konflik dalam masyarakat.
- c. *Symbolic Interactionism*: This foundation of sociology emphasizes the importance of education in shaping individual identity through social interaction and the meaning given by society to the world around it.

In curriculum development, the foundation of sociology can be used as a reference to determine educational goals to be achieved in a broader social context. Understanding sociology's foundation in curriculum development is expected

to produce educational programs that can benefit society.

## 3. Psychological Foundation

The psychological foundation in curriculum development focuses on understanding individual development and learning. Some psychological foundations in curriculum development are:

- a. *Behaviorism*: This psychological foundation emphasizes understanding the relationship between stimuli and *responses* in learning. This approach assumes that individual *behavior* can be changed through the provision of appropriate stimuli.
- b. *Cognitivism*: This psychological foundation emphasizes understanding individuals' cognitive processes (thoughts and understanding) in learning. This approach assumes that learning occurs through the processing of information by individuals, which is then stored in both short-term and long-term memory.
- c. *Constructivism*: This psychological foundation emphasizes understanding the active role of individuals in learning. This approach considers that learning is not just the receipt of information but a continuous process of building knowledge and understanding through interaction between individuals and the environment.

In curriculum development, the psychological foundation can be used as a reference to determine learning strategies appropriate to individual needs and the stage of development they face. Understanding the psychological foundation in curriculum development is expected to produce educational programs that can provide positive and beneficial learning experiences for individuals.

### D. Basic Concepts of Psychological Foundations of Curriculum Development

As explained earlier, the psychological foundation of curriculum development is on the individual or student himself, by paying attention to the extent of cognitive, affective, and psychomotor development of students. Judging from the basic concepts, there will be educational, psychological theories, such as Jean Piaget, Lev Vygotsky, John Watson, Skinner, and others, which are essential to be discussed as a psychological foundation in developing the curriculum. Latas, why is educational psychology



used as a foundation? As Klausmier and Goodwin (1996, p. 3) argue, psychologists interested in discussing learning tend to uncover ways of obtaining, memorizing, and transferring knowledge more efficiently and meaningfully. Some basic concepts of psychological foundation in curriculum development include:

### 1. Learning Theory

Learning theory is a collection of concepts, principles, and views on how a person acquires knowledge, skills, and attitudes through the learning process. Learning theory also explains how students receive, process, and store knowledge during learning. Cognitive, emotional, and environmental influences, as well as previous experiences, all play a role in how understanding, or worldview, is acquired or changed and knowledge and skills are retained (Knud, 2004, p. 27). There are several learning theories put forward by experts, including:

#### a. Behavior Analysis

Behavior analysis or behavior analysis is a field of science that focuses on studying human and animal behavior. This field is based on the principles of *behaviorism*, which considers that behavior can be learned and modified through experience and the surrounding environment. Experts in *behavior analysis* use the scientific method to study behavior, which includes observation, measurement, and data analysis. In educational contexts, *behavior analysis* is often applied to helping children with behavioral or learning problems who have difficulties (Phillips & Soltis, 2009, p. 22).

In learning theory, behavior or behavior analysis is positioned as one approach or school in behaviorism. This approach views that human and animal behavior can be learned by objectively observing the behavior without regard to internal factors such as thoughts, feelings, or motivations. According to Skinner (1953), learning occurs when a person's behavior is changed or modified through the experiences he experiences in his environment. Desired behavior can be reinforced or enhanced, while punishment can inhibit undesirable behavior.

Furthermore, according to Skinner (1976), *behavior analysis* can be applied to design more effective and efficient learning programs in the context of learning. Behavior

analysis-based learning strategies will pay more attention to reinforcement through praise, rewards, or recognition of student achievements. However, this approach is also faced with several criticisms, including paying less attention to internal or mental factors in learning and ignoring individual differences and learners' uniqueness. Therefore, *the behavior analysis* approach in learning needs to be combined with other approaches that are more holistic and comprehensive.

