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Teachers' Instructional Adaptability and Learner Performance: A Community-Service Framework for Public Elementary Schools

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ABSTRACT

This study examined teachers' instructional adaptability and learner academic performance in selected public elementary schools in Cardona, Rizal and translated the findings into a proposed community-service framework. A descriptive-evaluative design assessed Pedagogical Flexibility, Content Modification, Technological Agility, and Socio-emotional Responsiveness. Teachers demonstrated a very high overall level of instructional adaptability, while learner performance was interpreted as very satisfactory. All adaptability dimensions showed significant positive relationships with learner performance, with Socio-emotional Responsiveness showing the strongest association. Based on these findings, a community-service framework emphasizing teacher capacity building, adaptive instructional support, socio-emotional responsiveness, stakeholder participation, and school-based monitoring is proposed to strengthen responsive teaching practices.

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1. INTRODUCTION

Elementary-school classrooms include learners with different levels of readiness, learning pace, academic needs, behavioral characteristics, and socio-emotional conditions. Consequently, effective teaching requires more than the consistent application of predetermined instructional procedures. Teachers need the capacity to interpret classroom situations and modify instructional decisions when existing strategies do not adequately respond to learners. This capacity can be understood through instructional adaptability, which includes adjustments in teaching strategies, learning activities, instructional materials, classroom interaction, and assessment. Adaptive teaching involves deliberate instructional changes based on teachers' interpretation of learners and classroom conditions [1].

Instructional adaptability is closely related to adaptive expertise. Adaptive expertise emphasizes teachers' capacity to apply professional knowledge flexibly rather than depending only on established routines. Adaptive expertise is associated with teachers' interpretation of classroom events and their ability to respond flexibly to instructional conditions [2]. The development of adaptive expertise involves increasing attention to learner needs and the complexity of teaching situations [3]. Thus, adaptability can be understood as a professional capacity involving observation, interpretation, reflection, and responsive instructional action.

This capacity is particularly important in elementary education because learners may differ considerably in readiness, learning ability, engagement, and instructional support needs. Responding to these differences may require adjustments not only in teaching strategies but also in materials, learning tasks, pacing, and modes of explanation. Differentiated instruction provides an important conceptual basis for this process. Differentiated approaches can support learning when instructional adjustments are intentionally aligned with learner characteristics and classroom needs [4].

Instructional adaptability in this study comprises four dimensions: Pedagogical Flexibility, Content Modification, Technological Agility, and Socio-emotional Responsiveness. Technological Agility reflects teachers' capacity to select and use technological resources appropriately for instructional purposes. Teacher digital competence involves not only technical skills but also pedagogical and professional capacities required for meaningful technology integration [5]. Pedagogical Flexibility concerns the ability to adjust teaching approaches and classroom strategies according to learner and classroom conditions. Flexible teaching strategies are important because instructional approaches can influence learner engagement and participation [6]. Socio-emotional Responsiveness concerns sensitivity to learners' emotional and interpersonal needs. Positive teacher-student relationships have been associated with stronger academic engagement [7]. Teacher engagement with learners in inclusive classrooms further highlights the importance of responsive and supportive interaction [8]. Emotional engagement is also influenced by instructional support and the learning environment [9]. Content Modification refers to the adaptation of learning materials and tasks according to learner readiness and instructional needs.

These dimensions are relevant not only to classroom research but also to community service in educational settings. Community service can provide a practical mechanism for translating research findings into teacher support and school-based professional development. Instead of limiting assessment results to statistical interpretation, findings related to instructional adaptability can be used to guide teacher workshops, collaborative

lesson planning, differentiated-material development, digital-teaching support, socio-emotional support activities, mentoring, and school-based monitoring. Teacher support has been shown to be associated with academic performance, indicating the importance of strengthening instructional and interpersonal support within educational settings [10]. Longitudinal evidence also indicates meaningful relationships between teacher support and academic achievement among school-age learners [11].

