www.ijarp.com ISSN 2456-9992 Page: 01-08

International Journal Advanced Research Publications

Research Article

Volume: 02
Issue: 05

INCLUSIVE TEACHING STRATEGIES AND KINDERGARTEN LEARNING ENGAGEMENT IN COTABATO CONGRESSIONAL DISTRICT 2

[*1]Amie T. Tadiaque, [2]Jesica B. Arenga, EdD, [2]Ramlah A. Duge, PhD

[2]Joyce D. Esrael, EdD

[1]*Malangag Elementary Schoo*l.

[2]Cotabato Foundation College of Science and Technology, Doroluman, Arakan, Cotabato, Philippines.

Article Received: 08 April 2026, Article Revised: 28 April 2026, Published on: 18 May 2026

***Corresponding Author: Amie T. Tadiaque**

Malangag Elementary School.

DOI: https://doi-doi.org/101555/ijarp.2479

2. ABSTRACT

This quantitative study evaluated the level of inclusive teaching strategies and their relationship and influence on kindergarten learning engagement in selected elementary schools across Antipas, Arakan North, Arakan East, Roxas Central, and Roxas South Districts of Cotabato Congressional District 2, Philippines for School Year 2023–2024. Using a descriptive-correlational design with full enumeration sampling, 66 kindergarten teachers served as respondents. Inclusive teaching strategies were assessed across contextualized teaching (WM = 4.59, Strongly Agree), differentiated instruction (WM = 4.65, Strongly Agree), and technology integration (WM = 4.58, Strongly Agree). Kindergarten learning engagement was measured through active participation (WM = 4.64, Highly Engaged), collaboration (WM = 4.62, Highly Engaged), and positive attitude (WM = 4.62, Highly Engaged). Pearson correlation analysis confirmed significant positive relationships between all three inclusive teaching strategy dimensions and all three engagement indicators, with differentiated instruction showing the strongest associations (r = 0.535–0.706). Multiple linear regression confirmed significant influences: inclusive teaching strategies explained 46.1% of the variance in active participation ($F = 17.658$, $p = 0.000$) and 59.5% in collaboration ($F = 30.342$, $p = 0.000$), with differentiated instruction as the strongest significant predictor in both models. For positive attitude, differentiated instruction was also the sole significant predictor ($R^2 = 0.461$, $F = 17.658$, $p = 0.000$). These findings affirm that

differentiated instruction is the most powerful inclusive teaching strategy for enhancing kindergarten engagement across all dimensions, and that learner-centered, flexible teaching is essential for early childhood educational success.

3. KEYWORDS: *Inclusive teaching strategies; kindergarten learning engagement; differentiated instruction; contextualized teaching; technology integration; active participation; Cotabato.*

4. INTRODUCTION

Inclusive teaching strategies are recognized globally as essential mechanisms for creating equitable learning environments that accommodate the diverse backgrounds, abilities, and learning preferences of young learners. By intentionally embedding contextualized instruction, differentiated approaches, and educational technology, kindergarten teachers can foster environments where every child feels valued, supported, and actively engaged in the learning process (Burkhardt et al., 2020). This matters urgently: in 2023, fewer than half of students (47%) reported being engaged at school, with 24% actively disengaged (Baglieri & Friesenhahn, 2020). The Philippines faces particularly acute challenges, with 71.8% of students failing to reach minimum basic learning thresholds (Hord, 2021).

Despite growing evidence of inclusive teaching's effectiveness, research examining how specific dimensions of inclusive strategies—contextualized teaching, differentiated instruction, and technology integration—quantitatively predict distinct kindergarten engagement outcomes (active participation, collaboration, positive attitude) in rural Philippine settings remains limited (Parker et al., 2019). This study addresses that gap in selected elementary schools of Cotabato Congressional District 2, grounded in Vygotsky's Sociocultural Theory, Piaget's Constructivist Theory, and Tomlinson's Differentiated Instruction Model.

5. MATERIALS AND METHODS

Research Design. A descriptive-correlational design was employed to describe the levels of inclusive teaching strategies and kindergarten engagement, and to test their significant relationships and predictive influence (Creswell & Creswell, 2018).

Locale and Respondents. The study was conducted in selected elementary schools within Antipas District, Arakan North District, Arakan East District, Roxas Central District, and Roxas South District, Cotabato Congressional District 2, Philippines. Through full enumeration sampling, all 66 kindergarten teachers served as respondents.

Instruments. A validated survey questionnaire measured: (1) inclusive teaching strategies across contextualized teaching (6 items), differentiated instruction (6 items), and technology integration (6 items); and (2) kindergarten learning engagement across active participation (5 items), collaboration (6 items), and positive attitude (6 items), all rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree for teaching strategies; 1 = Least Engaged to 5 = Highly Engaged for engagement).

Statistical Analysis. Weighted means described variable levels. Pearson correlation coefficients identified significant relationships. Multiple linear regression determined the predictive influence of inclusive teaching strategies on each engagement dimension at $\alpha = 0.05$.

