

The Onion Pedagogy: Towards a Scientific Understanding of Individualized Learning

Manas Khan^{1*}, Dr. Laxmiram Gope²

¹Research Scholar, Department of Education, Sidho-Kanho-Birsha University, West Bengal, India

²Assistant Professor, Department of Education, Sidho-Kanho-Birsha University, West Bengal, India

DOI: <https://doi.org/10.36348/jaep.2026.v10i04.001>

Received: 04.02.2026 | Accepted: 30.03.2026 | Published: 03.04.2026

*Corresponding author: Manas Khan

Research Scholar, Department of Education, Sidho-Kanho-Birsha University, West Bengal, India

Abstract

One Onion - Many Cuts. Just like an onion can be cut into rings, slices, cubes, or strips, learning can be designed in different ways to suit the needs of all learners. This is more scientific because one size cannot be suitable for all i.e., learning through individualized process and it gives recognition of individuality among the learners. Individualized instructional strategies have emerged as an emerging and necessary pedagogical response to learner in contemporary classrooms. However, its theoretical articulation often remains complex or abstract for practitioners. This paper introduces 'The Onion Pedagogy' as a metaphorically grounded yet epistemologically structured framework to conceptualize differentiated instruction based on the need and aspirations of the learner. Just as an onion can be cut into rings, slices, cubes, or strips while retaining its essential core, learning objectives remain constant while instructional strategies vary according to learner needs. The 'core' represents epistemic understanding; the 'layers' characterize gradations of conceptual depth; and the 'cuts' represent individualized pedagogical strategies. Drawing from modern psychological theories such as Constructivism, Social constructivism, Universal Design for Learning (UDL), and Personalized learning theory, those framework and model offer a structured, holistic and inclusive approach to child-centric pedagogy. The teachers and educators are seen as a 'seasoned chef' who adopt pedagogical method based on need of the children. The paper highlights the theoretical framework, classroom practices and implications for teacher education, and understand the alignment with India's National Education Policy (2020). The Onion Pedagogy provides an inclusive methodological framework that not only promotes equity and equality but also focus on the learner's diversity.

Keywords: Inclusive Pedagogy, Onion Pedagogy, Learner-Centred Approach, Personalised Learning, Instructional Strategies.

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

1. INTRODUCTION

One Onion - Many Cuts. Just like an onion can be cut into rings, slices, cubes, or strips, learning can be designed in different ways to suit the needs of all learners. This is more scientific because one size cannot be suitable for all i.e., learning through individualized process and it gives recognition of individuality among the learners. Rather, our aim ought to unfold the same core and distribute the kernel with different cuts and pieces resembling different pathways to facilitate learning. So, here we conceive of the process much like an onion to imply epistemology as the learning objective, which can be achieved if methodological novelty is deployed, whereby the technique of differential cuts is applied. For instance, each cut is intended to produce a unique taste, just like each instructional strategy is to create a different learning experience. In simplifying, if

the learning experiences are offered in different forms, dimensions, facts, figures, and thoughts, the learners will find themselves within the same educational ecosystem. Some children need small chunks, scaffolded steps, thin slices, simplified or previewed content; some others may like to relish circles or spirals, hands-on, creative, or collaborative tasks. Here, the cuts symbolically represent differentiated strategies with delicately calibrated tasks. The goal stays the same. Sometimes it is through visual supports and sometimes it can be open-house activities. Thus, the route may change, and in doing so, decisions regarding inquiry pathways are to be based on learner needs. Similarly, the tutorial experience of teachers can aid in guiding students who may face challenges from time to time. Here, the teacher's role resembles that of a seasoned chef to guide practice by innovation and improvisation. A chef often chooses the cut and chop

onion based on the dish to be prepared (Mehra, 2025). Moreover, an onion may be used to garnish the salad. So, it all depends on how a teacher chooses distinct strategies. As such, there could be many possibilities based on the context, the requirements of the students, their ability, and readiness. Differentiation, however, does not mean discrimination among students or to treat them in an altogether different manner but to curve out a learning profile which is more learner-centric and efficacious. It means multiple ways to guide practice while the underlying purpose remains to navigate towards the same understanding. 'The onion stays the same - but the cut changes to bring out the best flavour in every piece.' It means different approaches to reach the same core understanding through sophisticated pedagogical differentiation, whereby the onion stays the same, but its form changes to best serve the learner.

