

# Learner Performance Outcomes of Indigenized Instructional Designs in Selected Elementary Competencies

1 Julius C. Estomata 2 Marivic M. Cuizon, PhD,

Email: estomatajulius08@gmail.com

1Lusong Elementary School, Cabadbaran City Division, Philippines

2Agusan Colleges Inc, Butuan City, Philippines

**Abstract:** This study examined and refined indigenized instructional designs in Edukasyon sa Pagpapakatao (ESP) and to determine their effectiveness in improving the learning performance of Indigenous Peoples (IP) learners. Specifically, it sought to compare the pretest and posttest performance of learners in Kaugaliang Pilipino, Tuntunin ng Kaligtasan, and Ligtas na Pamayanan, and to identify whether significant differences existed after the instructional intervention. A descriptive–evaluative research design was employed. The study was conducted at Lusong Elementary School, a rural and mountainous school in Cabadbaran City, Agusan del Norte, serving Manobo and Mamanwa learners. The participants consisted of sixteen (16) Grade 3 IP learners selected through intact group sampling. A researcher-developed test questionnaire focusing on least-learned ESP competencies was used and validated by experts to ensure content validity, cultural appropriateness, and alignment with the Grade 3 ESP curriculum. Data were collected through a pretest–posttest procedure following the implementation of expert-validated indigenized instructional designs. A learner perception questionnaire was also administered to support the evaluation of instructional relevance and effectiveness. Statistical analyses included mean, weighted mean, frequency, percentage, standard deviation, and paired-samples t-test. Results indicated that learners generally progressed toward higher performance levels after the intervention. However, no statistically significant differences were found between pretest and posttest scores in Kaugaliang Pilipino and Tuntunin ng Kaligtasan. In contrast, Ligtas na Pamayanan showed a statistically significant improvement, characterized by a substantial upward shift in learner performance categories. Despite these gains, no learners reached full mastery across the competencies. The study concludes that indigenized instructional designs are most effective when instructional content is closely aligned with learners’ community contexts and lived experiences, emphasizing the need for sustained and well-supported implementation to achieve mastery-level outcomes.

**Keywords:** *Indigenized Instruction, Indigenous Peoples Education, Values Education*

## INTRODUCTION

Instructional design plays a crucial role in shaping effective teaching and learning experiences, particularly in values-based subjects such as Edukasyon sa Pagpapakatao (ESP), where learners’ moral development, cultural identity, and social responsibility are central. For Indigenous learners, conventional instructional approaches often fail to reflect their cultural contexts and lived experiences, resulting in limited engagement and uneven learning outcomes. In response, indigenized instructional designs grounded in Indigenous knowledge systems, values, and community practices have been recognized as essential for promoting meaningful and culturally responsive learning (Kaya & Erdem, 2021).

Within the framework of Indigenous Peoples Education (IPED), culturally responsive pedagogy has been shown to enhance learner engagement, motivation, and academic performance by aligning instruction with learners’ cultural realities (Reyes, 2022; Raju, 2024). Local studies further support these findings, reporting improved participation and more positive learner attitudes when indigenized classroom

activities are integrated into instruction (Bastida et al., 2025; Imperial, 2024). These outcomes highlight the potential of indigenized instructional designs to bridge cultural gaps and improve learner performance, particularly in elementary competencies that emphasize values formation and community awareness.

In the Philippine context, the Department of Education institutionalized IPED through DepEd Order No. 32, s. 2015, which emphasizes respect for Indigenous knowledge systems and practices. Similarly, Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, mandates inclusivity and cultural sensitivity across the K to 12 curriculum (Ogunniyi, 2023; Baidoo-Anu et al., 2023). These policies underscore the need for instructional designs that are responsive to Indigenous learners, especially in ESP, where cultural rootedness and identity formation are integral.

Despite these policy initiatives, Indigenous learners in schools such as Lusong Elementary School continue to experience challenges related to cultural disconnection, limited access to contextualized instructional materials, and insufficient teacher preparation for indigenized teaching. These gaps are reflected in learners’ low performance in selected ESP competencies, suggesting

that existing instructional practices may not adequately address their learning needs. Consequently, there is a need to examine learner performance outcomes resulting from the implementation of indigenized instructional designs. By evaluating their effectiveness across selected elementary competencies, this study seeks to contribute empirical evidence that supports culturally grounded instruction and advances educational equity for Indigenous learners.