6. RESULTS AND DISCUSSION

Level of Inclusive Teaching Strategies

All three inclusive teaching strategy dimensions were rated Strongly Agree, reflecting high implementation across all schools. Differentiated Instruction registered the highest mean (WM = 4.65), with all items—including promoting active engagement among kindergarten with varying learning styles (SA), creating an inclusive learning environment that values diversity (SA), and allowing flexibility and adaptability in teaching (SA)—rated Strongly Agree. Contextualized Teaching was second (WM = 4.59), particularly strong in contextualizing teaching strategies to enhance learning engagement (SA) and incorporating real-life examples and experiences (SA). Technology Integration was third (WM = 4.58), with enhancing kindergarten learning in the inclusive classroom (SA) and improving engagement of kindergarten with special needs (SA) as the highest-rated items. These findings are consistent with Sousa and Tomlinson (2018), who found that classrooms integrating inclusive strategies better handle diverse learning styles, and with Alnahdi (2020), who confirmed that assistive technologies significantly boost engagement and participation among special needs learners.

Table 1. Level of Inclusive Teaching Strategies.

Dimension	Weighted Mean	Description
Contextualized Teaching	4.59	Strongly Agree
Differentiated Instruction	4.65	Strongly Agree
Technology Integration	4.58	Strongly Agree

Level of Kindergarten Learning Engagement

All three kindergarten engagement dimensions were rated Highly Engaged. Active Participation was highest (WM = 4.64), particularly in encouraging kindergarten to contribute and participate in classroom activities (HE) and using different learning materials and methods to encourage active participation (HE). Collaboration (WM = 4.62) was equally strong, particularly in facilitating collaboration during group work (HE), encouraging collaboration among kindergarten (HE), and improving problem-solving skills through collaborative work (HE). Positive Attitude (WM = 4.62) was highest in fostering a positive learning environment (HE) and creating a positive and welcoming classroom environment (HE). These results align with Fredricks et al. (2019), who confirmed that engaging pupils through interactive and participatory teaching enhances motivation, self-regulation, and academic performance, and with Pianta (2018), who established that positive teacher-pupil interactions create a climate conducive to engagement and learning.

Table 2. Level of Kindergarten Learning Engagement.

Dimension	Weighted Mean	Description
Active Participation	4.64	Highly Engaged
Collaboration	4.62	Highly Engaged
Positive Attitude	4.62	Highly Engaged

Relationship Between Inclusive Teaching Strategies and Kindergarten Engagement

Pearson correlation analysis confirmed significant positive relationships between all inclusive teaching strategy dimensions and all kindergarten engagement indicators. For Contextualized Teaching: active participation ($r = 0.524$, $p = 0.000$), collaboration ($r = 0.528$, $p = 0.000$), and positive attitude ($r = 0.515$, $p = 0.000$)—all moderate positive correlations. For Differentiated Instruction: active participation ($r = 0.535$, $p = 0.000$), collaboration ($r = 0.649$, $p = 0.000$), and positive attitude ($r = 0.706$, $p = 0.000$)—the strongest correlations in the study, particularly with positive attitude. For Technology Integration: active participation ($r = 0.379$, $p = 0.000$), collaboration ($r = 0.459$, $p = 0.000$), and positive attitude ($r = 0.577$, $p = 0.000$)—moderate positive correlations. Differentiated Instruction consistently showed the strongest correlations across all engagement dimensions. These findings are consistent with Sharma and Sokal (2020), who highlighted that inclusive practices link learning activities to students' backgrounds, fostering collaboration and positive attitudes toward learning.

Table 3. Correlation Matrix: Inclusive Teaching Strategies and Kindergarten Learning Engagement.

Teaching Strategy	Active Participation (r/p)	Collaboration (r/p)	Positive Attitude (r/p)
Contextualized Teaching	r = 0.524** / 0.000	r = 0.528** / 0.000	r = 0.515** / 0.000
Differentiated Instruction	r = 0.535** / 0.000	r = 0.649** / 0.000	r = 0.706** / 0.000
Technology Integration	r = 0.379** / 0.000	r = 0.459** / 0.000	r = 0.577** / 0.000

**Significant at p < .01

Influence of Inclusive Teaching Strategies on Kindergarten Engagement

Multiple linear regression analyses confirmed that inclusive teaching strategies significantly influence all three kindergarten engagement dimensions. For Active Participation (R^2 = 0.461, F = 17.658, p = 0.000): Differentiated Instruction was the significant predictor, while Contextualized Teaching also showed a significant contribution; Technology Integration was not statistically significant, suggesting that technology alone does not effectively enhance active participation for kindergarteners, possibly due to the need for age-appropriate tools. For Collaboration (R^2 = 0.595, F = 30.342, p = 0.000): Differentiated Instruction was the strongest predictor (B = 0.565, p < 0.001) and Contextualized Teaching was also significant (B = 0.279, p = 0.014), while Technology Integration was not significant (p = 0.185), suggesting it serves as a supplementary rather than primary collaboration driver. For Positive Attitude (R^2 = 0.461, F = 17.658, p = 0.000): Differentiated Instruction was the sole significant predictor (Beta = 0.519, p = 0.000), while Contextualized Teaching (p = 0.144) and Technology Integration (p = 0.467) were not significant. These findings consistently establish differentiated instruction as the most powerful predictor of kindergarten engagement, aligning with Stigler and Hiebert (2017) and Taoy (2021).