Some of the learning techniques used in *behavior analysis* are as follows:

- 1.) *Learning and Condition*: According to Pavlov, there are three types of conditioning and learning: among them Classical conditioning, in which behavior becomes a reflex response to an antecedent stimulus, Operant conditioning, in which preliminary stimuli result from the consequences that follow behavior through reward (reinforcement) or punishment, and Social learning theory, in which observation of behavior is followed by modeling (Myers, 2009, hlm. 223).
- 2.) *Transfer of Learning*: In behavioral analysis, transfer of knowledge or *transfer of learning* is considered a process in which individuals use knowledge and skills learned in one situation to solve problems or tasks in different situations. *Transfer of learning* can occur in several ways, among others (Harris, Lowery-Moore, & Farrow, 2008):
  - a.) Positive transfer: when learning in one context facilitates learning in another. For example, if a person has learned how to operate a sewing machine, he may find it easier to learn how to operate another machine.
  - b.) Negative transfer: When learning in one context hinders learning in another. For example, if a person has learned how to drive a car with a manual transmission, he will probably have difficulty learning how to drive a car with an automatic transmission.
  - c.) Zero transfer: When learning in one context does not affect learning in another. For example, if a person has learned how to draw, the ability to cook food may remain the same.

*Transfer of learning* can be improved by considering the characteristics of the initial learning situation and the desired learning situation, as well as by considering the skills and knowledge that have been learned. In addition, the practice and application of skills in various situations can also facilitate *the transfer of learning*.



### b. *Cognitivism*

*Cognitivism* is one of the learning theories that focus on processing information by the human brain. This theory considers that learning involves the brain processing, organizing, and storing information. *Cognitivism* also considers that learning involves using critical and reflective thinking skills to gain a deeper understanding (Vandenbos, 2015, p. 201).

According to Lilienfeld (2010, p. 22), individuals actively process the information received and store it in long-term memory. Cognitive processes such as paying attention, remembering, organizing, grouping, comparing, and interpreting information are part of learning. *Cognitivism* also emphasizes the importance of understanding knowledge structures and developing a more profound understanding. This theory suggests using teaching strategies that activate and engage students actively, such as cooperative learning, problem-based learning, and project-based learning. In addition, the use of technology is also considered an effective tool for improving learning.

One of the leading theories of *cognitivism* is the Gestalt Theory. Gestalt theory is one of the psychological theories that posits that humans can perceive an object, not just part of it. That is, humans can combine different information into a whole picture. Gestalt theory emphasizes that humans can understand and organize their experiences in a whole or "gestalt" form. This gestalt concept has three main principles, namely (Boeree, 2000):

- 1) *Law of similarity*: Objects with something in common will be grouped.
- 2) *Law of continuation*: Humans tend to see objects that form smooth lines or patterns.
- 3) *Law of closure*: Humans tend to see imperfect or incomplete objects as complete objects.

### c. *Constructivism*

Founded by Jean Piaget, constructivism emphasizes the importance of the active involvement of learners in constructing knowledge for themselves. Students are considered to use background knowledge and concepts to assist them in acquiring new information. When approaching such new information, learners face a loss of balance with their previous understanding, which demands changes in cognitive structure. These changes effectively combine previous and new information to form better cognitive schemas. Constructivism can be both subjective and

contextual-based. Under the theory of radical constructivism proposed by Ernst von Glasersfeld, understanding relies on one's subjective interpretation of experience as opposed to objective "reality." Similarly, William Cobern's idea of contextual constructivism includes the effects of culture and society on experience (Bodner, Klobuchar, & Geelan, 2001).

According to Jean Piaget (1977), constructivism is a theory that says that the learning process occurs through the construction of new knowledge built by individuals through experiences obtained from their environment. According to Piaget, children actively build their understanding of the world through interaction with their physical and social environment. It views individuals as active knowledge makers, not passive information recipients. This process involves the construction of new knowledge through constant adjustment to existing cognitive schemes. Piaget also stated that everyone can understand and cope with the problems he faces independently, but this also depends on his level of cognitive development.

## 2. Cognitive Development

Cognitive development deals with how the human mind develops from childhood to adulthood. Understanding cognitive development is essential for developing a curriculum appropriate to students' abilities and developmental levels. *Cognitive development* or cognitive development is one of the psychological foundations in curriculum development. This theory suggests that children's cognitive development develops gradually through predetermined stages (Sellers, Machluf, & Bjorklund, 2018).

