

Assessing the Impact of Siquijor State College's Education Literacy and Greening Programs at a Philippine Elementary School

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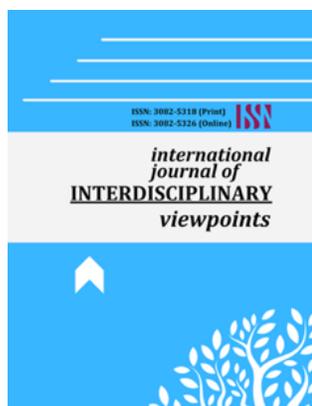
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ABSTRACT

Educational extension programs are expected to show that they do more than finish activities. They are also expected to deliver real benefits to student growth and the long-term survival of communities, especially in rural areas with limited resources. The College of Education Extension Program of Siquijor State College was run at Nabutay Elementary School in Maria, Siquijor, from 2018 to 2024. The program included teaching journalism, improving math skills, growing worms for food, and planting trees to meet the area's educational and environmental needs. A contribution-oriented impact assessment method was used to analyze data from semi-structured interviews with students, teachers, and parents to examine changes resulting from their involvement in the program. The results show that functional literacy and numeracy have improved, learner self-efficacy has gone up, and environmentally friendly habits have become more common. Experiential learning is a key way to put information into practice. Instead of claiming direct cause and effect, the study shows how community-based extension programs can help students improve their skills by interacting with program activities, participant experiences, and local contexts. It also shows how important it is to use qualitative, contribution-based evaluation when creating flexible and long-lasting educational extension programs.

Keywords

impact assessment; educational extension; experiential learning; literacy and numeracy; environmental education

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INTRODUCTION

Education is becoming more and more seen as more than just an end in itself. It is also seen as a key way to build skills, especially in places with structural inequality and limited access to high-quality learning tools (Hanushek & Woessmann, 2007). In many low- and middle-income countries, ongoing gaps in literacy, numeracy, and environmental knowledge keep people from developing their skills and from breaking out of cycles of poverty and exclusion (Cree et al., 2022). In the Philippines, these problems are especially evident in rural and remote areas, where schools often lack sufficient teaching materials, and students have fewer opportunities to learn through experience and context (OECD, 202<). Teachers in these situations often have to deal with tough workloads caused by being far away, limited resources, and having to change how they teach to meet the needs of all their students (Alamansa & Sinang, 2021). The daily lives of teachers in the K–12 system also show that it is hard to keep up useful lessons while meeting school needs and addressing classroom differences (Cariaga et al., 2021). National and international tests continue to show uneven growth in students' basic skills, even as reforms are ongoing. The Programme for International Student Assessment (PISA) found that students improved slightly in their understanding of what they read but worsened slightly in their understanding of math and science from 2003 to 2022 (OECD, 2022).

To improve learning outcomes, the educational ecosystem as a whole needs to be strengthened, not just classroom teaching. A study by Abonero and Guhao (2026) shows that institutional factors, such as relational leadership, collaborative professional cultures, and effective internal communication, significantly impact teachers' job commitment and the school's overall performance. Nini and Guhao (2026) also say that teachers are more engaged at work when they work in schools with supporting communities, when organizational processes are clear, and when quality management practices support teachers' professional motivation and well-being. At the same time, education is closely connected to broader social and familial contexts that shape students' engagement and success in school. Filipino students' studies show that parental involvement is important for keeping them motivated and doing well in school (Cariaga & Gerodias, 2025), and phenomenological accounts of parents in rural areas show how their social situations affect their involvement in school (Cariaga, 2025). Also, educators face professional and personal pressures that overlap, such as balancing work and family responsibilities, especially for women and single mothers working in schools (Balogbog & Sinang, 202). These interconnected processes show that educational outcomes occur when institutional, family, and community support work together.

Higher education institutions (HEIs) are being asked more and more to do more than teach and conduct research in response to these structural and contextual problems. They are being asked to do community-based educational interventions. Increasing literacy, building practical skills, and encouraging social responsibility are among the important ways colleges support grassroots development through extension programs. Ofino et al. (2026) say that programs that teach people to use computers and other technologies (ICT) can help

communities become more independent and socially grow in rural areas where access to technology is still limited. Caballero and Morre (2026) note that education research also shows the importance of developing both cognitive and non-cognitive skills, such as grit, awareness, and reflective learning. These skills help teachers be more effective, and students be more interested in learning. Even though educational extension work is getting more attention, many evaluations are still very output- or quantitatively driven, focusing on what can be measured rather than the broader changes that result from community-based involvement. Earlier research has examined how teachers can be held accountable through systems such as the Results-Based Performance Management System (RPMS) (Baynosa & Simpall, 2025) and how constructivist methods can be used in online classrooms (Cariaga, 2025). There have not been many qualitative studies examining how integrated, multi-component extension programs affect students' self-efficacy, functional skills, and environmental knowledge in the rural Philippines.

