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USING THE SCIENCE OF LEARNING TO CREATE AN EFFECTIVE CURRICULUM DEVELOPMENT

BY

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Abstract

This paper is based on the notion that learning psychology is one of the essential components when creating a curriculum, as we consider how psychology can be used to teach and learn effectively.Theories of learning, specifically behaviourism, cognitivism, and constructivism, were evaluated as some of the major theories in the acquisition of information by learners. The study also explored other areas of psychology with respect to their influence on the development of the curriculum. Some of the ways in which learning psychology could be applied in the development of the curriculum included the use of learner-oriented curriculum, learning through activities, differentiated instruction, feedback and reinforcement, and practical learning. It was also established that the approaches promoted motivation, memory, engagement, and improved academic results for students due to the use of instruction within natural learning. Despite this, the study identified several factors that might interfere with the implementation of psychology in the curriculum planning process, including diversity among the learners, lack of preparation among the teachers in educational psychology, inadequate instructional materials, large class sizes, rigid curriculum policy, and even cultural and environmental factors. These challenges have been known to be the cause of disparity between psychology theories and their practical applications in classroom settings, and therefore limit the capabilities of curriculum implementation. Nevertheless, despite its demerits, the study revealed that learning psychology principles should be included when designing curriculums in order to ensure quality education. A curriculum that integrates the psychological traits of the learner – cognitive, affective, and behavioral – ensures quality education. Some of the recommendations from the study include reinforcing teacher education in educational psychology, adoption of learner-centered methods, incorporation of psychological principles in curriculums, improvement of learning environments and resources, reducing class sizes, making curriculums flexible, and promoting educational research.

Keywords: Psychology of Learning, Curriculum Planning, Psychological Approaches to Curriculum Planning

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Introduction

The psychology of learning is among the most important psychological theories used in curriculum planning. It is an area of science concerned with the process of acquiring, processing, retaining, and utilizing knowledge on the part of the learner. This theory explores the cognitive, affective, psychomotor, and social aspects of learning, enabling teachers to plan instructional activities that meet learners' developmental and educational needs. In contrast, curriculum development is the process of planning, organizing, implementing and evaluating learning experiences designed to accomplish educational goals. The connection between the psychology of learning and curriculum development is significant in contemporary educational systems. Theories developed by educational psychologists, including Jean Piaget, Lev Vygotsky, and B.F. Skinner, have greatly influenced our understanding of how learners grow intellectually, socially, and psychologically.Their theoretical frameworks form the basis of developing curricula that meet the learners' level of development, motivation, interests, and capabilities. Behaviorism stresses reinforcement and practice, cognitivism is concerned with mental processes and meaningful learning, whereas constructivism underscores active involvement and social interactions in the process of constructing knowledge (Piaget, 1972; Vygotsky, 1978; Skinner, 1953). In the development of curricula, psychological concepts influence the choice of goals of learning, the arrangement of content, teaching methodologies, and assessment techniques. A curriculum developed from psychological perspectives considers the diversity of learners and seeks to apply pedagogical strategies that encourage their active engagement, creativity, critical thinking, and problem-solving skills.

Current research indicates that curriculum implementation will be successful only if the application of psychological concepts in education and training process is well understood. According to Mayer (2020), meaningful learning happens when instruction materials are consistent with the cognitive process involved in the learning process like attention, memory, and information processing. Also, Deci & Ryan (2020) stated that motivation and autonomy of learners play an important role in their academic performance and participation in learning activities. While it is evident that psychology plays an important role in developing and implementing a successful curriculum, many obstacles can stand in the way of doing so. Some of those barriers include diversity of learners, lack of knowledge of teachers, insufficient instructional material, big class size, strict educational policies, among others. All these issues contribute to the gap between psychological theories and actual practice (UNESCO, 2023). It follows that the knowledge of the psychology of learning is necessary in creating appropriate curriculums. The application of psychology concepts in curriculum development makes the teaching process more effective and increases learner achievement.

Application of learning psychology to curriculum development is the intentional application of principles of how learners learn from an individual's acquisition, processing, retaining, and application of knowledge to design education programs. Learning psychology brings empirical information about processes related to cognitive, emotional, and behavioural aspects of learning that are critical in ensuring that the curriculum not only focuses on what students learn but also the manner in which learning occurs. Today's curriculum development has been made aware of the need to integrate principles of cognitive development, motivational factors, memorization, and social interactions in the process of developing an effective program. Different theories related to how students learn like behaviorism, cognitivism, and constructivism inform the structure of the curriculum content and the instruction approach. For instance, behaviorism stresses the principle of repetition and

reinforcement that help in acquiring new skills whereas cognitive learning theory emphasizes the role of organizing knowledge and meaning making (Jean Piaget, 1972). Moreover, from a constructivist perspective, students learn by constructing knowledge based on their interactions in the environment and experiences (Lev Vygotsky, 1978).