In curriculum development, *Cognitive Development* can be applied by linking learning material with the stages of children's cognitive development. For example, in the sensorimotor stage, children better understand learning material presented concretely and through direct experience. In contrast, children can already understand abstract and logical concepts in the formal operational stage. By linking learning material with the stages of children's cognitive development, the learning process is expected to be more effective and efficient in improving children's understanding and thinking skills (Schacter, 2011).

One of the leading figures in the theory of *Cognitive Development* is Jean Piaget, who divided children's cognitive development into four stages: the sensorimotor stage, the pre-operational stage,





the concrete operational stage, and the formal operational stage. Each stage has distinctive features and influences how the child perceives the world around him. The following stages of development were initiated by Jean Piaget (Piaget, 1977, pp. 103–117):

**a. Sensorimotor Stage (0-2 years)**

At this stage, the child experiences the world through the five senses and motor actions. They learn about cause-and-effect relationships and develop an initial understanding of permanent objects. At this stage, the child learns and understands the world through his five senses and physical movements. Children at this stage cannot think conceptually or logically and cannot understand that objects or objects still exist even though they are not visible. The child at this stage can also not form mental representations about the world around him and does not yet understand causality (cause-and-effect relationships). Children at this stage tend to become selfish and have difficulty understanding other people's perspectives.

**b. Pre-operational stage (2-7 years)**

At this stage, the child begins to use language and symbols. They can understand the world from their point of view and begin to develop imagination and conceptual thinking. Children begin to be able to use symbols to represent objects and events in their world, such as words or pictures. However, they are still limited in thinking logically and concretely and still need to understand the concept of conservation (the idea that objects remain the same amount even if their shape or appearance changes). Children at this stage tend to have an egocentric outlook, where they find it difficult to understand other people's perspectives and tend to interpret the world from their point of view.

**c. Concrete Operational Stage (7-12 years)**

At this stage, children understand the relationship between objects logically and can perform mental operations on concrete objects. They also begin to understand the concept of causality and understand the perspectives of others. Children begin to be able to think logically and concretely about objects and events in the real world. Children can understand simple mathematical concepts such as numbers, size, and sequence at this stage. They can also understand superficial cause-and-effect relationships and

causality and begin to develop the ability to solve problems.

At this stage, children also begin to be able to perform a series of more complex tasks, such as sorting, classifying, and grouping objects based on specific attributes. They also begin to understand the concepts of space and time and can understand the concepts of different perspectives. Although, at this stage, children have been able to think more logically and systematically, they are still limited to concrete thinking and are incapable of abstract thinking or complex hypotheses.

**d. Formal Operational Stage (12 years and above)**

Children understand abstract concepts, formal logic, and hypotheses at this stage. They can do analytical and critical thinking and understand justice and freedom. According to Jean Piaget's theory, the formal operational stage is the last stage of cognitive development. Children can already think abstractly and logically at this stage without depending on concrete objects or events. They can generate and test hypotheses, understand complex mathematics, science, and philosophy concepts, and develop systematic thinking skills.

Children can also understand the difference between possibility and reality at this stage and consider the consequences of the actions taken. They can also consider other people's perspectives and recognize that others may have different views. The Formal Operational Stage begins at the age of about 12 years until adulthood. At this stage, individuals can think abstractly and logically and apply their knowledge to new and complex situations.

**3. Motivation**

Motivation is an essential factor in learning. Understanding the factors that motivate students can assist curriculum developers in developing effective learning strategies. Motivation is why humans and other animals start, continue, or end a behavior at any given time. Motivational status is generally understood as the forces at work within the agent that creates the disposition to engage in goal-directed behavior. Different mental states often compete with each other, and only the most vital conditions determine behavior (Wasserman & Wasserman, 2020, p. 93).

This means that humans can be motivated to do something without doing it. The paradigmatic mental state that provides motivation is desire. But a variety of other circumstances, such as beliefs



about what to do or one's intentions, can also provide motivation. Motivation comes from the word 'motive,' which indicates a person's need, want, desire, or drive. It is the process of motivating individuals to take action to achieve a goal. Psychological elements that trigger people's behavior in the context of work goals may include the desire for money (Wasserman & Wasserman, 2020, p. 100).