Instead of relying solely on attribution-based models, the modern evaluation literature is advocating methods that consider contributions and acknowledge the complexity of educational change (Mayne, 2012; Rossi et al., 2003). From this point of view, the effect comes from how the program inputs, participant engagement, and the environment change over time. Based on this idea, from 2018 to 2024, the College of Education (COE) at Siquijor State College ran a variety of extension programs at Nabutay Elementary School in the Maria Municipality, Siquijor. The program was made to meet the needs of the local community. It included workshops on writing, math, vermiculture, and planting trees. All of these activities were based on the idea of experiential learning, which stresses reflection, participation, and use in the real world (Kolb, 1984). Literacy and numeracy interventions have mostly been studied in urban or well-resourced settings in the past. However, there are few qualitative evaluations of integrated extension programs in remote areas. This gap underscores the importance of understanding how experiential learning can help students develop all aspects of their lives, including their confidence, practical skills, and environmental stewardship. It is also important to know how these skills develop in real life (Pilgrim & Martinez, 2013). To fill this gap, this study examines how the Siquijor State College College of Education Extension Program at Nabutay Elementary School affected students' skills, confidence, and daily lives by asking students, parents, and teachers about their experiences with journalism, math, and environmental projects. The study builds on contribution analysis (Mayne, 2012) and experiential learning theory (Kolb, 1984). It adds to the growing body of research on community-rooted educational extension. It helps policymakers, higher education institutions, and extension workers develop programs that meet community needs and support long-term growth (Rossi et al., 2003).

MATERIALS AND METHODS

Design

This study employed a qualitative impact assessment design to examine how the College of Education Extension Program of Siquijor State College contributed to changes in learners' competencies, confidence levels, and environmental practices at Nabutay Elementary School. Qualitative approaches are appropriate for impact assessment in educational extension contexts where the results are related to complex, process-oriented changes—skill development, value formation, and behavioral shifts—and thus cannot easily be captured solely through quantitative indicators (Rossi et al., 2003). It did not evaluate causal attribution *per se* but rather approached the issue with the perspective that change emerges as a result of interactions between interventions and participants within their own contexts, rather than through the direct impact of programs on participants (Mayne, 2012). In this manner, the study is in tune with current thinking in evaluation: program evaluation is better understood as determining how and why programs contribute to certain results in real-life cases (Rossi et al., 2003).

Research Locale and Participants

The COE Extension Project took place for a period of six years, from SY 2018 up to SY 2024, at Nabutay Elementary School, Maria, Siquijor. Locally perceived needs served as the design foundations of the program, with four major inclusions: journalism practice, numeracy enhancement, vermiculture production, and tree planting. These interventions practiced the experiential learning mode, valuing active engagement through volunteerism in the learning process, reflection, and application in real-world situations (Kolb, 1984). By and large, it sought to extend classroom instruction in order to help students gain real-life competencies, foster intrinsic motivation, and become more concerned about the environment.

Sampling

Purposive sampling, believed to be an appropriate strategy for qualitative inquiry that calls for information-rich cases in illuminating program effects, was employed to select participants (Patton, 2015). There were a total of 17 individuals who participated in the research. The study included 10 students, 5 teachers, and 2 parents who were directly involved in or had prolonged exposure to the extension program. This potentially enabled different perspectives on program implementation and perceived impacts through the availability of various stakeholder groups; as a result, the depth and credibility of the data were strengthened. Judging sample adequacy was influenced by the recurrence of patterns and themes across participant interviews, indicating analytic saturation within the scope of the study (Guest et al., 2012).

Collection

Data were collected by means of semi-structured interviews. This allowed participants to share their experiences, understanding, and reflections, while providing opportunities to probe emergent perceptions. The interview guide matched the main framework of the program and focused on perceived changes in literacy and numeracy skills, confidence and participation, environmental awareness, and everyday practices following the program. The study followed ethical research standards while conducting interviews. Participants were assured of confidentiality and briefed on the purpose of the study, and they provided voluntary consent to participate. Pseudonyms were used where necessary to protect participant identities.