1.1. Understanding of pedagogy:

Have you ever wondered what makes a teacher and teaching effective? It is not about the subject knowledge or domain knowledge. Educators often understand the significance of pedagogy of pedagogy when it is comes to implement strategies and methods. So, what is pedagogy? There is a difference between normal teaching of a subject and using pedagogy in teaching (Shulman, 2000). In simple term, pedagogy is how educators and teachers approach instructional strategies and learning style, use curriculum and plan to achieve the objectives and aims of a course and education. Pedagogy includes teaching style, maxims of teaching, principles, strategies, learning activities, assessments and evaluations. Effective pedagogical innervations in educational process primarily focuses on learners' cognitive development, physical development, emotional development and social development. Pedagogy is not based solely on science but also includes the art of teaching (Bixler, 2025).

Pedagogy in its broader sense, it is not only a method or style of teaching but it also a process of human becoming. It echoes with the thought of Gautama Buddha '*Atmo Dipo Bhavo*' (be a light unto yourself). According to this Buddhist dictum, pedagogy means a transformative process to develop self- realization and ethical consciousness (Patra & Banerjee, 2025). The

contemporary classroom, especially in the context of generation-z learners faces many challenges such as digital dependency, emotional vulnerability, shortened attention and motivational spans. So, our current pedagogical strategies and teaching style fails to address such kind of diversity of the students. In this situation The Onion Pedagogy emerges as a methodological framework that understand the diversified need of the students (Shirazian *et al.*, 2025).

1.1.1. Different types of pedagogical theorems:

The evolution of pedagogy embodies various philosophical and psychological perspective that have shaped and influenced classroom practices over the time. Behaviourism sees learning as observable behaviour that can be shaped by stimulus-response mechanisms and reinforcement. It emphasizes well-structured teaching, instruction, practice and outcomes (Muhja & Wijaya, 2024). On the others hands Constructivism, influenced by Jean Piaget, claims that learners actively construct knowledge via interactions with the environment, highlighting cognitive development and experiential learning (Chand, 2023). Lev Vygotsky's theory of social constructivism understands how language, culture and social interaction affect learning in social context. The idea of the Zone of Proximal Development (ZPD) emphasizes the scaffolding (Shabani, 2016). Humanistic learning theory, influenced by great thinker Carl Rogers, places the learner at the centers, emphasizing autonomy, self-actualization, and emotional well-being (Winarko & Budiwati, 2024). Contemporary approaches such as Universal Design for Learning (UDL) advocate multiple means of representation, engagement, and expression to address learner variability. Personalized Learning education also takes into account each student's interests and readiness (Almeqdad *et al.*, 2023).

The Onion Pedagogy combines these concepts by maintaining a stable epistemic core while allowing multiple types of instructional 'cuts.' It incorporates behavioural pattens, constructivist engagement, social and emotional collaboration and inclusive design into one flexible and coherent pedagogical framework (Esser-Noethlichs *et al.*, 2024).

1.1.2. Onion pedagogy: What, why, how and when?

The Onion Pedagogy



Figure 1: The Conceptual Understanding of Onion Pedagogy

Onion Pedagogy serves as a metaphor and scientifically designed framework that give importance on individualised learning. It uses an onion’s structure to illustrate the how teaching-learning process work in inclusive manners. The core signifies the fundamental and primary aims of educational process including teaching-learning that unchanged and same for every individual. The layers represent the many levels of conceptual depth, from basic understanding to higher-order thinking. The cuts show several ways to teaching or instructional strategies like group discussion, project work, debate, digital engagement, or working together on assignment (Parmar, 2025). The learning goal remains the same but the way it is taught changes according to the students’ needs, readiness, and interests.

Onion Pedagogy is necessary since we know that modern classrooms are not all the same. Learners differ from each other in cognitive style, socio-cultural background, motivation, and pace of learning (Musundire, 2025). A uniform strategy generally marginalizes many students. This framework makes sure that the qualities of the learners and the design of the lesson match very well. Practically, teachers first identify the core objective, then design layered content, and finally select appropriate pedagogical cuts. This onion pedagogical approach is particularly significant in inclusive classrooms and correlated with the core vision of the National Education Policy-2020, which emphasizes flexibility in learning, multicultural classroom and competency-based education.

1.2. Components of Onion Pedagogy:

The Onion Pedagogy has three interrelated and interconnected components such as Core, Layers and Cuts. These parts work together to make a scientific and

adaptable foundation for personalized and inclusive learning.