Motivation is one of the essential basic concepts in curriculum development because it plays a role in determining learning objectives and designing effective learning strategies. Understanding individual motivations can help design learning strategies that fit students' needs and provide learning experiences that motivate them to achieve learning goals. The following are theories from experts that are generally used as a basis for curriculum development in the motivation section:

**a. Maslow's Hierarchy of Needs**

In this theory, Abraham Maslow (1943) argued that every individual has five basic needs that must be met: physiological, security, social, reward, and self-actualization. These needs are thought to influence an individual's motivation to achieve goals. This concept states that humans have five needs that must be met gradually to achieve happiness and personal development. The five levels of need are:

- 1) Physiological Needs: Basic human needs include food, drink, air, shelter, and sexual fulfillment.
- 2) Security Needs: The need for security, protection from danger, uncertainty, physical or psychological threats, and order.
- 3) Social Needs: The need for healthy and constructive social relationships, such as the need to be loved, accepted, and valued by others.
- 4) Reward Need: The need to be recognized by others and valued as a valuable and competent individual.
- 5) Self-Actualization Needs: The need to develop and reach maximum potential as an individual, pursue life goals, and have meaningful meaning in life.

According to Maslow (1954), higher-level needs will only arise after lower-level needs are met. He believed that the need for self-actualization is the goal of human beings and that reaching maximum potential is the key to achieving true happiness and life satisfaction.

Maslow's concept of a hierarchy of needs has been widely used in curriculum development to direct attention to the needs of students and help them reach their maximum potential.

**b. Expectancy Theory**

According to Victor Vroom, in *Expectancy Theory*, motivation is described as someone who will only be motivated to achieve a specific performance if they believe that their efforts will result in a good performance and that good performance will result in desired rewards. This theory emphasizes the importance of the relationship between effort, performance, and reward in motivating individuals. According to this theory, individual motivation depends on three main factors (Condrey, 2005, p. 482):

- 1) Expectations: An individual's belief that they can achieve the expected performance.
- 2) Value: The degree of importance of the reward desired by the individual.
- 3) Instrumentality: An individual's belief that their performance will result in the desired reward.

This theory is often used in organizational and management contexts but can also be applied in educational contexts and curriculum development to motivate students to achieve learning objectives.

**c. Flow State**

Proposed by psychologist Mihaly Csikszentmihalyi (2018). According to this theory, *flow or flow* is a state in which a person is fully engaged and focused on an activity that is considered challenging but can still be completed. In this theory, there are several characteristics of flow experience, including:

- 1) Clear goals
- 2) Live feedback
- 3) Adequate challenges
- 4) High concentration
- 5) High control over the activity
- 6) A pleasant and satisfying subjective experience.

Flow theory is often used in curriculum development to create a fun and satisfying learning experience for students to increase their motivation and interest in learning.

**4. Multiple Intelligences**

The concept of *multiple intelligences*, or MI, refers to humans having different types of intelligence. Developing a curriculum covering different intelligence types can help students develop their full potential. Multiple Intelligences



(MI) is a theory proposed by Howard Gardner (2011; 1989). According to this theory, intelligence is not only seen from academic abilities or verbal-linguistic and logical-mathematical intelligence but also from other abilities such as visual-spatial, body-kinesthetic, musical, interpersonal, intrapersonal, and naturalist intelligence. Gardner states that every individual has intelligence in a different area or field, and these intelligence are unrelated. Therefore, effective learning must pay attention to students' multiple intelligences and adjust learning strategies according to the intelligence possessed by students. Here are the types of MI according to Gardner (1989, p. 6):

**a. Logical-Mathematical Intelligence**

Logical-mathematical intelligence recognizes patterns, relationships, and order among objects and ideas. People with this intelligence tend to think analytically, critically, and systematically and quickly solve mathematical or logical problems. They also usually have good verbal skills and can solve problems using logical reasoning. Examples of jobs suitable for people with this intelligence are computer programmers, mathematicians, scientists, or logicians.

**b. Verbal-Linguistic Intelligence**

Verbal-linguistic intelligence refers to an individual's ability to use spoken and written language effectively. People with verbal-linguistic solid intelligence can express themselves well, articulate ideas and concepts clearly, and master various languages quickly. Verbal-linguistic intelligence is essential in various fields, such as education, journalism, law, literature, and more. People with verbal-linguistic solid intelligence can be influential writers, poets, lawyers, or teachers.