Such an approach is important because assessment alone does not automatically improve instructional practice. Research findings become more useful when they are translated into practical activities that respond to identified strengths and professional-development needs. Evidence concerning Pedagogical Flexibility can inform adaptive-teaching workshops and collaborative examination of instructional strategies. Findings regarding Content Modification can support the preparation of learning materials that respond more effectively to learner needs. Technological Agility can provide a basis for digital-teaching assistance, while Socio-emotional Responsiveness can support activities focused on classroom communication, learner support, and teacher-learner relationships. The assessment findings therefore provide an evidence base for developing community-service activities focused on teacher capacity building, school-based professional support, and stakeholder participation.

Teachers demonstrated a very high overall level of instructional adaptability, and school-head evaluations generally supported this pattern. Learner academic performance was interpreted as very satisfactory. The results also showed significant positive relationships between all instructional-adaptability dimensions and learner performance, with Socio-emotional Responsiveness demonstrating the strongest association. These findings provide an opportunity to move from assessment toward practical educational support. Rather than ending with the identification of statistical relationships, the findings can serve as an evidence base for community-service activities involving teacher capacity building, professional collaboration, stakeholder participation, and continuous school-based monitoring.

This study aimed to: (i) describe the profile of teacher-respondents in terms of educational attainment, years in service, and relevant professional training; (ii) assess instructional adaptability in terms of Pedagogical Flexibility, Content Modification, Technological Agility, and Socio-emotional Responsiveness; (iii) describe learner academic performance; (iv) determine the relationships between instructional-adaptability dimensions and learner performance; and (v) translate the findings into a proposed community-service framework for strengthening responsive instructional practices in public elementary schools. The novelty of this study lies in connecting a multidimensional assessment of teachers' instructional adaptability with a community-service-oriented application. Rather than treating the results only as statistical relationships, the study uses the findings to develop teacher-capacity-building and school-support activities grounded in identified instructional needs. This approach links empirical assessment with practical professional development while maintaining a clear distinction between correlation and causation.

2. LITERATURE REVIEW

2.1. Instructional adaptability and adaptive expertise

Instructional adaptability refers to teachers' capacity to modify instruction according to learner needs and classroom circumstances. Teachers may adapt instructional methods, materials, task difficulty, pacing, classroom interaction, assessment, or forms of support in

response to evidence emerging during teaching. Research on teachers' instructional adaptations has identified such adjustments as an important characteristic of responsive teaching [1]. The concept is closely related to adaptive expertise. Adaptive expertise reflects teachers' ability to use professional knowledge flexibly when instructional situations change. Adaptive expertise is associated with how teachers interpret classroom events and respond to varying instructional conditions [2]. Adaptability requires more than possession of multiple teaching methods; it also requires professional judgment regarding when and how an instructional adjustment should be made. Developing adaptive expertise involves increasing attention to learners and to the complexity of instructional situations [3]. Professional-learning environments that provide opportunities for practical application, reflection, experimentation, and repeated instructional adjustment can further support the development of adaptive teaching competence [12, 13]. These characteristics are relevant to community-service programs because teacher workshops and mentoring can focus on actual classroom challenges and practical instructional decisions rather than only on theoretical principles.

2.2. Pedagogical flexibility

Pedagogical Flexibility represents teachers' capacity to modify instructional strategies, teaching procedures, classroom organization, pacing, and learning activities according to learner needs and instructional conditions. Flexibility does not mean abandoning instructional planning. Instead, planning provides an initial structure that teachers may adjust when classroom evidence suggests that another approach would be more appropriate. Research on adaptive expertise supports this view because effective teaching involves balancing established professional routines with openness to alternative instructional responses [2, 3]. Pedagogically flexible teachers therefore require both a repertoire of strategies and the professional judgment needed to choose among them. Within a community-service context, Pedagogical Flexibility can become a focus of teacher-development activities. Proposed activities may include adaptive-teaching workshops, collaborative lesson planning, peer demonstrations, and lesson-reflection sessions. Such activities may help teachers examine different instructional approaches and consider how they can be adjusted to learner characteristics and classroom conditions.