The Core (Epistemic Foundation):

The core of the Onion Pedagogy characterizes the important learning objective or fundamental idea that all students need to be understood in effective way. It is the part of instructional that unchanged and same for every learner. Every learner interacts with the same epistemic truth, regardless of their skill, background, or learning style. The core maintains the academic integrity and quality, followed by the curriculum, which helps avoid standards dilution while promoting flexibility in content delivery in the classroom.

The Layers (Gradation of Understanding):

Knowledge grows in levels of difficulty, just like the layers of an onion. The outer layers stand for basic understanding and factual knowledge, while the inner layers stand for greater conceptual understanding, critical thinking, application, and synthesis. This layered framework recognizes that learners progress through stages of cognitive engagement at different paces. It allows teachers to change the way they teach based on readiness levels of the students without changing the core objectives.

The Cuts (Instructional Strategies):

Cuts are the several ways that teachers utilize to teach. Learning experiences can be planned in many ways, just like you can cut an onion into rings, cubes, or strips. These ways include lectures, conversations, projects, digital tools, hands-on activities, peer learning, or reflective exercises. The cut option relies on the learner’s needs, the classroom setting, and the teaching goals.

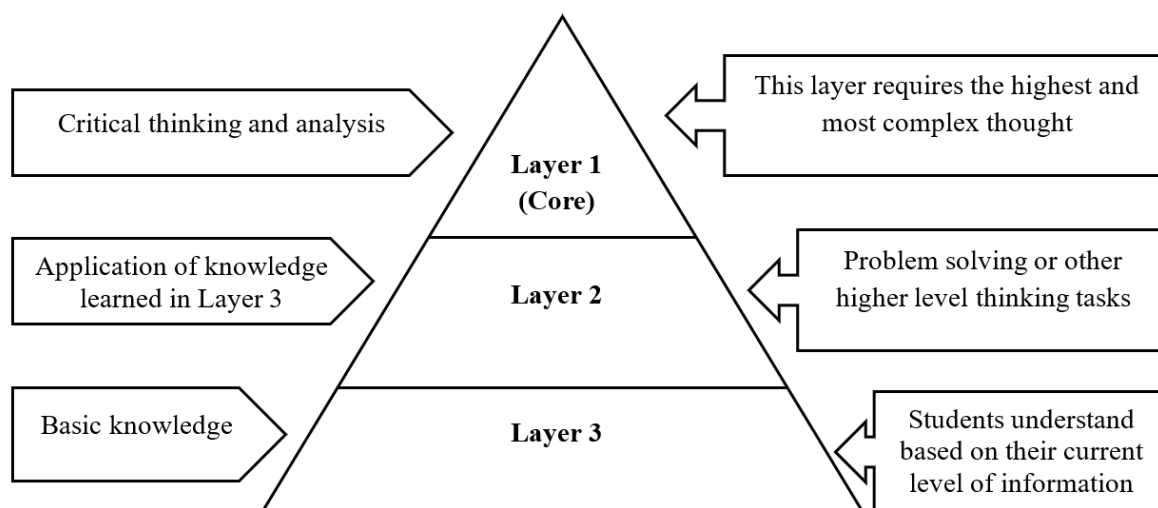


Figure 2: Understanding the Layered Concept of Onion Pedagogy

This pedagogical model emphasizes the connection between students’ diversified need and teaching methods. It’s means through this innovative,

cultural laden pedagogy researchers showed that it is very much important in our day-to-day life for imbibing, acquiring, Knowing and understanding. When

instructional strategies meet with students' cognitive, emotional and cultural context learning becomes more effective and meaningful. Onion pedagogy developed the sense of ownness among the learner and they are able to learn with experiences.

1.3. Research questions:

- a) How far onion pedagogy helps us to understand the individual learners?

1.4. Objectives of the Study:

- a) To understand the important the onion pedagogy for individualized learning and learners

1.5. Rationale of the study:

Keeping the above entitle and objective of the study researchers justified the need and significance of the study in the below aspects and during the conducted the review work it was showed that this juncture pedagogy became game changer in the educational paradigm, because by pedagogy we be and becoming. Here researchers enumerated the points and signified it with the title.

- a) This pedagogical theory helps us to the learner's hidden potentiality.
- b) Through this paper we understand the diversified need and interest of the 21st century students.
- c) This study also helps us to know the pedagogical issue in our traditional education system.
- d) This theory also critically analysis the current teacher education programme.
- e) Through the help of this pedagogical theory, we will develop an inclusive learning setup which foster the doctrine of Education for all for the mainstreaming within the society.