Meaningful learning is achieved when the instructional material is matched with the cognitive process such as attention, working memory, and long-term memory retention, according to Mayer (2020). In the same manner, Ambrose et al. (2019) suggest that knowing how students learn can improve the effectiveness of the curriculum since learning activities will be in accordance with their cognitive and motivational preparedness. Psychological principles serve as guiding factors in developing the curriculum in terms of setting learning goals, organizing content, selecting teaching procedures, and evaluating the performance of the learners. As stated by Sweller (2020), curricula designed based on cognitive load theory minimize the cognitive overload of the learners, resulting in better comprehension and retention.

APPLICATION OF LEARNING PSYCHOLOGY IN CURRICULUM DEVELOPMENT

Learning Psychology forms the basis of effective curricula development by offering an understanding of how learners acquire, internalize and utilize information. The implementation of Learning Psychology ensures that curricular development and learning are aligned with learners' psychological needs for better outcomes.

1. Learner-Centered Approach to Curricula Development

Learner-centered approach to curricula development refers to a way of learning where the learner is viewed as the core element in the process of learning. This curriculum is based on the constructivist model of learning, which states that the process of learning involves constructing knowledge actively, instead of passively receiving it (Lev Vygotsky, 1978; Bruner, 1996). When applying the learner-centered approach in curriculum development, the teacher's role changes from being an information transmitter to a learning facilitator, allowing the learners to explore and inquire and solve problems independently or collaboratively. This method promotes critical thinking, creativity, and problem-solving skills that will be crucial for survival in the 21st century. According to research findings, learner-centered approaches are associated with improved academic performance and learner motivation. As noted by Hattie (2023), engagement rates among learners are significantly high in classes that allow the learners some degree of autonomy and active participation in learning. Similar findings are reported by Doyle (2021), who observes that learner-centered approaches are linked with increased deep understanding since students are expected to relate the new knowledge to their past experiences. Psychologically, learner-centered curriculum models recognize that different individuals have different levels. This is especially important in heterogeneous classes where there are differences in the level of preparation and prior knowledge of the learners. Additionally, learner-centered methods promote intrinsic motivation, which is sustainable compared to extrinsic motivation. As per the Self-Determination Theory by Deci & Ryan (2020), learners are likely to be motivated if they feel autonomy, competence, and connectedness.

2. Activity-Based Learning Approaches

Activity-Based Learning refers to the teaching process whereby learners engage in various activities such as tasks, experiments, debates, and real-world problem-solving exercises. The teaching method is well informed by the concept of experiential learning which suggests that individuals learn best when they are actively engaged in meaningful experiences. On a psychological basis, activity-based learning is associated with the theory of constructivism which asserts that knowledge is constructed through engagement with the environment. As noted by John Dewey, educational learning is based on experience, and individuals learn best through engagement in practical tasks as opposed to lectures.

Various studies have shown the benefits of activity-based learning in comprehension and retention. According to Prince (2021), active learning methods play a great role in improving the performance of students relative to traditional lectures. This can be attributed to the fact that activity-based learning facilitates the use of several cognitive functions such as observation, analysis, and reflection. Activity-based learning affects the choice of instructional methods, learning resources, and evaluation techniques in curriculum design. Curriculums are designed to ensure that not only theoretical knowledge is considered but also activities like group work, experiments, simulation, and fieldwork. From the psychological point of view, ABL motivates learners and helps them concentrate. Being involved in some activity, learners are more focused and tend to remember things for longer. Social learning becomes possible in this process as learners work together, improving their interaction skills. Moreover, activity-based learning caters to various types of learners, from visual to auditory and kinesthetic.