Validity and Reliability

A preliminary coding framework was developed inductively following repeated immersion in the transcripts. First-cycle coding involved open coding of participant narratives to identify discrete units of meaning related to literacy development, numeracy application, environmental practice, confidence, and learning processes. These initial codes were clustered into axial categories reflecting capability enhancement, behavioral internalization, and experiential mechanisms. A reflexive codebook was maintained throughout analysis, documenting code definitions, inclusion–exclusion criteria, and illustrative excerpts. Iterative comparison across stakeholder groups enabled pattern verification and refinement of thematic boundaries. Interviews ranged from 30 to 50 minutes in duration. Analytic sufficiency was determined not solely by saturation but by thematic coherence across stakeholder categories and the stability of contribution pathways identified. An audit trail was preserved, including coding memos, theme development matrices, and analytic decision logs, to enhance transparency and dependability.

Trustworthiness and Rigor

The study ensured trustworthiness through strategies addressing credibility, dependability, and confirmability (Lincoln & Guba, 1985). Credibility was supported through prolonged engagement at the research site, combined with triangulation of participant accounts. Dependability was strengthened by maintaining an audit trail of data collection and analysis decisions. Confirmability was supported by grounding interpretations, as far as possible, in participant narratives and by maintaining reflexive awareness of potential researcher bias (Lincoln & Guba, 1985).

Data Analysis

Interview data were analyzed using thematic analysis, following a systematic and iterative process of familiarization, coding, theme development, and interpretation (Braun & Clarke, 2006). Initial codes were generated inductively through close engagement with the data, focusing on recurring patterns related to learning, confidence, and changes in behavior. These codes were then merged into broader themes reflective of the program and its contribution to educational and environmental outcomes. The analysis was strengthened through triangulation of student, instructor, and parent perspectives to reduce single-source bias and enhance interpretive validity (Patton, 2015). The analysis focused not only on outcomes but also on the processes of change as described by participants, consistent with qualitative impact assessment principles (Rossi et al., 2003).

Ethical Considerations

The study strictly adhered to established ethical research standards. Consistent with qualitative impact assessment practice, the study acknowledges limitations. Given the small, context-specific sample, the generalizability of the findings beyond similar rural educational settings is limited. The absence of a counterfactual comparison further implies that direct causal attribution is not warranted (Mayne, 2012). Nevertheless, the findings provide analytically grounded insights into how community-based extension programs can contribute to learner development and ecological awareness-building in resource-limited contexts (Rossi et al., 2003).

RESULTS AND DISCUSSION

Table 1 summarizes the contribution pathways of the SSC–COE Extension Program, outlining the relationships between program components, observed outcomes, and indicative impacts as derived from participant accounts. The results are organized thematically according to the program’s core intervention areas and are interpreted through a contribution-based impact assessment lens (Mayne, 2012; Rossi et al., 2003).

Table 1. Contribution Pathways of the SSC–COE Extension Program

Program Component	Immediate Outputs	Observed Outcomes	Indicative Impacts (Contribution-Based)	Primary Evidence Sources
Journalism Training	Workshops on news writing, feature writing, and school journalism; guided writing exercises.	Improved writing organization, clarity, and communication skills; increased learner confidence and participation in school publications	Enhanced learner self-efficacy, academic engagement, and readiness for competitive academic activities	Student interviews; teacher observations
Numeracy Training	Mathematics enrichment sessions emphasizing real-life applications and problem-solving	Improved computational skills; increased ability to apply mathematics to daily and practical contexts; improved classroom performance	Strengthened functional numeracy and problem-solving capability supporting everyday decision-making	Student interviews; teacher accounts
Vermiculture Production Training	Training on composting, vermicompost production, and organic waste management	Adoption of sustainable gardening practices at household and school levels; increased awareness of waste reduction	Development of environmentally responsible behaviors and practical sustainability skills	Student, parent, and teacher interviews
Tree Planting Activities	Tree planting and seedling maintenance activities in school and community spaces	Increased environmental awareness; active participation in greening initiatives; continued care for planted trees	Sustained ecological consciousness and pro-environmental attitudes among learners	Student and parent interviews; teacher observations