2. METHODOLOGY

2.1. Nature of the study:

This study is exploratory in nature, basically researchers analysed the generation-z learners and their learning strategies with context with learning experiences.

2.2. Sources of the data:

In this study researchers use various research papers, articles, government reports and documents. Researchers not only collect data from these sources but also interviewed with generation-z students with their diversified need and demand.

2.3. Methods of data collection and analysis:

Researchers interpreted and analysis the data through document analysis and also researchers use field experience related to the concern problem.

3. OBJECTIVES-WISE DATA ANALYSIS

Objective 1: To understand the important the onion pedagogy for individualized learning and learners

The objective-wise data analysis was conducted through document analysis and classroom observations. The findings are summarised according to the objective of the study.

The findings revealed that students are basically differ from each other in various manners like motivation, interest, attentions, readiness, socio-cultural status and emotional disposition. Observations of Generations-Z learners shows a preference for collaborative, multimodal, interactive and technology-assisted learning environments. The Onion Pedagogy framework accommodates these variations by framing learning as layered and flexible. The 'core' confirms uniform learning outcomes, while the 'layers' allow conceptual depth. The 'cuts' (instructional strategies) allow educators to adapt teaching methods such as place-based learning, context cum content-based learning, project-based learning, audio-visual aids, storytelling and digital devices and tools according to students' recruitments. This pedagogical model helps teachers to identify hidden capabilities and learning preferences without negotiating academic standards. The analysis conclude that Onion Pedagogy supports inclusive teaching-learning practices by offering multiple opportunity to leaning. Instead of restricting students to a single and specific mode of instruction, this pedagogical framework encourages different pathways. This pedagogical model aligns with inclusive frameworks such as Universal Design for Learning (UDL), which eliminate barriers of learning by providing multiple means of engagement, representation, and action fostering inclusive learning environments. This layered instructional model helps students with different abilities including slow and advanced learners.

The framework aligns with competency-based, adaptable, flexible and equitable especially those highlighted in the National Education Policy (2020). This framework is learner-centric, immersive, and flexible which helps personalization and all-round development. Overall, Onion Pedagogy offers a systematic, structure and inclusive approach to learn on your own.

4. DISCUSSION

The Onion Pedagogy offers a structured but flexible framework that connects metaphor and methodology in contemporary educational system. Many pedagogical theories stress on learner-centered approaches but their application in real life remains abstract. The onion pedagogy simplifies the complex concepts and ideas without reducing the theoretical depth. The model separates the core (epistemic foundation), layers (levels of conceptual understanding), and cuts (instructional strategies) so that the learning

objectives remains the same while the teaching methods change based on the needs and interests of the students. One of the major strengths of Onion Pedagogy is that it understands that students are different from each other. In heterogeneous classrooms, particularly in the Indian context where socio-cultural, linguistic, and cognitive differences are bulging, standardized instruction often result in disengagement or exclusion. The Onion pedagogical model encourages ‘goodness of fit’ by matching teaching methods to the students’ level of readiness and interest. This pedagogical intervention enhance engagement, motivation and understanding at a deeper level. The framework also incorporates principles

from Behaviourism, Constructivism, Cognitivism, Social Constructivism, and Universal Design for Learning (UDL). Students construct knowledge in different ways (layers), and teachers taught them different ways (cuts) to get engagement, represent what they understand and express themselves in well manners. So, the teacher’s role changes from giving information to guiding students as a facilitator. The metaphor of the ‘seasoned chef’ illustrates this multifaceted responsibility and selecting appropriate pedagogical methods while maintaining the integrity of the fundamental learning objectives.