3. Differentiated Instruction

Differentiated instructions are an instructional approach that involves adapting instruction, curriculum content, and assessment to cater to the unique requirements of learners. It operates on the premise that learners vary significantly in terms of readiness, interests, and learning profiles. According to Tomlinson (2020), differentiated instructions are not one-time strategies, rather a flexible model that gives instructors room to tailor their instructions to learners' needs by making changes in content, process, and product. This form of instruction is meant to guarantee meaningful instruction for all learners irrespective of their abilities. As a discipline, the psychology that underpins differentiated instructions revolves around theories of cognitive development and individual differences. The fact that learners vary in how they learn and perceive learning materials means that such differences need to be considered when designing the curriculum. Jean Piaget noted that learners go through distinct stages in their cognitive development; this point has to be factored in when instructing students. Studies show that differentiated instructions lead to higher student achievement. Subban (2021) reveals that the achievement of learners in differentiated classrooms is enhanced by their motivation levels. Differentiation plays a role in developing an effective curriculum that incorporates the use of adaptable goals, diverse teaching materials, and a variety of evaluation techniques. Educators are advised to employ such practices as grouping, scaffolding, and leveled assignments. The psychological benefit of differentiated instruction is that it ensures emotional comfort for students by avoiding the feelings of frustration on the part of underachievers and boredom for the high achievers.

4. Use of Feedback and Reinforcement

It is crucial for psychologists involved in curriculum development to understand the concept of feedback and reinforcement as effective learning and performance motivators. The former refers to the provision of information regarding learner performance, while the latter is a consequence that encourages a particular behavior or makes its repetition more likely. Behaviorism strongly advocates for the application of reinforcement in the process of learning. According to B.F. Skinner, there are two types of reinforcement: positive (that promotes desired behavior) and negative (that discourages undesired behavior). Current research stresses the significance of feedback for learning effectiveness. For instance, Hattie and Timperley (2021) argue that among all factors affecting learning, feedback is the most powerful one when it is timely, constructive, and specific.

Feedback is an essential element within curriculum development, and it is embedded in all forms of assessments, class activities, and instruction. Formative assessment serves as an important strategy for ensuring there is continuous feedback that assists in shaping teaching and learning. In psychological terms, the use of reinforcement and feedback increases motivation through making learners feel successful in what they do. Motivation in the form of praise and other positive reinforcements makes students more active, whereas feedback contributes to the development of learner self-regulation. Nevertheless, poorly designed feedback reduces motivation and affects learning.

CHALLENGES OF APPLYING PSYCHOLOGY OF LEARNING TO CURRICULUM DEVELOPMENT

It is therefore crucial to ensure that psychological theories of learning are incorporated in curriculum development process. Nevertheless, despite the significance of the theory in curriculum development, there are certain difficulties associated with its implementation into education systems, thus resulting in a gap between theory and practical application, including such problems as:

1. Diversity of Learners

Another consistent problem in using the psychology of learning in developing a curriculum is the diversity of learners. There is a wide range of differences between learners in terms of cognitive capability, emotional maturity, motivation, background knowledge, preferred learning methods, and socio-economic status. These differences play a key role in determining how learners receive, internalize, and memorize information, thus rendering an equal approach to curricular content challenging. Psychological learning theories stress that the learning process must match the developmental and cognitive levels of learners. Jean Piaget, for instance, believed that learners undergo different cognitive development stages, implying that learners cannot have the same capacity for abstraction at once. On the other hand, the constructivist learning approach asserts that learners construct their own understanding based on past experiences, which differ greatly from one person to another (Lev Vygotsky, 1978).

Curriculum development in real-classroom environments, on the other hand, often involves developing standardized curricula based on what can be called the 'average' learner. Such curricula create discrepancies between learner capability and expected performance, whereby high-performing learners become bored by lack of adequate stimulation, and

underperforming learners become frustrated and disengaged. Research carried out in recent years has shown that the differences between learners greatly influence their motivation and academic achievement. As noted by Anyichie and Butler (2023), learners vary in terms of how much they get motivated depending on their contexts and personalities. Learners with different levels of emotional well-being, like anxiety, trauma, and low self-esteem, especially among displaced learners, are affected psychologically through diminished attention, memory, and consequently, performance. If not for any other reason, such learners should be subjected to differentiation techniques in order to cater for their unique requirements in education. Lastly, there is the challenge that large classes render identification of individual learner needs difficult to accommodate.