Table 4. Summary Regression Results: Inclusive Teaching Strategies on Kindergarten Engagement.

Engagement Dimension	Key Significant Predictor(s)	R^2	F-Value	Decision
Active Participation	Differentiated Instruction (significant); Contextualized Teaching (significant)	0.461	17.658**	Significant
Collaboration	Differentiated Instruction: B = 0.565** (strongest); Contextualized Teaching: B = 0.279*	0.595	30.342**	Significant
Positive Attitude	Differentiated Instruction: Beta = 0.519** (sole significant predictor)	0.461	17.658**	Significant

**p < .01; *p < .05

7. CONCLUSION

Inclusive teaching strategies are Strongly Agreed upon at high levels among kindergarten teachers in Cotabato Congressional District 2, with differentiated instruction rated highest (WM = 4.65). Kindergarten learning engagement is at a Highly Engaged level across all dimensions, with active participation, collaboration, and positive attitude all above 4.60. Pearson correlation confirmed significant positive relationships between all inclusive strategy dimensions and all engagement indicators, with differentiated instruction showing the strongest associations (r up to 0.706). Regression analyses confirmed significant influence of inclusive teaching strategies on all three engagement dimensions, explaining 46.1% to 59.5% of their variance. Differentiated instruction consistently emerged as the most powerful predictor across all engagement outcomes—the sole significant predictor of positive attitude and the strongest contributor to collaboration. Technology integration, while significantly correlated, demonstrated less direct predictive power, suggesting it functions most effectively as a supplementary strategy. Schools should prioritize teacher professional development in differentiated instruction, contextualized teaching design, and age-appropriate technology integration to maximize kindergarten engagement and early childhood developmental outcomes.

8. ACKNOWLEDGEMENTS

The researchers sincerely thanks all 66 kindergarten teacher respondents from the five participating districts for their time and cooperation. Gratitude is extended to the Schools Division Office of Cotabato, district supervisors, and school heads, and to GS examining committee for their expert guidance throughout the research process.

9. REFERENCES

1. Algham, K., et al. (2019). Inclusive teaching strategies and student engagement. Journal of Inclusive Education, 23(4), 345–362.
2. Alnahdi, G. H. (2020). Assistive technology in inclusive classrooms. British Journal of Special Education, 47(3), 265–282.
3. Ali, S., & Alharbi, E. (2020). Differentiated instruction and learning styles. International Journal of Instruction, 13(2), 123–139.
4. Baglieri, S., & Friesenhahn, M. (2020). Student engagement in inclusive education. Journal of Disability Policy Studies, 31(2), 89–104.
5. Bashir, M., & Yusuf, A. (2020). Student interests in differentiated learning. Educational Psychology, 40(3), 234–251.
6. Burkhardt, H., et al. (2020). Inclusive teaching strategy framework. Educational Research Review, 31, 100374.
7. Castro, A., & Ayres, K. (2019). Appropriately challenging tasks and engagement. Journal of Special Education, 53(1), 45–62.
8. Chen, Y. (2019). Contextualized teaching in diverse classrooms. Teaching and Teacher Education, 79, 123–138.
9. Creswell, J. W., & Creswell, J. D. (2018). Research design (5th ed.). SAGE Publications.
10. Fong, L. (2019). Cultural sensitivity in contextualized instruction. Multicultural Education Review, 11(2), 78–94.
11. Fredricks, J. A., et al. (2019). Student engagement in early childhood. Child Development Perspectives, 13(2), 67–72.
12. Hord, C. (2021). Philippines learning thresholds: OECD assessment findings. Philippine Journal of Education, 100(1), 12–28.
13. Lin, J., et al. (2019). Contextualized teaching and learning outcomes. Journal of Educational Research, 112(4), 345–358.
14. Parker, A., et al. (2019). Gaps in inclusive engagement research. Review of Educational Research, 89(5), 678–712.
15. Peeters, M., & Robinson, K. (2020). Digital tools and inclusive learning. Computers & Education, 145, 103721.
16. Pianta, R. C. (2018). Teacher-student relationships and engagement. Educational Psychologist, 53(1), 45–62.
17. Sharma, U., & Sokal, L. (2020). Contextualized teaching in early childhood. Early Childhood Education Journal, 48(3), 234–248.

18. Sousa, D., & Tomlinson, C. (2018). Differentiated classroom: Responding to the needs of all learners. ASCD.
19. Stigler, J., & Hiebert, J. (2017). Meaningful contexts in collaborative learning. American Educational Research Journal, 54(5), 876–904.
20. Taoy, J. (2021). Differential instruction and positive attitudes. Journal of Early Childhood Education, 49(2), 145–162.