Theme 1: Development of Literacy Skills and Learner Self-Efficacy through Journalism Training

Student responses indicated positive developments in literacy skills, particularly in composing more logically organized texts, producing more coherent narratives, and applying basic journalistic conventions. These improvements were largely attributed to repeated guided writing exercises and hands-on workshop activities—features commonly associated with experiential, skills-based literacy instruction (Kolb, 1984; Pilgrim & Martinez, 2013). One student reflected: *“Before the training, I was shy to write because I did not know how to organize my ideas. After the workshops, I learned how to structure my news articles, and I felt more confident submitting my work to the school paper.”* A teacher similarly noted: *“We noticed that those who joined the journalism sessions began volunteering more in class and were more willing to participate in academic contests.”*

Teachers likewise observed increased student participation in school publications and classroom writing activities. They noted that the training extended beyond technical competence, contributing to greater self-confidence in public communication and increased willingness to participate in academic competitions and assume new roles within the school. These observations are consistent with previous research highlighting the relationship between learner self-efficacy and academic engagement (Akbari & Sahibzada, 2020). Importantly, the reported improvements extended beyond the training context. Participants indicated that enhanced writing skills were applied in regular academic tasks and co-curricular engagements, suggesting learning transfer—an important indicator of meaningful educational impact (Rossi et al., 2003). While direct causal attribution cannot be claimed, the convergence of student and teacher perspectives suggests that the journalism intervention contributed to the development of literacy-related capabilities.

Theme 2: Empowering Functional Numeracy and Problem-Solving Skills

Findings suggest that the numeracy training contributed to improved understanding of mathematics and its application to everyday problem-solving. Students demonstrated enhanced ability to perform practical calculations related to budgeting, computing change, and basic arithmetic, indicating a shift from rote computation toward functional numeracy. A participating student shared: *“Now I can compute change in the store without guessing. I also help my parents when budgeting small expenses.”* A teacher observed: *“Their fear of mathematics lessened. They started asking questions instead of avoiding the subject.”* Teachers observed corresponding improvements in classroom participation and confidence in mathematics-related tasks. These observations align with studies showing that contextualized and real-life mathematics instruction supports both competency development and learner engagement (Hanushek & Woessmann, 2007; Nguyen, 2023). From a contribution-based

perspective, the numeracy component appears to have supported the development of practical problem-solving capacities with relevance beyond academic performance alone. Although multiple factors may have influenced these outcomes, participant narratives consistently identified the extension activities as a meaningful enabling factor, supporting a contribution-oriented interpretation of impact (Mayne, 2012).

Theme 3: Adoption of Sustainable Practices through Vermiculture Training

Participants reported that vermiculture training contributed to increased awareness of waste management and sustainable gardening practices. Students and parents indicated that composting techniques introduced during the program were applied at home, leading to reduced organic waste and improved soil quality in household gardens. These accounts point to behavioral change rather than short-term knowledge acquisition. A parent explained: *“My child taught us how to separate waste and use the compost for our garden. We are still doing it until now.”* Experiential engagement and continued practice facilitated understanding and sustained application, reinforcing the role of experiential learning in environmental education (Kolb, 1984). Prior studies similarly identify schools as effective sites for cultivating environmental responsibility through applied vermicomposting activities (Muhfahroyin & Zen, 2024). Although broader environmental behavior is shaped by social and cultural factors, the consistency of reported practices across participant groups suggests that the training contributed to meaningful changes in environmentally responsible habits, consistent with qualitative indicators of sustainability education impact (Rossi et al., 2003).

Theme 4: Development of Environmental Awareness and Pro-Environmental Attitudes through Tree Planting

Tree planting activities were widely described as formative experiences that increased participants’ environmental awareness and sense of responsibility toward ecological conservation. Participants demonstrated greater understanding of the role of trees in mitigating environmental risks and expressed a sense of ownership over the planted seedlings. A student stated: *“When we planted the trees, we did not just leave them. We check them regularly. It feels like it is our responsibility.”* Teachers and parents observed that students continued to monitor and care for the trees after the initial activity, indicating internalization of pro-environmental attitudes rather than temporary compliance. Sustained engagement of this nature is recognized as a key indicator of effective environmental education. From a contribution-oriented evaluation perspective, these findings suggest that the tree planting activities supported longer-term environmental stewardship among learners by fostering ecological consciousness and responsible action (Mayne, 2012).

