International Journal of Innovative Research in Education

Volume 12, Issue 2, (2025) 85-93

www.ijire.eu

Design and development of project EmpowerED: Elevating educators for excellence

Rhea Jeanette S. Avancena [a1], University of Southeastern Philippines, Bo. Obrero, Iñigo St, Poblacion District, Davao City, 8000 Davao del Sur, Philippines, rjsavancena00432@usep.edu.ph
Hanna Jane G. Costillas [b], University of Southeastern Philippines, Bo. Obrero, Iñigo St, Poblacion District, Davao City, 8000 Davao del Sur, Philippines, hjgcostillas00175@usep.edu.ph
Sarah V. Maito [c], University of Southeastern Philippines, Bo. Obrero, Iñigo St, Poblacion District, Davao City, 8000 Davao del Sur, Philippines, svmaito00076@usep.edu.ph
Honey Girl V. Sucnaan [d], University of Southeastern Philippines, Bo. Obrero, Iñigo St, Poblacion District, Davao City, 8000 Davao del Sur, Philippines, hgvsucnaan00401@usep.edu.ph
Michael B. Dodongan [e], University of Southeastern Philippines, Bo. Obrero, Iñigo St, Poblacion District, Davao City, 8000 Davao del Sur, Philippines, mb.dodongan@usep.edu.ph

Suggested Citation:
Avancena, R. J. S., Costillas, H. J. G., Maito, S. V., Sucnaan, H. G. V., & Dodongan, M.B. (2025). Design and development of project EmpowerED: Elevating educators for excellence. *International Journal of Innovative Research in Education, 12*(2), 85-93. https://doi.org/10.18844/ijire.v12i2.9797

Received from April 14, 2025; revised from August 20, 2025; accepted from December 20, 2025.
Selection and peer review under the responsibility of Prof. Dr. Zehra Ozcinar, Ataturk Teacher Training Academy, Cyprus

Abstract

This study responds to persistent challenges faced by secondary school teachers in addressing diverse learner needs, strengthening content mastery, and integrating technology effectively in classroom instruction. Despite the availability of professional standards and competency frameworks, gaps remain between reported competencies and actual instructional practices, particularly in inclusive teaching and technology use. The study aimed to assess teacher competencies using the Philippine Professional Standards for Teachers and the Technological Pedagogical and Content Knowledge framework and to develop a responsive professional development plan. An explanatory sequential mixed methods design was employed, involving a survey of 147 secondary school teachers teaching English, Mathematics, and Filipino, followed by interviews with 8 secondary school teachers and 5 master teachers from the same subject areas. Quantitative findings indicated high to very high levels of competency across most domains. However, qualitative results revealed substantial challenges related to limited training opportunities, insufficient instructional resources, difficulties in addressing learner diversity, and ineffective technology integration. The divergence between quantitative and qualitative findings highlights a critical gap between perceived competence and instructional realities. In response, Project EmpowerED was designed as a targeted professional development initiative aligned with both frameworks to enhance subject mastery, inclusive teaching practices, and meaningful technology integration. The study underscores the importance of sustained and practice based professional development to strengthen teacher effectiveness and improve classroom instruction.

Keywords: Inclusive teaching; project EmpowerED; professional development; teacher competence; TPACK; teaching standards.

* ADDRESS FOR CORRESPONDENCE: Rhea Jeanette S. Avanceña, University of Southeastern Philippines , Bo. Obrero, Iñigo St, Poblacion District, Davao City, 8000 Davao del Sur, Philippines. *E-mail address*: rjsavancena00432@usep.edu.ph

1. INTRODUCTION

Teachers served as the foundation of quality education, holding significant influence over student learning, development, and academic success. Their role extended beyond the delivery of content, as they helped create dynamic learning environments, nurtured critical thinking, and supported diverse learner needs (Teacher of Tomorrow, 2025). As education continued to evolve, especially with the integration of technology and innovative teaching strategies, teachers played an increasingly vital role in ensuring that education remained accessible, relevant, and meaningful (Ren et al., 2025; Salehi, 2025). The effectiveness of any education program depends largely on how skilled and prepared teachers are (Delelis, 2019). This highlighted the need for teachers who are well-trained, knowledgeable, and supported by ongoing professional development.

Globally, teachers are facing serious challenges. They are facing significant challenges in meeting students' needs due to inadequate time and resources, with a compounded lack of support staff and materials further hindering their ability to effectively assist struggling learners (Merga et al., 2021). They also struggled with classroom management, differentiated instruction, and addressing learner diversity (Sharma, 2023; Tang & Zhang, 2024).

Even with reforms guided by the Philippine Professional Standards for Teachers (PPST), many educators in the Philippines continue to struggle with content mastery and effective integration of ICT in classroom instruction. Limited access to professional development opportunities, coupled with persistent issues such as insufficient in-service training and unclear career progression pathways (Sinsay-Villanueva & Orbeta, 2023), further constrain their growth. These gaps undermine teachers' capacity to adapt to the evolving demands of modern classrooms and to deliver instruction that meets today's educational standards (Casilao et al., 2025).

Local schools continue to face challenges in effectively implementing support programs such as "Catch-Up Fridays," largely due to teachers' limited access to adequate training and the lack of essential resources, including teaching materials, digital tools, and efficient administrative systems. These constraints not only hinder student learning and academic progress but also negatively impact teacher well-being (Requillo et al., 2024).