2.3. Content modification

Content Modification refers to the adjustment of instructional materials, examples, learning activities, tasks, or levels of difficulty while maintaining intended learning objectives. This dimension is closely related to differentiated instruction because teachers may need to provide different learning pathways for learners with varying levels of readiness and understanding. Differentiated approaches can support cognitive learning when instructional adjustments are deliberately designed and appropriately implemented [4]. Differentiation should therefore not be reduced simply to separating learners into groups. Its effectiveness depends on how teachers modify the learning experience to address identified learner needs. In a community-service setting, Content Modification can be translated into practical teacher-support activities. Proposed activities may include collaborative preparation of differentiated worksheets, contextualization of learning examples, development of alternative learning materials, and workshops on adjusting task complexity. These activities can help teachers transform the principle of differentiation into practical instructional resources.

2.4. Technological agility

Technological Agility refers to teachers' capacity to select, use, and adjust technological resources according to instructional requirements. Technology can support content presentation, communication, practice, assessment, and access to learning resources. However, technological adaptability involves more than the ability to operate digital tools. Teacher digital competence integrates technological, pedagogical, and professional elements, indicating that technology should be selected according to instructional purposes and learner needs [5]. Technology can therefore become part of instructional adaptability when it expands teachers' options for responding to different learning situations. Teachers may need to shift among digital and non-digital approaches depending on available resources, learner access, instructional goals, and classroom circumstances. Within a community-service framework, Technological Agility can be supported through proposed digital-teaching clinics, demonstrations of instructional applications, collaborative preparation of digital materials, and mentoring for teachers requiring additional support. Such activities should emphasize pedagogically appropriate use of technology rather than technology adoption as an end in itself.

2.5. Socio-emotional responsiveness

Socio-emotional Responsiveness concerns teachers' sensitivity to learners' emotional, interpersonal, and social conditions during the learning process. Teaching is not only an academic process but also a relational one. Supportive teacher-student relationships, emotional engagement, and responsive classroom interactions have been associated with learner engagement and participation [6-9]. In this study, Socio-emotional Responsiveness showed particularly strong results in teacher and school-head assessments and also demonstrated the strongest association with learner performance. These findings do not establish direct causality, but socio-emotional responsiveness is an important area for interpretation and possible school-based support. Proposed community-service activities related to this dimension may include teacher sessions on supportive classroom communication, recognition of learner emotional needs, strengthening teacher-learner interaction, and coordination with school heads or families when learners require additional support. These activities are particularly relevant because socio-emotional responsiveness involves multiple stakeholders within the school community.

2.6. Teacher capacity building and community service

Community service in education can provide a bridge between research findings and practical teacher development. Assessment identifies existing instructional conditions, while community-service activities can use this information to design professional-learning opportunities and school-based support. Student-centered professional development can further support teachers in aligning instructional decisions with learner needs and encouraging active participation in learning [14]. In the present study, the instructional-adaptability assessment provides a structured basis for identifying areas that may benefit from further teacher development. The four dimensions measured in the study correspond to four areas of potential professional support. Pedagogical Flexibility can be strengthened through adaptive-teaching workshops and collaborative planning. Content Modification can be addressed through differentiated-material development. Technological Agility can be supported through practical digital-teaching activities. Socio-emotional Responsiveness can be strengthened through communication, learner-support, and classroom-climate activities.

School heads are also important stakeholders because the study includes their assessments of teachers' adaptability. Their participation may support monitoring, professional feedback, organization of school-based activities, and follow-up. Thus, the proposed community-service framework should involve teachers, school heads, and other relevant educational stakeholders rather than treating teacher development as an isolated activity.

2.7. Proposed community-service framework

The findings can be translated into a proposed community-service framework consisting of several connected components. The process begins with instructional-adaptability assessment and identification of areas that may benefit from further support. The findings can then inform capacity-building activities, school-based application, stakeholder participation, and continued monitoring.

The relationship between each assessed dimension and its proposed community-service application is summarized in **Table 1**. The table links the assessment dimensions with target stakeholders, possible community-service activities, and expected educational contributions. Pedagogical Flexibility is associated with adaptive-teaching development, Content Modification with differentiated-material preparation, Technological Agility with digital instructional support, and Socio-emotional Responsiveness with learner-support activities. Monitoring and reflection are included to support continuing professional development.