### Theoretical framework

This study was anchored on the Theory of Culturally Responsive Pedagogy (CRP) advanced by Geneva Gay (2000) and Gloria Ladson-Billings (1995). CRP emphasized the integration of learners' cultural backgrounds, experiences, and identities into the teaching-learning process. It posits that instruction becomes more meaningful and effective when it affirms students' cultural heritage while promoting academic competence and critical social awareness. In the context of *Edukasyon sa Pagpapakatao* (ESP), CRP provided the foundation for indigenized instructional designs that embedded indigenous knowledge systems, values, and practices into classroom instruction, thereby fostering relevance and engagement for Indigenous learners.

This framework was further supported by Constructivist Learning Theory, which held that learners actively construct knowledge by connecting new ideas to their prior experiences (Piaget, 1970; Vygotsky, 1978). Indigenized instructional designs, therefore, served as bridges between learners' cultural contexts and the formal ESP curriculum, enabling them to process values and concepts in ways that resonated with their lived realities.

Vygotsky's Sociocultural Theory posits that learning is a socially mediated process that occurs through interaction with others and is deeply influenced by culture, language, and shared activities. The theory emphasizes that knowledge is constructed within a social context, where learners acquire understanding through collaboration, dialogue, and participation in culturally meaningful practices. In this study, Sociocultural Theory provides a strong theoretical basis for the use of indigenized instructional designs in *Edukasyon sa Pagpapakatao* (ESP), as Indigenous learners are rooted in communities that value collective learning, storytelling, and tradition. By integrating indigenous knowledge systems and community-based experiences into instruction, the study aligns learning activities with learners' cultural contexts, thereby promoting meaningful engagement, cultural continuity, and improved learning outcomes.

Together, these theoretical perspectives established a strong foundation for evaluating the efficacy of indigenized instructional designs in ESP. They affirmed that culturally grounded pedagogical strategies not only enhanced learner engagement and academic performance but also validated and sustained the cultural identities of Indigenous learners, making education more inclusive and transformative.

### Methodology

This study employed a descriptive–evaluative research design to examine and refine indigenized instructional designs in *Edukasyon sa Pagpapakatao* (ESP) for Indigenous Peoples (IP) learners. The descriptive component documented existing instructional practices, learner engagement, and cultural relevance, while the evaluative component assessed the effectiveness of the indigenized designs in improving learning outcomes and learner experiences through pretest–posttest measures.

The study was conducted at Lusong Elementary School, a rural and mountainous school in Cabadbaran City, Agusan del Norte, which primarily serves Manobo and Mamanwa learners. The participants consisted of sixteen (16) Grade 3 IP learners enrolled in one intact class. Data collection involved administering a pretest to establish baseline performance, implementing expert-validated indigenized instructional designs during regular class sessions, and conducting a posttest using the same competencies. Data were quantified using descriptive score ranges and analyzed using mean, weighted mean, standard deviation, frequency, percentage, and paired-samples t-test to determine changes in learner performance and instructional effectiveness.

### Sampling Technique and Sample

An intact group sampling technique was used, as all learners belonged to the same class and section. No random selection was applied to preserve the natural classroom setting. The sample included all sixteen (16) Grade 3 learners, composed of five (5) males and eleven (11) females, representing 100% of the class population. A researcher-developed test questionnaire covering least-learned ESP competencies—*Kaugaliang Pilipino*, *Tuntunin ng Kaligtasan*, *Ligtas na Pamayanan*, and related behavior competencies served as the main instrument. Expert validation ensured content validity, cultural appropriateness, and alignment with the Grade 3 ESP curriculum. A learner perception questionnaire was also administered to gather feedback on the relevance and effectiveness of the indigenized instructional designs.

### Results and Discussions

This section presents the level of pretest and posttest performance of the Learners

Table 1 presents the distribution of learners' performance in Competency 1, based on their pretest and posttest scores. The data is categorized by percentage score ranges, with corresponding frequencies, percentages, and descriptive levels. This table highlights shifts in mastery levels before and after the instructional intervention, offering insights into learner progress and areas of improvement.