2. Insufficient Teacher Training

One of the other major issues in the implementation of principles of learning in the development of curriculum is the insufficient training of teachers in the subject of educational psychology. Educators are very important in the implementation of the curriculum, but most do not have enough information about theories in the field and how they can be applied to classroom instruction. In essence, educational psychology gives useful information on how students learn, think and behave. Different theories like behaviorism, cognitivism and constructivism help formulate successful teaching techniques**.**

New findings reveal that most teacher education programs have inadequate exposure when it comes to the practical application of psychology in instructional practice. According to Setiawan et al., there is a huge difference between having theoretical knowledge about educational psychology and applying it effectively in the classroom. Though teachers have an idea about the theories of motivation and reinforcement, they lack the skills necessary for incorporating them into actual instructional practice. Theories associated with behaviorism like reinforcement and feedback, for instance, may not be consistently applied due to insufficient training, making them less effective in molding the behavior of learners. Constructivist theories emphasizing active learning on the part of the learner are mostly abandoned and replaced by lectures because of inadequate training. Continuous training, which could help instructors update their knowledge about new approaches in psychology like trauma-informed instruction and differentiated instruction, is inadequate in most education systems.However, things tend to be worse for regions affected by crises. Teachers have been known to lack adequate pedagogic or psychological knowledge due to the urgent need for education in such areas. Therefore, the inability to detect the learners' issues in regard to emotion and cognition makes the curricula less effective. OECD (2023) notes that the most consistent predictor of a successful curriculum includes the quality and training of teachers.

3. Limited Resources and Materials

Lack of resources and teaching materials presents a considerable problem in terms of implementing psychology of learning in curriculum planning and design. Psychology stresses that there should be a rich environment of interaction and well-developed structure when it comes to education. Yet, this involves having sufficient teaching aids, technology, and learning infrastructure. For instance, constructivist psychology of learning implies using experiential or activity-based learning. This, in turn, presupposes having laboratory equipment, various visual aids, and computer technology. Yet, in many cases, especially in less economically developed or humanitarian contexts, there is simply a lack of required

resources. As per UNESCO (2022), limited resources remain a crucial obstacle to quality education in developing countries. It becomes impossible to organize learner-focused instruction in such conditions. Due to this, teachers are forced to stick to lecturing and memory-based learning which goes against psychological ideas of how effective instruction should take place. Limited access to resources makes it difficult to implement differentiated instruction. Psychology requires a variety of learning materials in order to meet diverse needs of learners. Yet, due to limited resources, teachers can only use one book or teaching strategy.

Additionally, inadequate technology constrains the implementation of media-based learning resources, which have been shown to increase attention, memory, and motivation. The cognitive theory of multimedia learning by Mayer stresses that both visuals and audio aid comprehension, but this is not possible without proper infrastructure (Mayer, 2020). Moreover, large classes with restricted resources do not offer chances for interactive learning and feedback. Individualized attention and feedback from instructors cannot be offered because of insufficient resources.

4. Big Class Size

The size of classes is a great barrier to the implementation of psychological principles in curriculum planning. Psychological theories of learning require personalized teaching and feedback, which become challenging to implement in big classes. In cases where classes are too large, teachers may find it difficult to keep track of the learning process of each student, detect emotional and cognitive issues, and give feedback. As a result, formative assessments and reinforcement measures, which play a vital role in behaviorist theories of learning (B.F. Skinner), fail to achieve their intended purpose. According to OECD (2023), small class sizes can help improve student performance through increased interaction and personalized teaching. However, in most developing countries and emergencies, class sizes tend to be bigger than recommended sizes.

Classroom size is also a barrier to engaging in active learning processes that involve group work, discussion, and collaborative problem solving. Active learning methods are significant components of constructivism, an instructional theory based on the idea that knowledge acquisition is fundamentally social (Lev Vygotsky). Emotional support is also difficult to provide in large classes. The teacher will not have time to recognize students who might be suffering from stress, trauma, and lack of self-confidence; therefore, their academic achievements and motivation will suffer accordingly.

5. Policy and Curriculum Rigidity

Policy and curriculum rigidity is one more critical issue associated with the application of the psychology of learning when developing curricula. Educational policies in many countries imply strict rules, which prescribe certain curricula and do not leave much space for adjustments according to the needs of learners. Flexibility and adaptation of instructional activities are crucial from the viewpoint of psychological theories of learning. Nevertheless, rigid curricula do not pay enough attention to learner-centered aspects. In the opinion of UNESCO (2023), rigidity of the curricular system restricts teachers' efforts aimed at adapting to the cognitive and affective requirements of their students. Moreover, assessment systems tend to be rigid as well, thus promoting memorizing things and passing exams. As a result, creative, constructivist, and experiential approaches cannot be used extensively. Rigid

curriculums reduce innovative activity of teachers who need to follow the prescribed scheme of work and teaching pace.