Table 1. Proposed community-service framework based on instructional adaptability assessment.

ASSESSMENT DIMENSION	TARGET STAKEHOLDER	PROPOSED COMMUNITY-SERVICE ACTIVITY	EXPECTED CONTRIBUTION
Pedagogical Flexibility	Teachers	Adaptive-teaching workshop and collaborative lesson planning	Broader repertoire of responsive instructional strategies
Content Modification	Teachers	Differentiated-material development session	Improved ability to adapt learning tasks and materials
Technological Agility	Teachers	Practical digital-teaching clinic	More appropriate use of technology for instructional needs
Socio-emotional Responsiveness	Teachers and school heads	Learner-support and responsive-communication workshop	Strengthened supportive classroom interactions
Monitoring and reflection	Teachers and school heads	Periodic reflection and instructional monitoring	Continuous identification of professional-development needs

2.8. Integrated community-service perspective

An integrated perspective is important because instructional adaptability consists of related but distinct dimensions. A teacher may demonstrate strong Socio-emotional Responsiveness while still requiring additional support in Technological Agility. Another teacher may demonstrate strong Content Modification but may benefit from a wider range of pedagogical strategies. Therefore, community-service activities should respond to identified needs rather than apply a uniform intervention to all areas. The proposed framework begins with instructional-adaptability assessment. The findings are then used to identify instructional strengths and professional-development needs. Appropriate community-service activities can be proposed, followed by school-based application, stakeholder participation, monitoring, and further professional reflection. This approach

keeps the interpretation consistent with the research design. The study identifies statistically significant relationships between instructional adaptability and learner performance, but these relationships should not be interpreted as evidence of direct causal effects.

3. METHOD

3.1. Research Design

This study employed a descriptive-evaluative research design to examine teachers' instructional adaptability and its relationship with learner academic performance. The descriptive component was used to determine the profile of teacher-respondents, assess the level of instructional adaptability, and describe learner performance. The evaluative component examined the relationship between the dimensions of instructional adaptability and learner academic performance. The findings were subsequently interpreted within a community-service perspective to identify appropriate areas for teacher capacity building and school-based professional support.

3.2. Study Setting and Participants

The study was conducted in selected public elementary schools in Cardona, Rizal, Philippines. The respondents consisted of 44 public elementary-school teachers, while academic-performance records covered 1,568 learners. The teacher profile was examined according to educational attainment, years in service, and relevant professional training. These characteristics were included because professional preparation, teaching experience, and participation in training may provide important contextual information for understanding teachers' instructional practices.

3.3. Research Instrument and Data Sources

Instructional adaptability was measured using a validated researcher-made questionnaire employing a five-point Likert scale. The instrument assessed four dimensions: Pedagogical Flexibility, Content Modification, Technological Agility, and Socio-emotional Responsiveness. Teacher self-assessments were complemented by school-head evaluations to provide an additional perspective on instructional adaptability. Learner academic performance was obtained through document analysis of official Report on Promotion records. The use of official school records provided the academic-performance measure used in examining its relationship with teachers' instructional adaptability.

3.4. Data Analysis

The data were processed using SPSS. Frequency and percentage were used to describe the teacher profile, while weighted means were applied to determine the levels of instructional adaptability. Learner academic performance was summarized using the General Weighted Average. Pearson Product-Moment Correlation was used to determine the relationships between the four dimensions of instructional adaptability and learner academic performance. Statistical significance was evaluated at an alpha level of 0.05. The correlation analysis was interpreted as evidence of association rather than causation. This distinction was maintained because learner academic performance may be influenced by multiple teacher-related, learner-related, family, school, and contextual factors.

3.5. Community-Service Interpretation

The community-service component was developed by translating the assessment findings into areas for teacher professional support. Results concerning Pedagogical Flexibility, Content Modification, Technological Agility, and Socio-emotional Responsiveness were used to identify suitable themes for teacher capacity building, collaborative instructional development, digital-teaching support, learner-responsive practices, stakeholder participation, and school-based monitoring. The assessment findings were interpreted as an evidence base for identifying community-service priorities involving teachers, school heads, and other educational stakeholders. These priorities focused on teacher capacity building, collaborative instructional development, digital-teaching support, learner-responsive practices, stakeholder participation, and school-based monitoring.