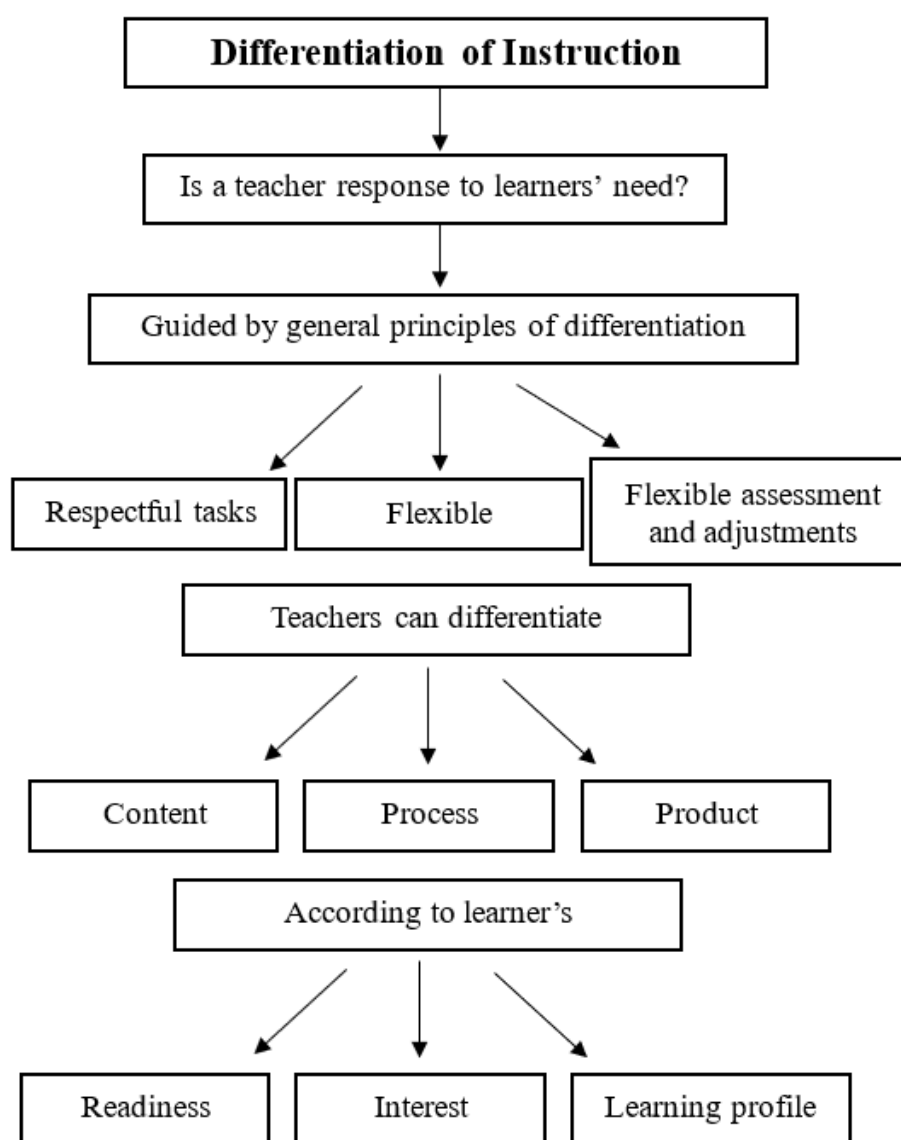


Figure 3: Conceptual Representation of Differentiation of Instruction

The Onion Pedagogical Model also fits with the vision of National Education Policy 2020, which promote flexibility, hands-on activity and inclusivity in education. It helps teachers to understand individualized learning in a more humane, equitable and scientifically.

It changes diversity from an issue into a holistic learning tool.

5. EDUCATIONAL IMPLICATION

The Onion Pedagogy has significant educational implications at multiple levels of our

educational system including classroom practice, teacher education programme, curriculum planning, and policy reform. At the classroom level, it pushes teachers to move beyond a single or specific instructional strategies to a differentiated strategies for differently abled learners. Teachers make sure that every learner understands the content or subject matter without losing inclusivity by keeping a stable epistemic core and changing the way they teach. This method is especially useful in an inclusive classroom. This pedagogical model encourages questioning, multi-level teaching methods, diversified assessment methods and reflective dialogue techniques, which help students get more involved in the education process in a meaningful way.

Onion Pedagogy shows that teacher education programs need to teach modern teachers, how to be good at diagnosing students' problems and designing lessons plan that can be changed according to the learner's ability. Teachers must be ready to do more in the classroom than just sharing the information. They also need to be able to look at the different types of learners and come up with flexible ways for them to learn. Pre-service and in-service training ought to encompass modules on differentiated instruction, Universal Design for Learning (UDL), and culturally responsive pedagogy. This would help teachers become more professionally aware so they can find a 'goodness of fit' between the needs of their students and the ways they teach.

This pedagogical concept fits well with the mission and vision of the National Education Policy 2020, which stresses flexibility, learning from different discipline, and hands-on activity. Finally, Onion Pedagogy supports the ideas of inclusivity and equality at the policy level. So, it helps make educational ecosystems that are open to everyone, focused on the learners' need, and ready for the future.