**c. Visual-Spatial Intelligence**

Visual-spatial intelligence is the ability of an individual to visualize and manipulate objects in his mind, as well as understand the relationship between these objects in space and time. People with visual-spatial intelligence can draw, visualize complex ideas, solve visual problems, and create or develop space-based or image-based strategies. Examples of jobs that people with this intelligence can do include architects, artists, illustrators, photographers, and cartographers.

**d. Kinesthetic Intelligence**

Kinesthetic intelligence refers to the ability of an individual to use his body effectively and coordinatively. People with good kinesthetic

intelligence tend to have good physical abilities, including eye-hand coordination, body balance, speed, dexterity, and physical strength. Individuals with high kinesthetic intelligence are often considered to have talents for sports, dance, martial arts, or professions that require good physical and motor coordination, such as surgeons, firefighters, and mechanics. However, kinesthetic intelligence can also be applied in other fields, such as art, music, or even business and management, where physical abilities are necessary to lead and inspire others.

**e. Musical Intelligence**

Musical intelligence is the ability to recognize, produce, and express musical patterns and appreciate different types of music. People with good musical intelligence can understand and remember melodies, rhythms, and harmonies easily and express emotions through music. People with high musical intelligence can also be excellent musicians, singers, composers, or connoisseurs.

**f. Interpersonal Intelligence**

Interpersonal intelligence or social intelligence refers to an individual's ability to understand, feel, and act according to the feelings of others. This intelligence includes the ability to understand the emotions, motivations, and desires of others as well as the ability to communicate, build interpersonal relationships, and solve problems socially. Individuals with high intelligence tend to form good interpersonal relationships, work together, lead, and influence others. It is also required in various professions that require social interaction, such as teachers, counselors, psychologists, and entrepreneurs.

**g. Intrapersonal Intelligence**

Intrapersonal intelligence is the ability to understand and control oneself. People with good intrapersonal intelligence tend to have a good understanding of their strengths and weaknesses and be able to regulate emotions and motivate themselves effectively. They are also able to consider options wisely and make informed decisions. Examples of professions that can demand good intrapersonal intelligence include psychologists, counselors, spiritual leaders, and entrepreneurs.

**h. Naturalist Intelligence**

Naturalist intelligence or natural intelligence is the ability to understand nature and living things and have an interest in and sensitivity



to the surrounding environment. People with naturalist intelligence tend to be sensitive to natural changes and can respond quickly. They can also recognize patterns in natural life and are highly sensitive to the surrounding flora and fauna. Naturalist intelligence can help a person in fields such as agriculture, animal husbandry, environmental conservation, and natural science. Howard Gardner introduced the concept of naturalist intelligence in his theory of multiple intelligences.

MI has been adopted and applied in education, especially in the United States, as a basis for developing a more holistic and inclusive curriculum and teaching. However, this theory has also become controversial because it is considered scientifically untestable and still sparks debate among education experts (Geake, 2008).

## 5. Lifelong Learning

Lifelong learning refers to the importance of continuous learning throughout life. Curriculum development that considers lifelong learning can help students become independent and sustainable learners. *Lifelong learning* is a learning process that lasts throughout a person's life, not just limited to the period of formal education in school or college. This concept describes that learning and self-development continue throughout a person's life, formally and informally, in various contexts and life situations. *Lifelong learning* aims to develop one's abilities and knowledge to continue to grow and develop personally, socially, and professionally throughout life (Dea, 2000, p. 25).

Lifelong learning focuses on holistic education and has two dimensions, namely, lifelong and broad learning options. It demonstrates learning that integrates traditional educational proposals and modern learning opportunities. Learning concepts in *Lifelong Learning* include (Qinhua, Dongming, Zhiying, & Hao, 2016, pp. 19–20):

### a. *lifelong learning*

As a main principle, learning occurs throughout a person's life, from childhood to old age. This concept illustrates the importance of continuous learning and self-development for personal and professional purposes. Lifelong learning aims to improve the quality of life, improve a person's knowledge, skills, and abilities, and increase their participation and contribution to society. This concept also emphasizes learning as

an ongoing and continuous process, not just a school activity or formal education.