4. RESULTS AND DISCUSSION

4.1. Educational Attainment of Teacher-Respondents

The teaching workforce included educators with different levels of postgraduate preparation. Most respondents had either completed graduate degrees or obtained graduate-level units. This profile suggests substantial participation in continuing academic development beyond the undergraduate level. Advanced study may broaden teachers' exposure to pedagogical concepts, instructional strategies, research, and reflective practices that can support adaptive teaching [1-3]. The distribution of educational attainment is presented in **Table 2**. The largest group consisted of teachers with master's units, followed by master's degree graduates. Teachers with doctorate degrees or doctorate units were also represented, while bachelor's degree holders constituted the smallest group. From a community-service perspective, this range of academic preparation indicates that professional-development activities can benefit from differentiated participation, peer sharing, and collaborative instructional planning rather than assuming identical professional backgrounds among teachers.

Table 2. Educational attainment profile of teacher-respondents.

CATEGORY	FREQUENCY (n)	PERCENTAGE (%)
Doctorate Degree (Ed.D./Ph.D.)	4	9.1
With Doctorate Units	7	15.9
Master's Degree Graduate	12	27.3
With Master's Units	15	34.1
Bachelor's Degree Holder	6	13.6
Total	44	100.0

4.2. Years in Service

Teaching experience provides another important context for understanding instructional adaptability. More than two-thirds of the respondents had served for more than a decade, indicating that the group was predominantly composed of experienced teachers. Long-term classroom experience may provide repeated opportunities to encounter diverse learner needs, instructional difficulties, and classroom situations requiring adjustment. Adaptive expertise develops partly through the interaction between professional knowledge, classroom experience, reflection, and responsiveness to changing conditions [2, 3]. As shown in **Table 3**, teachers with 11-15 years of service represented the largest group, followed by

those with 4-10 years and 16-20 years of experience. Only a small proportion had three years or less of service. Community-service activities can incorporate experience-sharing and peer mentoring, allowing experienced teachers to contribute practical classroom knowledge while also engaging with new instructional approaches.

Table 3. Years in service profile of teacher-respondents.

CATEGORY	FREQUENCY (n)	PERCENTAGE (%)
21 years and above	8	18.2
16-20 years	10	22.7
11-15 years	12	27.3
4-10 years	11	25.0
0-3 years	3	6.8
Total	44	100.0

4.3. Relevant Professional Training

Professional training provides opportunities for teachers to expand instructional knowledge and develop practical strategies for responding to learner diversity. Participation in training is particularly relevant to instructional adaptability because responsive teaching requires teachers to possess multiple instructional options and the professional judgment needed to select among them. Professional learning that emphasizes learner-centered strategies, instructional differentiation, reflection, and practical application can strengthen teachers' capacity to respond to varied classroom situations [3, 12-14]. The distribution of relevant professional training is summarized in **Table 4**. Most respondents had participated in several training activities, with the largest proportion reporting five to six relevant trainings. Smaller proportions reported either very limited participation or nine or more trainings. Future community-service activities should provide opportunities not only for formal training but also for collaborative follow-up, demonstration, mentoring, and school-based application.

Table 4. Relevant trainings attended by teacher-respondents.

CATEGORY	FREQUENCY (n)	PERCENTAGE (%)
9 and above	5	11.4
7-8	9	20.5
5-6	14	31.8
3-4	11	25.0
1-2	5	11.4
Total	44	100.0

4.4. Levels of Teachers' Instructional Adaptability

Teachers demonstrated a very high overall level of instructional adaptability based on self-assessment, while school-head evaluations also indicated a very high overall assessment. Socio-emotional Responsiveness received the highest mean from both groups. Content Modification also received very high assessments, whereas differences between teacher and school-head evaluations were more visible for Pedagogical Flexibility and Technological Agility. These results are summarized in **Table 5**. Teacher ratings ranged from 4.49 to 4.64, while school-head ratings ranged from 4.20 to 4.50. The overall composite means were 4.54 for teachers and 4.30 for school heads. The results indicate generally strong perceptions of

adaptability while also showing that the four dimensions should not be treated as completely identical aspects of teaching.