STRATEGIES TO ENSURE THE SUCCESFUL USE OF THE PSYCHOLOGY OF LEARNING IN THE CURRICULUM PROCESS

The psychology of learning is very important in curriculum development since it helps shape how instruction is offered based on the learning needs of the learners. It calls for certain strategies that should be put into consideration when using psychology of learning, including:

1. Continuous Professional Development of Teachers

Professional development of teachers is one of the most important means of incorporating learning psychology into the process of curriculum development. In the first place, teachers act as the implementers of curricular content. The application of educational psychology in classroom teaching practices highly depends on whether teachers possess knowledge of relevant psychological theories. Consequently, ongoing professional development is necessary for bridging the gap between psychological theories and learning. Psychology of learning focuses on the importance of cognitive, affective and motivational aspects in relation to students' performance and academic success. Without ongoing professional development of teachers, the latter will not possess current knowledge of learners' acquisition and retention of content. In high-performing education systems, as noted by OECD (2023), teachers receive significant investments into their professional development in terms of instructional psychology and learner-centered approaches. Continuous professional development allows teachers to become familiar with the main theories of learning including behaviourism, cognitivism, and constructivism. For instance, knowledge of reinforcement theory proposed by B.F. Skinner allows the use of rewards to motivate learners. Besides, knowledge of Jean Piaget's theory of cognitive development.

According to recent research, sustained professional learning plays a key role in enhancing instructional practices and outcomes for students. In their study, Darling-Hammond et al. (2020) discovered that the implementation of learner-centered instruction by teachers is positively influenced by engaging in sustained professional learning. The reason for that is the fact that such kind of learning contributes to designing psychologically effective environments for learning. Furthermore, teachers are helped by the process of professional learning in coping with the diversity of learners, their psychological problems, and motivations.

2. Application of Modern Instructional Strategies

Application of modern instructional strategies becomes very important for embedding the psychology of learning in curriculum development processes. Modern instructional strategies are created in a way that they can be well-coordinated with the processes of learners' thinking and their information processing abilities. It makes the application of modern instructional methods much more appropriate compared to traditional methods based on mechanical repetition. Psychology of learning stresses the necessity of the active involvement of learners, their meaningful participation, and socialization. Thus, constructivist theory backed up by the ideas of Lev Vygotsky focuses on socialized learning.

Among modern instructional strategies, there are problem-based learning, inquiry-based learning, cooperative learning, blended learning, and the approach of flipped classrooms. Research indicates that active learning strategies significantly improve retention and academic performance. Freeman et al. (2019) found that students in active learning environments outperform those in traditional lecture-based classrooms across multiple disciplines. This is because active learning enhances cognitive engagement and deep processing of information. In addition, modern instructional strategies support motivation and emotional engagement. Self-determination theory (Deci & Ryan, 2020) suggests that learners are more motivated when they experience autonomy, competence, and relatedness, all of which are supported by interactive teaching methods. In curriculum development, integrating modern instructional strategies ensures that learning objectives are achieved through meaningful engagement rather than memorization. It also allows for differentiation and inclusivity, accommodating diverse learner needs.

3. Curriculum Flexibility and Adaptation

Curriculum flexibility and adaptability are key tools for incorporating the psychology of learning in curriculum design. The flexibility of the curriculum enables teachers to tailor their lessons, teaching methodologies, and assessment techniques according to the students' requirements and capabilities. Psychological principles indicate that each person learns differently. Jean Piaget observed that the learners advance through various stages of development, and constructivism holds that the learner constructs knowledge from prior experiences. Therefore, flexibility is essential within the curriculum framework. Inflexible curricula hinder teachers from responding to the psychological requirements of learners, which include emotions, cognition, and socio-psychological aspects. UNESCO (2023) notes that flexible curricula are crucial in enhancing education quality in diverse and challenging environments. Flexible curricula enable teachers to alter the pace of delivery, the depth of knowledge being taught, as well as the teaching strategies in line with classroom dynamics. Furthermore, flexible curricula improve motivation and participation among learners. Learners are more motivated when the curriculum content is applicable to them and their lives.

4. Enhancing Utilization of Educational Research

Enhancement of educational research utilization is one of the strategies through which the psychology of learning can be integrated into curriculum development. This strategy will help integrate information regarding learners' thoughts, behaviors, and learning process. There is plenty of research conducted on education, yet there remains a huge gap between such research and its application in practice. As per Hattie (2023), evidence-based practices have proven to positively influence students' academic performance only if effectively used by practitioners.