**Table 1**

*Pretest and Posttest Performance of the Learners in Competency 1 (Kaugaliang Pilipino)*

| Percentage Score Ranges | Pretest |      | Posttest |      | Descriptive Level             |
|-------------------------|---------|------|----------|------|-------------------------------|
|                         | f       | %    | f        | %    |                               |
| 96 – 100%               | 1       | 6.3  | 0        | 0    | Mastered                      |
| 86 – 95%                | 3       | 18.8 | 1        | 6.3  | Closely Approximating Mastery |
| 66 – 85%                | 12      | 75.0 | 13       | 81.3 | Moving Toward Mastery         |
| 35 – 65%                | 0       | 0    | 2        | 12.5 | Average                       |
| 15 – 34%                | 0       | 0    | 0        | 0    | Low                           |
| 5 – 14%                 | 0       | 0    | 0        | 0    | Very Low                      |
| 0 – 4%                  | 0       | 0    | 0        | 0    | Absolutely No Mastery         |
| Total                   | 16      | 100  | 16       | 100  |                               |

The highest posttest frequency is in the 66–85% score range, with 13 learners (81.3%) classified at the descriptive level “Moving Toward Mastery.” The increase in this category from 12 learners (75.0%) in the pretest to 13 in the posttest reflects a positive shift in learner competence, indicating that the intervention helped consolidate foundational understanding and skills.

The highest mean for Competency 1 was in the 66–85% range (“Moving Toward Mastery”), consistent with Almeda (2023). His study on contextualization in Benguet revealed that when teachers localized lessons using local stories, materials, and mother-tongue elements, learners demonstrated more meaningful participation. This explains why learners in Competency 1 were able to progress toward mastery. The instructional design likely drew on cultural relevance that resonated with them, fostering engagement and comprehension.

The lowest frequency in the posttest is in the 96–100% score range, where no learners (0%) achieved the “Mastered” level. This contrasts with the pretest, in which 1 learner (6.3%) reached this level. The absence of mastery-level performance on the posttest may suggest that, although learners generally improved, the instructional design or assessment conditions may not have fully supported the transition to full mastery.

This finding aligns with Miole (2024), who argued that while the IPED policy provides an enabling framework for cultural integration, classroom practices remain uneven due to limited teacher capacity and resources. Such constraints may have prevented learners from reaching full mastery despite improvements, showing that policy support alone is insufficient without consistent classroom implementation.

The overall mean, with the majority “Moving Toward Mastery,” aligns with Flores and Obod (2023). Their study on indigenized big books and activity sheets found that these materials created positive learning experiences but were constrained by variability in teacher qualifications and material availability. This explains why learners improved but did not reach the highest

mastery levels the intervention was effective in raising performance but lacked the sustained reinforcement needed for mastery.

Table 2 presents a comparison of learners' performance in Competency 2, based on their pretest and posttest scores. The data is organized by percentage score ranges, with corresponding frequencies, percentages, and descriptive levels. This table provides insight into how learners' mastery levels shifted after instruction, highlighting both improvements and areas requiring further support.

**Table 2**

*Pretest and Posttest Performance of the Learners in Competency 2 (Tuntunin ng Kaligtasan)*

| Percentage Score Ranges | Pretest |      | Posttest |      | Descriptive Level             |
|-------------------------|---------|------|----------|------|-------------------------------|
|                         | f       | %    | f        | %    |                               |
| 96 – 100%               | 0       | 0    | 0        | 0    | Mastered                      |
| 86 – 95%                | 2       | 12.5 | 3        | 18.8 | Closely Approximating Mastery |
| 66 – 85%                | 13      | 81.3 | 10       | 62.5 | Moving Toward Mastery         |
| 35 – 65%                | 1       | 6.3  | 3        | 18.8 | Average                       |
| 15 – 34%                | 0       | 0    | 0        | 0    | Low                           |
| 5 – 14%                 | 0       | 0    | 0        | 0    | Very Low                      |
| 0 – 4%                  | 0       | 0    | 0        | 0    | Absolutely No Mastery         |
| Total                   | 16      | 100  | 16       | 100  |                               |

The highest posttest frequency falls within the 66–85% score range, with 10 learners (62.5%) categorized as “Moving Toward Mastery.” Although this represents a decrease from the pretest count of 13 learners (81.3%), it remains the largest group on the posttest. This suggests that the instructional design maintained a strong core of learners progressing toward mastery, though some may have shifted to other performance bands due to varying levels of retention or assessment difficulty. The sustained dominance of this category reflects the design's capacity to support foundational understanding.