### b. **Learning is a process, not just a result.**

The learning or teaching-learning process is a process that focuses on the result or learning *output*, such as grades or certificates, and the process passed by individuals in acquiring the desired knowledge, skills, and attitudes. The teaching-learning process also includes various experiences and interactions experienced by individuals during the learning process, such as interactions with teachers or instructors, classmates or co-workers, and learning experiences through activities outside the classroom.

Process-focused learning allows individuals to develop lifelong learning abilities to deal with changes that occur in the surrounding environment more adaptively. That way, process-oriented learning can assist individuals in acquiring new knowledge and skills that are relevant and *up-to-date*, which is crucial in the face of ongoing changes in today's world.

### c. **Learning can happen in different places and times.**

Learning occurs not only in the classroom or formal educational institutions but also in the surrounding environment, such as at home, work, or even in social activities. In addition, learning can also occur at any time, not only during school hours or working hours but also outside working hours or on weekends. In today's digital era, learning can happen online through *e-learning* platforms or other learning applications.

### d. **Anyone can do learning.**

The concept of lifelong learning views that learning is limited to a certain age or status and can be done by anyone, anytime, and anywhere. In addition, learning does not only occur in formal environments such as schools or colleges. However, it can also occur in non-formal or informal environments such as at work, at home, or through daily life experiences. Thus, everyone has the same opportunity to develop themselves and acquire new knowledge and skills.

### e. **The learning carried out is holistic.**

Lifelong learning is holistic and integrated, covering physical, psychological, social, and spiritual aspects. It recognizes the individual as a complex and diverse being, so continuous learning does not only focus on academic



development alone but also on other aspects that are important for individual success in life.

**f. Learning is directed at mastering competencies.**

The concept of *lifelong learning* emphasizes the importance of developing abilities and skills in the world of work. Learning is not only oriented to theoretical knowledge but also to practical application in everyday life and work. The goal of learning is to achieve competencies that can improve individual performance and productivity in the workplace. Therefore, lifelong learning should focus on developing competencies relevant to the demands of an ever-evolving world of work.

**g. Learning that requires the support of institutions, organizations, and communities.**

Lifelong learning also requires support from various parties, including educational institutions, organizations, and society. Educational institutions can provide access to formal education programs, such as courses and degree programs, while organizations can provide training and skills development for their employees. In addition, the community's support facilitates access to resources, such as libraries, training centers, and community development programs. With the proper support, lifelong learning can be an initiative that can yield long-term benefits for individuals and communities.

**h. Learning that is inclusive, respecting individual and cultural diversity.**

Inclusive learning respects individual and cultural diversity and provides equal opportunities for learning for all without discrimination. This means that learning must be designed to meet different needs and learning styles and accommodate differences in culture, language, religion, gender, and more. Inclusive learning also promotes a safe, relaxed, and open learning environment where everyone feels welcome and valued.

#### IV. CONCLUSION

Understanding psychology as a cornerstone of the curriculum is very important for teachers because it will be beneficial in understanding how students learn. By understanding the psychological theories associated with learning, teachers can identify effective teaching strategies and assist students in achieving learning objectives. In addition, optimizing

students' potential. For example, by understanding student characteristics, teachers can help optimize students' potential in learning and develop their competencies. In addition, by tailoring the curriculum to student needs by understanding students' psychological and developmental needs, teachers can tailor the curriculum to suit students' needs and abilities. Lastly, it can facilitate student welfare. Understanding student psychology can help teachers understand and facilitate student well-being in the learning process and assist students in overcoming personal issues that may affect their learning. Teachers can develop effective curricula and align learning strategies with student needs

by understanding the basic concepts of the psychological foundations of curriculum development.

Understanding the basic concepts of the psychological foundation is very important in curriculum development because it provides a solid theoretical foundation and is beneficial in designing a practical curriculum that follows student needs. By understanding the psychology of development, motivation, and learning, curricula can be designed to meet the needs of students at every stage of their development and facilitate more effective learning. In addition, understanding basic concepts such as learning theory, cognitive development, motivation, multiple intelligences, and lifelong learning can help design a curriculum that holistically develops students' potential and integrates physical, psychological, social, and spiritual aspects.

Finally, inclusivity and support from institutions, organizations, and communities should also be considered in curriculum development to ensure that the curriculum is accessible to all students, respects individual and cultural diversity, and facilitates lifelong learning.

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