Table 5. Composite summary of instructional adaptability levels.

DIMENSION	TEACHER MEAN	TEACHER VI	SCHOOL HEAD MEAN	SCHOOL HEAD VI
Pedagogical Flexibility	4.49	Very High	4.20	High
Content Modification	4.50	Very High	4.30	Very High
Technological Agility	4.51	Very High	4.20	High
Socio-emotional Responsiveness	4.64	Very High	4.50	Very High
Overall Composite Mean	4.54	Very High	4.30	Very High

Pedagogical Flexibility received the lowest teacher mean among the four dimensions, while school heads rated this dimension as High rather than Very High. Pedagogical flexibility remains a useful focus for professional reflection even when overall teacher self-assessment is strong. Adaptive teaching involves more than possessing instructional knowledge; it requires teachers to recognize when established approaches should be adjusted and to select alternatives appropriate to learner and classroom conditions [1-3].

Content Modification obtained a very high rating from both teachers and school heads. This finding is consistent with differentiated-instruction literature emphasizing the importance of adjusting materials, learning activities, and task demands according to learner needs [4]. Community-service activities can build on this existing strength by encouraging collaborative preparation and exchange of differentiated instructional resources.

Technological Agility also received a very high teacher assessment but a lower school-head evaluation. Technology-related instructional practices can remain an area for shared professional reflection. Technology becomes part of adaptive teaching when it is selected according to instructional purpose and learner needs rather than used merely because digital tools are available.

Socio-emotional Responsiveness obtained the highest assessment from both teachers and school heads. The result is consistent with literature showing the importance of supportive teacher-learner relationships, social support, and emotional engagement in educational participation [6-9]. The strong rating provides an important basis for community-service activities that reinforce supportive communication and learner-responsive classroom practices while sharing effective approaches among teachers.

4.5. Learner Performance and Its Relationship with Instructional Adaptability

Learners achieved a General Weighted Average of 88.45, which was interpreted as Very Satisfactory in the assessment. The relationship analysis examined whether learner performance was associated with each of the four instructional-adaptability dimensions. All four correlations were positive and statistically significant. The comparative results are presented in **Table 6**. Socio-emotional Responsiveness produced the highest correlation coefficient, followed by Content Modification and Pedagogical Flexibility. Technological Agility produced the lowest coefficient among the four dimensions, although the relationship remained statistically significant. The null hypothesis was therefore rejected for all dimensions.

Table 6. Relationship between instructional adaptability dimensions and learner performance.

ADAPTABILITY DIMENSION	LEARNER VARIABLE	R-VALUE	P-VALUE	DECISION
Pedagogical Flexibility	Academic Performance (GWA)	0.682	0.000	Reject H_0
Content Modification	Academic Performance (GWA)	0.714	0.000	Reject H_0
Technological Agility	Academic Performance (GWA)	0.595	0.000	Reject H_0
Socio-emotional Responsiveness	Academic Performance (GWA)	0.742	0.000	Reject H_0

The positive relationship between Pedagogical Flexibility and learner performance supports the relevance of responsive instructional decision-making. Teachers who possess broader instructional repertoires may be better positioned to adjust explanations, activities, pacing, and classroom organization when learners experience difficulty. Research on instructional adaptations and adaptive expertise similarly emphasizes the importance of modifying teaching according to evidence from learners and classroom situations [1-3].

Content Modification showed a stronger relationship with learner performance. This result supports the educational relevance of adjusting learning materials and tasks to learner readiness. Carefully designed instructional adaptations can support cognitive outcomes when changes are meaningfully aligned with learner needs [4]. Within a community-service context, this finding supports collaborative material-development activities that enable teachers to exchange and refine strategies for adapting content.