The highest mean for Competency 2 again fell within the 66–85% score range (“Moving Toward Mastery”), consistent with Guiberson and Vining (2023). Their scoping review concluded that culturally aligned strategies show promise but often lack robust evidence and require careful evaluation for cultural fit and feasibility. This supports the current finding that learners improved modestly but did not consistently reach mastery, as the intervention may not have been fully optimized for feasibility.

The lowest posttest score remains in the 96–100% range, with no learners (0%) achieving the “Mastered” level. This mirrors the pretest result, indicating that no learner reached full mastery in Competency 2. This persistent absence of mastery-level performance may point to the complexity of the competency or limitations in instructional depth.

This echoes Flores and Obod (2023), who found that logistical issues, such as printing, distribution, and

internet limitations, constrained the accessibility of indigenized materials. These constraints explain why some learners regressed to lower posttest scores, as inconsistent access to materials limited their ability to sustain gains.

The overall posttest distribution shows a more diverse performance spread: 62.5% of learners are “Moving Toward Mastery,” 18.8% are “Closely Approximating Mastery,” and 18.8% are “Average.” Compared to the pretest, which had only one learner in the “Average” category, the posttest reflects a broader range of outcomes. This general picture suggests that while the instructional design helped some learners improve, others may have plateaued or regressed slightly.

The overall mean, indicating a broad distribution of scores, supports Mkhwebane (2024). His study emphasized that lack of teacher training and resource development limits the meaningful integration of Indigenous Knowledge Systems. This explains the uneven outcomes in Competency 2, in which some learners benefited while others struggled due to gaps in teacher preparedness and resource accessibility.

Table 3 presents a comparison of learners' performance in

Competency 3, showing how their scores changed from pretest to posttest across defined percentage ranges. Each score range is associated with a descriptive level, enabling nuanced interpretation of learner progress. The table offers insight into the effectiveness of instruction and the extent to which learners moved toward mastery.

**Table 3**

Pretest and Posttest Performance of the Learners in Competency 3 (Ligtas na Pamayanan)

| Percentage Score Ranges | Pretest |      | Posttest |      | Descriptive Level             |
|-------------------------|---------|------|----------|------|-------------------------------|
|                         | f       | %    | f        | %    |                               |
| 90 – 100%               | 0       | 0    | 0        | 0    | Mastered                      |
| 80 – 95%                | 3       | 18.8 | 3        | 18.8 | Closely Approximating Mastery |
| 66 – 85%                | 9       | 56.3 | 13       | 81.3 | Moving Toward Mastery         |
| 35 – 65%                | 4       | 25   | 0        | 0    | Average                       |
| 15 – 34%                | 0       | 0    | 0        | 0    | Low                           |
| 5 – 14%                 | 0       | 0    | 0        | 0    | Very Low                      |
| 0 – 4%                  | 0       | 0    | 0        | 0    | Absolutely No Mastery         |
| Total                   | 16      | 100  | 16       | 100  |                               |

The highest posttest frequency falls within the 66–85% score range, with 13 learners (81.3%) classified as “Moving Toward Mastery.” This represents a notable increase from the pretest, in which only 9 learners (56.3%) fell within this category. The rise in this performance band suggests that the instructional intervention was particularly effective in helping learners consolidate their understanding and skills. The design likely provided sufficient scaffolding and contextual relevance, enabling learners to make meaningful progress toward mastery.

This supports Lotivio and Bercasio (2025), who demonstrated that game-based learning using indigenized materials significantly improved learners' proficiency in

science compared to conventional methods. Their findings explain why learners in Competency 3 showed marked improvement; the instructional design likely incorporated engaging, culturally relevant strategies that boosted comprehension.

The lowest posttest score is in the 96–100% range, with no learners (0%) achieving the “Mastered” level, unchanged from the pretest. This persistent absence of mastery-level performance may indicate that, although learners improved significantly, none attained the highest level of competence. This could reflect either the complexity of the competency or the need for more advanced enrichment strategies to push high-performing learners beyond the threshold of mastery.

This is consistent with Gentón and Valencia-Gentón (2025), who found that Indigenous learners benefit most from integrative approaches combining visual, kinesthetic, and verbal strategies. The absence of mastery in Competency 3 suggests that, although learners improved, they may not have received the full range of integrative reinforcement required to reach the highest level.

The overall posttest distribution shows a strong concentration in the “Moving Toward Mastery” category (81.3%), with a smaller proportion in “Closely Approximating Mastery” (18.8%). Notably, no learners remained in the “Average” category, which previously accounted for 25% of the group in the pretest. This general picture suggests a clear upward shift in performance, indicating that the instructional design was successful in elevating learners' competencies and reducing lower-level outcomes. The data reflect a cohesive and effective learning experience that supported broad learner improvement.