Cross-Cutting Observations

Across all program components, a recurring pattern emerged: experiential engagement facilitated the translation of knowledge into practice. Participants consistently identified hands-on involvement as central to skill internalization, confidence development, and behavioral change. The convergence of student, teacher, and parent perspectives strengthens the credibility of these findings and aligns with established trustworthiness criteria in qualitative impact assessment.

Divergent and Moderating Perspectives

While the majority of participants reported positive outcomes, a small number indicated that sustained engagement was influenced by external constraints such as household responsibilities and limited material resources. One participant noted that maintaining vermiculture practices required consistent effort that was occasionally interrupted by competing academic and domestic demands. These moderating factors suggest that program contribution operates within broader socio-economic conditions that may facilitate or constrain sustained behavioral change. Acknowledging these nuances strengthens interpretive balance and mitigates confirmation bias within qualitative impact assessment. Interpreted through a contribution-based evaluation lens, the findings illuminate how integrated extension interventions facilitated interconnected dimensions of capability development across literacy, numeracy, and environmental engagement. Rather than operating as discrete skill-enhancement activities, the program components functioned as mutually reinforcing mechanisms through which experiential learning translated into sustained behavioral and attitudinal change.

Educational Extension and Capability Building

The findings suggest that the impact of the SSC–COE Extension Program manifested primarily in capability building rather than in isolated or short-term outputs. Improvements in writing proficiency, functional numeracy, and engagement in environmental conservation were consistently associated with experiential and applied learning processes. These observations align with broader educational literature emphasizing that learning becomes meaningful when learners actively engage with content and apply knowledge in real-world contexts (Kolb, 1984; Pilgrim & Martinez, 2013). Extension interventions enabled learners to bridge traditional classroom instruction with contextualized experiences drawn from journalism practice, real-life mathematical reasoning, and hands-on environmental activities. These processes supported the development of transferable skills and practical competencies, reinforcing the role of experiential learning in community-based educational extension (Rossi et al., 2003). The outcomes further indicate a shift in learner capability attributable to the integration of experiential learning within the community extension strategy, suggesting that learning gains extended beyond formal instruction into everyday academic and social contexts.

Learner Self-Efficacy as a Mediating Mechanism

A salient theme emerging from the findings is the mediating role of learner self-efficacy in program impact. Participants frequently linked improvements in competence with increased confidence, willingness to engage, and readiness to participate in academic and extracurricular activities. This relationship is well documented in the literature, which identifies self-efficacy as a key determinant of learner motivation, persistence, and performance (Akbari & Sahibzada, 2020). The journalism and numeracy components, in particular, appear to have fostered confidence through structured yet supportive opportunities for repeated success. Rather than treating confidence as a secondary outcome, the findings suggest that self-efficacy functioned as a mechanism through which learning outcomes translated into broader academic engagement. For extension practitioners, this underscores the importance of intentionally designing interventions that cultivate confidence alongside technical skills relevant to community and learner productivity.

Experiential Learning and the Sustainability of Educational Impact

The environmental components of the program—vermiculture production and tree planting—provide insight into the sustainability of educational impact. Continued composting practices and sustained care for planted trees indicate that learning was internalized and translated into everyday behavior. Such sustained actions align with established indicators of meaningful impact in environmental education, where long-term attitudinal and behavioral change is prioritized over short-term awareness (Muhfahroyin & Zen, 2024). Experiential learning principles facilitated metacognitive engagement with environmental practices, enabling participants to develop habits and attitudes through direct involvement. This approach is particularly relevant in rural and resource-limited contexts, where environmental responsibility is closely linked to individual and community well-being.

Theoretical Contribution to Educational Extension Impact Scholarship

This study extends the contribution analysis scholarship by demonstrating how experiential extension programs may function as mediating environments for capability formation in rural educational settings. While contribution analysis traditionally focuses on plausibility

chains between intervention and outcome (Mayne, 2012), the present findings illustrate how learner self-efficacy and experiential internalization operate as intermediate mechanisms linking program design to sustained behavioral change. The integration of literacy, numeracy, and environmental practice within a single extension framework further suggests that capability development is not domain-specific but relational and cumulative. Rather than treating academic and environmental competencies as discrete outcomes, the findings indicate that experiential extension may generate interconnected capability clusters. Conceptually, this contributes to educational extension theory by foregrounding experiential mediation and self-efficacy as central explanatory constructs within contribution-based impact evaluation.