Educational research in psychology of learning can offer valuable knowledge about motivation, memory, cognitive load, and emotional regulation. Cognitive load theory (Sweller, 2020), in particular, can be instrumental in developing an effective curriculum. The main focus of this theory is placing less emphasis on the working memory and structuring content in a manner that makes it easier for learners to process and comprehend information. Nevertheless, in most education systems, research findings are poorly utilized due to multiple factors. Strengthening research utilization should involve collaboration between researchers, policy makers, and educators.

5. Better Learning Environment and Resources

A better learning environment and sufficient resources are indispensable prerequisites for successful incorporation of the psychology of learning into the process of curriculum development. According to psychological theories, learning is impacted by both cognitive and environmental aspects. According to UNESCO (2022), an environment that is safe, conducive, and resourceful greatly contributes to student engagement and performance. The environmental conditions like classroom layout, instructional tools, and emotional security directly influence students' motivation and cognition.

Constructivist theory underscores the significance of interactive learning environments that allow for exploration, experimentation, and collaboration among students. However, in most cases, scarcity of resources hinders the application of these approaches. Furthermore, a conducive emotional environment ensures psychological well-being among learners, which plays a vital role in learning. Stress, anxiety, and fear impede concentration and memory, hence hampering learning outcomes.

Conclusion

In summary, the current study has looked at the incorporation of learning psychology into curriculum development and shown that learning psychological principles are very important in teaching, learning and implementation of the curriculum. It is evident from the study that concepts such as behaviorism, cognitivism and constructivism are key to the effective acquisition and processing of knowledge. These theories have played a significant role in shaping curricula through the provision of instruction methods that are learner-centered, activity-oriented and engaging.

From this study, it is evident that the application of learning psychological principles in curriculum development increases motivation, learner engagement, critical thinking, creativity, retention and performance. Learning concepts such as learner-centered curriculum development, differentiated learning, activity-based approach and provision of feedback and reinforcement lead to effective learning due to their alignment with learners' cognitive, emotional and behavioral attributes. Moreover, it is clear that curriculum implementation requires adequate knowledge about the diversity of learners, motivational factors, emotional development and individual differences.

In spite of the above, there were some hindrances associated with the use of psychology of learning in the development of curriculums. These barriers included learner differences, lack of teacher education in educational psychology, few instructional materials, big classes, inflexible curriculum policies, and environmental barriers. The barriers hinder teachers from applying the psychologically informed instruction techniques, which affect negatively the quality of learning process.

Despite the above problems, it was evident from the study that psychology of learning is important in the development of effective curriculums. When a curriculum is designed on psychological grounds, it is bound to cater for the educational needs of learners, enhance effective instruction, and lead to quality education.

Recommendations

On the basis of findings from this study, the following recommendations were made:

1. **Enhancing Teacher Training and Professional Development:** In teacher education programs, there is a need for more emphasis on the importance of educational psychology and how it can be applied in curriculum implementation. The provision of in-service training and workshops to enhance knowledge about contemporary and psychologically based methods of teaching is highly recommended**.**
2. **Supporting Learner-Centered Curriculum Practices:** There is need for curriculum developers and educators to embrace learner-centered methodologies of instruction through which learners are actively involved, creative, collaborative, and critical thinkers.
3. **Differentiation in Curriculum Delivery:** Teachers need to incorporate methods of differentiation in their classroom practices that consider individual learner characteristics.
4. **Adopting Activity-Based Methods of Instruction:** School management needs to encourage activity-based methods of instruction in schools.
5. **Improving Feedback and Reinforcement Procedures:** It is recommended that feedback should be provided by the teachers on an ongoing basis for the students. In addition, positive reinforcement procedures should be utilized to encourage better performances.
6. **Provision of Necessary Learning Materials and Environments:** Governments and education officials should ensure that sufficient instructional materials and facilities are made available in order to promote psychologically-based instruction and learning.
7. **Reduction in Class Size:** Class sizes should be minimized to allow teachers to provide individual attention to students and monitor their performances**.**
8. **Flexible Implementation of Curriculum:** There should be sufficient flexibility in curriculum implementation such that teachers can modify their teaching methods according to the requirements of the learners.
9. **Increased Use of Educational Psychology Research:** More emphasis should be placed on applying research findings related to education psychology to develop curricula and instruction strategies.
10. **Provision of Psychosocial Services:** It is necessary for schools to improve their psychosocial services systems in order to assist learners facing various psychological challenges.

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