Technological Agility also demonstrated a significant positive relationship with learner performance, although its correlation coefficient was lower than those of the other dimensions. Technological responsiveness may contribute to learning conditions, but technology should not be interpreted as independently determining academic outcomes. Its educational value depends on the instructional purpose, availability of resources, learner access, and the manner in which teachers integrate technology into teaching.

Socio-emotional Responsiveness showed the strongest association with learner academic performance. Supportive teacher-student relationships, perceived social support, emotional engagement, and positive classroom interactions have been associated with learner engagement and academic outcomes [6-11]. The present result strengthens the rationale for including socio-emotional support as an important component of school-based teacher development.

The findings should nevertheless be interpreted as correlations. They do not establish that increasing one adaptability dimension will automatically cause improvement in academic performance. Learner achievement is influenced by multiple interacting conditions. Therefore, the results are more appropriately used to identify areas for professional support and further evaluation rather than to make direct causal claims.

4.6. Community-Service Implications

The findings provide a basis for connecting instructional assessment with teacher capacity building. Community-service activities can use the results to identify existing strengths, areas requiring reinforcement, relevant stakeholders, and appropriate forms of professional support. Because all four dimensions were positively associated with learner performance, each can be incorporated into school-based capacity-building activities while recognizing differences in the strength of the observed relationships.

The community-service priorities derived from the findings are summarized in **Table 7**. The activities focus on strengthening existing professional capacities rather than assuming that teachers lack instructional competence. Pedagogical Flexibility can be addressed through adaptive lesson planning and peer demonstration; Content Modification through collaborative development of differentiated materials; Technological Agility through practical digital-teaching support; and Socio-emotional Responsiveness through learner-support and responsive-communication activities. School heads can contribute through monitoring, feedback, and professional reflection.

Table 7. Community-service priorities derived from the instructional adaptability findings.

RESEARCH FINDING	COMMUNITY-SERVICE FOCUS	MAIN PARTICIPANTS	INTENDED CONTRIBUTION
Pedagogical Flexibility showed the lowest teacher mean among the adaptability dimensions	Adaptive lesson planning and peer demonstration	Teachers	Strengthening the use of varied instructional strategies
Content Modification received very high teacher and school-head assessments	Collaborative differentiated-material development	Teachers	Strengthening learner-responsive instructional materials
Technological Agility showed a difference between teacher and school-head assessments	Digital-teaching support and practical demonstration	Teachers	Strengthening appropriate instructional use of technology
Socio-emotional Responsiveness showed the highest assessment and strongest relationship with learner performance	Responsive communication and learner-support activities	Teachers and school heads	Reinforcing supportive classroom relationships
Continuing professional development remains relevant across dimensions	Reflection, feedback, and monitoring	Teachers and school heads	Identifying continuing professional-development needs

Community service can therefore serve as a mechanism for translating assessment into practical professional learning. The process begins with evidence concerning instructional practices, continues through targeted capacity-building activities, and includes school-based application and monitoring. Such an approach positions teachers and school heads as active participants in professional development rather than merely recipients of recommendations. Also, the strongest measured area may still benefit from community-service activities. Socio-emotional Responsiveness, for example, was already rated very highly, yet its strong relationship with learner performance makes it suitable for sharing effective practices and strengthening existing school capacities. Similarly, lower relative ratings in Pedagogical Flexibility and Technological Agility can guide professional reflection without being interpreted automatically as instructional deficiencies.

4.7. Integrated School-Based Community Service

The results demonstrate how school-based assessment can inform community-service priorities. Teacher profiles provide information concerning professional preparation, experience, and training participation. The adaptability assessment identifies patterns across pedagogical, content-related, technological, and socio-emotional dimensions. Correlation analysis then provides evidence regarding how these dimensions are associated with learner

academic performance. These components can be integrated through teacher workshops, collaborative preparation of instructional resources, peer demonstration, mentoring, professional reflection, and school-head monitoring. The emphasis is on evidence-informed capacity building in which community-service activities respond to findings generated within the school setting. Continuous monitoring is also important because professional development should not end after a single activity. Feedback from teachers and school heads can be used to identify continuing needs, adjust capacity-building activities, and support sustained instructional improvement. In this manner, assessment, community service, stakeholder participation, and monitoring become complementary elements of school-based professional support.