6. CONCLUSION

As we know each and every learner's ability is different and they come from different learning and cultural backgrounds, so, their process of acquiring knowledge is also not the same. In this regard one's content materials, instruction of teaching and learning environment should be according to their diverse learning needs. So that they used their highest potential of their abilities. In this context, instead of teacher centred traditional teaching strategies individual learning gets emphasis on learner centre flexible learning which also promote inclusiveness and respect individual differences. The Onion Pedagogy suggested a metaphorically perspective also theoretically rooted framework for individualized learning. Onion pedagogy links philosophical depth and classroom practicality into educational setup. By maintaining a sound epistemological core while allowing methodological flexibility, it fosters equality and equity among the students which promote excellence and understand the diversified need and interest of the students. In a juncture

of individual differences, diversity in learners and personalised learning, Onion Pedagogy stands as a pedagogically inclusive, equitable, and meaningful educational model. It identifies that students are not uniform of a standardized system. Ultimately, an effective pedagogy should be move from uniformity to diversity like the onion itself 'One whole, Many layers, Infinite possibilities.'

REFERENCES

- Almeqdad, Q. I., Alodat, A. M., Alquraan, M. F., Mohaidat, M. A., & Al-Makhzoomy, A. K. (2023). The effectiveness of universal design for learning: A systematic review of the literature and meta-analysis. *Cogent Education*, 10(1). <https://doi.org/10.1080/2331186x.2023.2218191>
- Bixler, N. (2025). What is pedagogy? Understanding teaching and learning. Hapara. <https://hapara.com/blog/what-is-pedagogy/>
- Chand, S. (2023). Constructivism in Education: Exploring the Contributions of Piaget, Vygotsky, and Bruner. *International Journal of Science and Research*, 12(7), 274-278. <https://doi.org/10.21275/SR23630021800>
- Esser-Noethlich, M., Lund, S., & Bjerke, L. (2024). 'Facilitating change from within': Investigating students' experiences of using core reflection in physical education teacher education. *Physical Education and Sport Pedagogy*, 1-15. <https://doi.org/10.1080/17408989.2024.2400069>
- Mehra, A. (2025). The Onion Pedagogy as differentiation. https://www.linkedin.com/posts/archana-mehra1979_the-onion-pedagogy-as-differentiation-just-activity-7405283682372071424-TuBS
- Muhja, Z. A., & Wijaya, M. I. (2024). Application of Behaviorist Theory Based on the Learning Experience of Students in Boarding School Environments. *Al-Hayat: Journal of Islamic Education*, 8(3), 908-922. <https://doi.org/10.35723/ajie.v8i3.689>
- Musundire, A. (2025). Understanding the research onion and its application in educational leadership and management research. In *IGI Global eBooks*, 355-384. <https://doi.org/10.4018/979-8-3693-9425-0.ch015>
- Parmar, M. (2025). *The Onion Pedagogy: Why How we teach matters as much as what we teach*. https://www.linkedin.com/posts/manish1102_education-teaching-learning-pedagogy-activity-7405330252933218304-fvNhh
- Patra, T. K., & Banerjee, M. (2025). Role of Buddhist Epistemology in shaping Reflective and Inquiry-Based Pedagogy. *International Journal of Creative Research Thoughts*, 13(7), 72-80.
- Shabani, K. (2016). Applications of Vygotsky's sociocultural approach for teachers' professional development. *Cogent Education*, 3(1), 1252177. <https://doi.org/10.1080/2331186x.2016.1252177>

- Shirazian, S., Vatanpour, M., & Guity, P. (2025). Generation Z: Learners' Profiles and Teaching Challenges. *Frontiers in dentistry*, 22, 40. <https://doi.org/10.18502/fid.v22i40.19906>
- Shulman, S. L. (2000). Teacher Development: Roles of Domain Expertise and Pedagogical Knowledge. *Journal of Applied Developmental Psychology*, 21(1), 129-135. [https://doi.org/10.1016/S0193-3973\(99\)00057-X](https://doi.org/10.1016/S0193-3973(99)00057-X)
- Winarko, B., & Budiwati, N. (2024). Humanistic Pedagogy: Approaches to enhancing individual development in modern education. *EDUTECH Journal of Education and Technology*, 8(2). <https://doi.org/10.29062/edu.v8i2.1047>