Implications for Impact Assessment Scholarship

The findings demonstrate the utility of qualitative impact assessment in capturing process-oriented and context-sensitive forms of change. A contribution-oriented evaluation approach allows for analytical explanations of program effects without overstating causal attribution, thereby providing a more realistic account of how educational extension initiatives operate in practice (Rossi et al., 2003). Triangulation of student, teacher, and parent perspectives further strengthens the credibility of the findings and aligns with best practices in qualitative evaluation, particularly in settings where experimental or counterfactual designs are not feasible (Lincoln & Guba, 1985; Patton, 2015). In this regard, the study offers a viable model for evaluating educational extension impact in comparable contexts.

Implications for Higher Education Extension Practice and Policy

The findings highlight important implications for higher education institutions engaged in extension activities. Integrated, multi-component interventions addressing academic, personal, and environmental development appear to enhance the sustainability and relevance of program impact. Grounding extension initiatives in experiential learning principles further strengthens their potential to generate lasting outcomes. The study also points to the importance of collaboration and communication between schools and professional partners. Such partnerships can provide mentorship, guidance, and community-based support, contributing to a culture of professionalism and sustained learner engagement.

Limitations and Directions for Further Research

The study acknowledges certain limitations. Its focus on specific behavioral and capability-related outcomes limits the scope of analysis to selected dimensions of learner development. Other areas influenced by classroom and institutional dynamics were not examined. Future research may benefit from longitudinal designs, mixed-method approaches, or comparative studies across multiple extension sites. Examining long-term learner trajectories would further deepen understanding of sustained educational and environmental impacts. Although context-specific, the analytical patterns identified—experiential mediation, capability clustering, and self-efficacy reinforcement—may offer transferable insights for extension initiatives in similarly rural, resource-constrained educational environments. Transferability is therefore grounded not in statistical generalization but in analytic generalization to comparable socio-educational contexts.

Contribution to Scholarship

Overall, this research contributes to the literature on educational extension and impact assessment by illustrating how qualitative, contribution-oriented approaches can illuminate the mechanisms through which community-based programs support learner development and sustainability. By foregrounding participant experiences and experiential learning processes, the study advances a nuanced and empirically grounded understanding of educational impact.

Conclusion and Recommendations

This research finds that combined educational extension programs based on hands-on learning can help students' overall growth in rural areas. Through the COE Extension Program at Siquijor State College, participants improved their literacy and numeracy skills, learner self-efficacy, and environmental knowledge. The program also included journalism training, activities to improve math skills, and activities to improve the environment. While the results don't prove a clear link between the variables, they do show how community-based extension programs can help people put their knowledge, skills, and values into practice in their daily lives by encouraging participation and providing relevant learning opportunities. Getting opinions from students, teachers, and parents all in one place supports the program's ability to help build skills. It shows how important it is to use qualitative, contribution-based evaluation to understand major changes in education fully.

Higher education institutions should improve the planning and implementation of extension programs by using interdisciplinary, situation-specific methods that combine the development of academic skills with support for the community and the environment. Universities should also make impact-oriented review practices official, including qualitative methods, better to document the process-based and long-term results of extension work. Long-term relationships with local schools and communities may be beneficial for future programs, as they help maintain the continuity and scalability of interventions. Researchers should use longitudinal and mixed-method designs in future studies to examine how long learner effects persist and how extension programs affect different communities. Such efforts can help people make better decisions based on facts and strengthen the role of higher education institutions as active partners in promoting open and long-lasting educational development.

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Conflicting Interest

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Contribution

The authors contributed to the overall conduct and writing of the study.

References

- Abonero, C., & Guhao, E. J. (2026). The Combined Mediating Effects of Collaborative Practices and Internal Communication Satisfaction on the Relationship Between Relational Leadership of School Heads and Organizational Commitment in Public Elementary Schools. *International Journal of Interdisciplinary Viewpoints*, 2(2), 19–27. <https://doi.org/10.64612/ijivv2i2.80>
- Akbari, O., & Sahibzada, J. (2020). Students' self-confidence and its impacts on their learning process. *American International Journal of Social Science Research*, 5(1), 1–15. <https://doi.org/10.46281/aijssr.v5i1.462>
- Alamansa, R., & Sinang, A. (2025). Teachers Assigned in Remote Schools: A Phenomenology. *International Journal of Interdisciplinary Viewpoints*, 1(6), 743–746. <https://doi.org/10.64612/ijivv1i6.77>
- Balogbog, H., & Sinang, A. (2026). Navigating Work-life Balance in Academia: Challenges and Triumphs of Single Mothers. *International Journal of Interdisciplinary Viewpoints*, 2(1), 26–36. <https://doi.org/10.64612/ijivv2i1.62>