5. CONCLUSION

The study showed very high instructional adaptability among elementary-school teachers and very satisfactory learner academic performance. All adaptability dimensions were positively associated with learner performance, with Socio-emotional Responsiveness demonstrating the strongest relationship. The findings support a community-service framework centered on adaptive teaching, differentiated-material development, appropriate technology use, learner-responsive communication, stakeholder participation, and continuous monitoring. Teacher capacity building can therefore be guided by school-based evidence while maintaining the distinction between statistical association and causation. Community service provides a practical pathway for translating instructional assessment into collaborative professional development and sustained educational support.

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7. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper is free from plagiarism.

8. REFERENCES

- [1] Parsons, S. A., Vaughn, M., Scales, R. Q., Gallagher, M. A., Parsons, A. W., Davis, S. G., Pierczynski, M., and Allen, M. (2018). Teachers' instructional adaptations: A research synthesis. *Review of Educational Research*, 88(2), 205-242.
- [2] Männikkö, I., and Husu, J. (2019). Examining teachers' adaptive expertise through personal practical theories. *Teaching and Teacher Education*, 77, 126-137.
- [3] Anthony, G., Hunter, J., and Hunter, R. (2015). Prospective teachers development of adaptive expertise. *Teaching and Teacher Education*, 49, 108-117.
- [4] Deunk, M. I., Smale-Jacobse, A. E., de Boer, H., Doolaard, S., and Bosker, R. J. (2018). Effective differentiation practices: A systematic review and meta-analysis of studies on the cognitive effects of differentiation practices in primary education. *Educational Research Review*, 24, 31-54.

- [5] Tzafilkou, K., Perifanou, M., and Economides, A. A. (2023). Assessing teachers' digital competence in primary and secondary education: Applying a new instrument to integrate pedagogical and professional elements for digital education. *Education and Information Technologies*, 28, 16017-16040.
- [6] Zhang, H., Yang, J., and Liu, Z. (2024). Effect of teachers' teaching strategies on students' learning engagement: Moderated mediation model. *Frontiers in Psychology*, 15, 1475048.
- [7] Liu, X. (2024). Effect of teacher-student relationship on academic engagement: The mediating roles of perceived social support and academic pressure. *Frontiers in Psychology*, 15, 1331667.
- [8] Skae, V. A., Brown, B. J. L., and Wilmot, P. D. (2020). Teachers' engagement with learners in inclusive foundation phase classrooms. *South African Journal of Childhood Education*, 10(1), 1-11.
- [9] Tu, Y., Wang, Q., and Huang, C. (2025). Facilitating students' emotional engagement in synchronous online learning: A systematic literature review. *The International Review of Research in Open and Distributed Learning*, 26(1), 261-282.
- [10] Ansong, D., Okumu, M., Amoako, E. O., Appiah-Kubi, J., Ampomah, A. O., Koomson, I., and Hamilton, E. (2024). The role of teacher support in students' academic performance in low- and high-stakes assessments. *Learning and Individual Differences*, 109, 102396.
- [11] Zhou, J., Gong, X., and Li, X. (2024). Longitudinal relations between teacher support and academic achievement among Chinese children: Disentangling between- and within-student associations. *Journal of School Psychology*, 103, 101287.
- [12] Moran, R. M. R., Robertson, L., Tai, C., Ward, N. A., and Price, J. (2023). Developing pre-service teachers' adaptive expertise through STEM-CT integration in professional development and residency placements. *Frontiers in Education*, 8, 1267459.
- [13] Cho, K., Tsuda, E., and Ward, P. (2024). Developing adaptive teaching competence in preservice physical education teachers. *European Physical Education Review*, 30(4), 638-649.
- [14] Bhardwaj, V., Zhang, S., Tan, Y. Q., and Pandey, V. (2025). Redefining learning: Student-centered strategies for academic and personal growth. *Frontiers in Education*, 10, 1518602.
- [15] Istijanto, I., and Nathalie, C. C. (2024). Factors influencing student engagement and intention to attend lectures. *Cogent Education*, 11(1), 2415287