The overall mean, indicating that learners move out of the “Average” category, aligns with Li et al. (2023). Their meta-analysis highlighted that teacher–student relationships and culturally matched resources are strong drivers of engagement. This explains why learners in Competency 3 improved significantly: the design fostered engagement through culturally responsive practices, resulting in measurable gains in performance.

Test of the Significant Difference Between the Pretest and Posttest Performance of the Learners

Table 4 presents the results of the paired-samples t-test, which was used to determine whether there was a significant difference between learners' pretest and posttest performance.

The data indicate that the mean difference in score between the pretest and posttest for competency 1 is negative, indicating that many posttest scores are lower than pretest scores. The standard deviation is large (SD = 1.25), indicating a highly dispersed distribution of scores above the mean. However, the pretest did not extend to higher score ranges on the

posttest. The analysis yielded  $t = -1.00$  ( $p = .333$ ), which is beyond the .05 level of significance. Thus, the null hypothesis is not rejected.

The data indicate that the mean difference in score between the pretest and posttest for Competency 2 is very small, indicating that some learners showed slight gains while others experienced a decline. The standard deviation is large, reflecting a highly dispersed distribution of scores around the mean. The pretest did not sufficiently extend to higher score ranges on the posttest for all learners. The analysis yielded  $t = 0.522$  ( $p = 0.609$ ), which is beyond the .05 level of significance. Thus, the null hypothesis is not rejected.

**Table 4**

Paired Samples T-test Between The Pretest and Posttest Performances of the Learners

| Competencies Tested | Mean difference | Std. Deviation | t-value | p-value | Decision on H <sub>0</sub>   | Interpretation/Remarks |
|---------------------|-----------------|----------------|---------|---------|------------------------------|------------------------|
| Competency 1        | -.313           | 1.250          | -1.000  | .333    | Do not reject H <sub>0</sub> | Not significant        |
| Competency 2        | .125            | .957           | .522    | .609    | Do not reject H <sub>0</sub> | Not significant        |
| Competency 3        | 1.188           | 1.471          | 3.230** | .006    | Reject H <sub>0</sub>        | Significant            |

\*\*significant @  $p < .01$

The significant improvement in Competency 3 can be attributed to the strong alignment between the indigenized instructional designs and the learners' needs. Although the mean difference was relatively small, the movement of four learners to higher score ranges in the posttest demonstrated meaningful progress in disaster preparedness and community safety concepts. The contextualized and culturally relevant activities enabled learners to connect new knowledge with real-life community experiences, thereby enhancing comprehension and application

This finding is supported by Lotivio and Bercasio (2025), who found that the use of indigenized instructional materials significantly improved learners' academic performance by increasing the engagement and relevance of learning activities. Similarly, Li et al. (2023) emphasized that culturally responsive and engaging instructional practices are strong drivers of learner engagement and achievement. The statistically significant gain in Competency 3 validates that indigenized instructional designs can effectively improve learning outcomes when instructional content is closely aligned with learners' lived experiences and community realities.

**Conclusions**

Indigenized instructional designs serve as a meaningful approach to making learning more relevant and accessible in culturally diverse classroom settings. By anchoring instruction in learners' cultural and

community contexts, such designs promote engagement and support the development of foundational competencies related to values, safety, and community awareness. The study underscores that culturally grounded instruction can facilitate learning progress, particularly in competencies that are closely connected to learners' everyday experiences.

However, the conclusions also suggest that achieving higher levels of learning requires more than contextual relevance. Effective implementation of indigenized instruction depends on sustained instructional support, adequate learning resources, and teachers' capacity to translate culturally responsive materials into deep and consistent learning experiences. Without these enabling conditions, learner progress may remain incremental rather than culminating in mastery.

Overall, the study concludes that indigenized instructional designs are most effective when integrated into a comprehensive instructional framework that emphasizes teacher preparation, continuous reinforcement, and alignment between instructional goals and assessment practices. Strengthening these elements can enhance the potential of indigenized approaches to produce more equitable and meaningful learning outcomes. Teachers are encouraged to strengthen the implementation of indigenized instructional designs through sustained practice, enrichment activities, and varied assessments, while engaging in continuous professional development on culturally responsive pedagogy. Students are encouraged to actively participate in learning activities and consistently apply lessons to their community experiences to reinforce understanding. School heads are advised to support indigenized instruction by providing adequate resources, facilitating regular teacher training, and monitoring instructional alignment. Future researchers are encouraged to examine longer intervention periods, larger samples, and mixed-method approaches, with particular focus on mastery-level outcomes, teacher capacity, and resource availability to further validate the effectiveness of indigenized instructional designs.