- Baynosa, R., & Simal, E. A. (2025). Competence and Challenges of Public Elementary Teachers on Results-Based Performance Management System (RPMS). *International Journal of Educational Viewpoints*, 1(1), 1–17.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Caballero, R., & Morre, M. J. (2026). Investigating Grit and Mindfulness in Teaching as Predictors of Teaching Effectiveness of Math Pre-Service Teachers. *International Journal of Interdisciplinary Viewpoints*, 2(1), 42–48. <https://doi.org/10.64612/ijiv.v2i1.64>
- Cariaga, R. (2025). Constructivism in Online Learning: A Qualitative Thematic Meta-Synthesis. *International Journal of Interdisciplinary Viewpoints*, 1(6), 727–731. <https://doi.org/10.64612/ijiv.v1i6.53>
- Cariaga, R. (2025). Listening from the Margins: A Phenomenological Inquiry into Parents' Lived Experiences of School Involvement in Rural Philippine Communities. *International Journal of Educational Viewpoints*, 1(1), 42–46.
- Cariaga, R., & Gerodias, E. (2025). More Than Homework Help: Filipino Secondary Students' Lived Experiences of Parental Involvement and Academic Performance. *International Journal of Educational Viewpoints*, 1(1), 35–41.
- Cariaga, R., Sabidalas, M. A., Dagunan, M. A., Refugio, C., Cariaga, V., Gerodias, E., & Cubero, G. (2025). Challenges of Pre-service Teachers in K–12 Classrooms: An Explanatory Case Study. *International Journal of Interdisciplinary Viewpoints*, 1(6), 732–737. <https://doi.org/10.64612/ijiv.v1i6.54>
- Cofino, C., Tee, S. M., Alegre, G., Atillo, G. N., & De La Peña, D. (2026). The Role of ICT Literacy Training in Advancing Social Development and Empowerment in Rural Farming Communities. *International Journal of Interdisciplinary Viewpoints*, 2(1), 49–54. <https://doi.org/10.64612/ijiv.v2i1.65>
- Cree, A., Kay, A., & Steward, J. (2012). The economic and social cost of illiteracy: A snapshot of illiteracy in a global context. World Literacy Foundation.
- Guest, G., Bunce, A., & Johnson, L. (2012). *Applied thematic analysis*. SAGE Publications.
- Hanushek, E. A., & Woessmann, L. (2007). The role of education quality for economic growth. World Bank Policy Research Working Paper, No. 4122. World Bank.
- Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT press.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
- Mayne, J. (2012). Contribution analysis: Coming of age? *Evaluation*, 18(3), 270–280. <https://doi.org/10.1177/1356389012451663>
- Muhfahroyin, M., & Zen, S. (2024). Students' perceptions of the vermicompost as a potential contextual learning resource. *Research and Development in Education (RaDEn)*, 4(1), Article 33891. <https://doi.org/10.22219/raden.v4i1.33891>
- Nguyen, T. D. (2023). Realistic mathematics education and authentic learning: A combination of teaching mathematics in high schools. *Journal of Mathematics and Science Teacher*, 3(1), Article em029. <https://doi.org/10.29333/mathsciteacher/13061>
- Nini, J., & Guhao, E. J. (2026). The Influence of Sense of Community, Sense of Coherence, and Total Quality Management on Work Engagement Among Public Schools Teachers: A Path Model Analysis. *International Journal of Interdisciplinary Viewpoints*, 2(2), 9–18. <https://doi.org/10.64612/ijiv.v2i2.79>
- OECD. (2023). PISA 2022 results (Volume I): The state of learning and equity in education. OECD Publishing. <https://doi.org/10.1787/53f23881-en>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). SAGE Publications.
- Pilgrim, J., & Martinez, E. E. (2013). Defining Literacy in the 21st Century: A guide to Terminology and Skills. *Texas Journal of Literacy Education*, 1(1), 60–69.
- Rossi, P. H., Lipsey, M. W., & Freeman, H. E. (2003). *Evaluation: A systematic approach*. Sage publications.