**References**

- (1) Almeda, R. T. (2023). Contextualized instruction and learner participation in Indigenous communities of Benguet. *Journal of Indigenous Education Studies*, 5(2), 45–60.
- (2) Baidoo-Anu, D., Owusu, K. A., & Mensah, J. (2023). Cultural inclusivity in basic education curricula: Policy implications and classroom realities. *International Journal of Educational Development*, 92, 102620. <https://doi.org/10.1016/j.ijedudev.2023.102620>

022.102620

09679-3

- (3) Bastida, M. A., Cruz, J. P., & Villanueva, L. S. (2025). Teachers' experiences in implementing Indigenous Peoples Education in Philippine public schools. *Philippine Journal of Education*, 104(1), 23–39.
- (4) Flores, G. T., & Obod, E. J. (2023). Indigenized big books and activity sheets: Effects on learner engagement and comprehension. *Asia Pacific Journal of Multicultural Education*, 7(1), 66–81.
- (5) Gay, G. (2000). *Culturally responsive teaching: Theory, research, and practice*. Teachers College Press.
- (6) Gentón, M. G., & Valencia-Gentón, R. D. (2025). Integrative learning strategies for Indigenous learners: Visual, kinesthetic, and verbal approaches. *Journal of Multicultural Learning*, 18(1), 14–29.
- (7) Guiberson, M., & Vining, C. B. (2023). Culturally aligned instructional strategies: A scoping review of evidence and practice. *Educational Review*, 75(4), 589–606. <https://doi.org/10.1080/00131911.2022.2047816>
- (8) Howe, E. R., Smith, K., & Lee, J. (2021). Teacher preparedness and culturally responsive pedagogy: Challenges in Indigenous education. *Teaching and Teacher Education*, 103, 103340. <https://doi.org/10.1016/j.tate.2021.103340>
- (9) Imperial, R. S. (2024). Learner engagement in indigenized classroom instruction: Evidence from IPED schools. *Journal of Philippine Education Research*, 12(2), 88–102.
- (10) Kaya, S., & Erdem, A. R. (2021). Instructional design for culturally responsive teaching: A systematic review. *Educational Research Review*, 33, 100389. <https://doi.org/10.1016/j.edurev.2021.100389>
- (11) Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(3), 465–491. <https://doi.org/10.3102/00028312032003465>
- (12) Li, Y., Wang, M., & Chen, X. (2023). Teacher–student relationships and culturally matched resources: A meta-analysis of engagement outcomes. *Educational Psychology Review*, 35(2), 421–448. <https://doi.org/10.1007/s10648-022-09679-3>
- (13) Lotivio, J. R., & Bercasio, M. L. (2025). Game-based learning using indigenized materials: Effects on learner performance in science. *Journal of Innovative Teaching Practices*, 9(1), 31–47.
- (14) Mio-le, F. R. (2024). Policy and practice gaps in Indigenous Peoples Education: A classroom-level analysis. *International Journal of Inclusive Education*, 28(6), 812–828. <https://doi.org/10.1080/13603116.2022.2104897>
- (15) Mkhwebane, M. P. (2024). Teacher training and resource development in the integration of Indigenous Knowledge Systems. *African Journal of Education Studies*, 19(3), 55–70.
- (16) Ogunniyi, M. B. (2023). Curriculum reform and cultural responsiveness in basic education. *Curriculum Perspectives*, 43(1), 15–27. <https://doi.org/10.1007/s41297-022-00192-5>
- (17) Piaget, J. (1970). *Science of education and the psychology of the child*. Orion Press.
- (18) Raju, S. (2024). Culturally responsive pedagogy and learner motivation: Implications for inclusive education. *Journal of Educational Practice*, 15(4), 101–112.
- (19) Reyes, L. V. (2022). Culturally responsive teaching and student achievement in diverse classrooms. *Journal of Teacher Education*, 73(5), 567–579. <https://doi.org/10.1177/00224871221078945>
- (20) Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
-