Several recent studies have explored the intersection of TPACK and the Philippine Professional Standards for Teachers (PPST), yet many remain limited in practical application. For instance, Anud & Caro (2022) studied the relationship between teachers' self-confidence in TPACK and their performance based on PPST. Although this research linked TPACK to teacher performance, it lacks proposals or programs to address the weaknesses identified. Similarly, Abuan et al. (2024) introduced a theoretical framework that combined TPACK with selected PPST domains. While the model was insightful, it remained conceptual and did not offer any practical training strategies or development plans. These studies clearly showed that there was a need for studies that not only assessed teachers' current competencies but also created programs that directly helped them grow in these areas.

To effectively address these challenges, there is a strong need for structured, practical, and continuous professional development programs. A well-designed, sustainable training model can improve both teaching practices and student achievement (Anggraeni & Budiyono, 2017). Thus, this study proposed the development of Project EmpowerED: Elevating Educators for Excellence. This was a professional development program aimed at helping teachers deliver instruction more effectively by addressing current gaps in teaching practices and equipping them for modern, innovative approaches.

1.1. Purpose of study

This project focused on creating a sustainable and responsive training model that supports both short-term teaching needs and long-term professional growth. By aligning with PPST and TPACK, this initiative aimed to enhance teachers' content mastery, improve their use of technology in teaching, and promote more engaging and effective learning experiences for students.

Hence, this study aimed to answer the following queries:

1. What is the level of PPST of teachers?
2. What is the level of TPACK of teachers?
3. What are the struggles in addressing diverse learners, mastering content knowledge, and integrating technological knowledge?

2. METHOD AND MATERIALS

This study employed an explanatory sequential mixed-method design (Creswell, 2002), beginning with the collection and analysis of quantitative data to present a broad overview of the research problem, followed by qualitative data to provide deeper insights and explanations of the statistical results (Wipulanusat et al., 2020). The quantitative phase utilized complete enumeration sampling (Van Der Rest & Swierstra, 2022) involving all secondary Mathematics, English, and Filipino teachers in a City Division in the Philippines during the academic year 2024–2025 who met the criteria of holding Teacher I–III positions and having at least two years of teaching experience. The qualitative phase applied purposive sampling (Etikan et al., 2016) to select three Mathematics, two English, and three Filipino teachers for in-depth interviews (IDI) and master teachers from each subject area for key informant interviews (KII), ensuring participants possessed relevant expertise and contextual knowledge.

Data gathering involved securing permission from institutional authorities, obtaining informed consent from participants, administering questionnaires, and conducting IDIs and KIIs. Quantitative data were analyzed using the mean to determine teachers' competency levels across the PPST and TPACK domains, while qualitative data were analyzed through thematic analysis using Colaizzi's method to identify significant statements, meanings, and emergent themes. This combined approach allowed the researchers to capture both the breadth and depth of teacher competencies, challenges, and perspectives, ultimately informing the development of a targeted Teacher Professional Development Plan responsive to the needs of teachers.

3. RESULTS

Level of teachers' attainment of PPST. Table 1 presents the mean scores and interpretation of teachers' attainment of the Philippine Professional Standards for Teachers (PPST) competencies. This covers multiple domains of teacher performance, including Content Knowledge and Pedagogy, Learning Environment, Diversity of Learners, Curriculum and Planning, Assessment and Reporting, Community Linkages and Professional Engagement, and Personal Growth and Professional Development. Each domain was rated to reflect teachers' adherence to the PPST competencies.

Table 1

Level of teachers' attainment of PPST

PPST Indicators	Mean	Level
Domain 1: Content Knowledge and Pedagogy	4.56	Very High
Domain 2: Learning Environment	4.75	Very High
Domain 3: Diversity of Learners	4.48	High
Domain 4: Curriculum and Planning	4.67	Very High
Domain 5: Assessment and Reporting	4.63	Very High
Domain 6: Community Linkages and Professional Engagement	4.55	Very High
Domain 7: Personal Growth and Professional Development	4.65	Very High
Total Mean Score	4.61	Very High

The overall mean score across all PPST domains is 4.61, which is interpreted as very high. This indicates that teachers perceive their competence in these domains as excellent. All domains received very high ratings, with mean scores ranging from 4.48 to 4.75.

This implies that while teachers perform well overall, further development may be needed in effectively recognizing and addressing individual differences among learners. Improving teachers' responsiveness to

diverse learner needs is important to promote inclusivity, equity, and better learning outcomes. These results suggest that teachers' adherence to PPST competencies is strengthened through experience, continuous professional development, and a strong commitment to teaching excellence. Moreover, sustained training and mentorship can help bridge the gap between theory and practice, empowering teachers to apply strategies that cater to varied learning styles, abilities, and backgrounds. As education evolves, it becomes more essential for teachers to adapt and grow professionally to ensure that no learner is left behind.

These findings are supported by Awang-Hashim et al., (2019), who emphasize that teachers must continuously improve their teaching methods to support students from diverse backgrounds and learning styles. This shows that despite their high performance, teachers still need ongoing training to fully understand and assist each learner. Similarly, Leifer (2020) explains that teachers improve their inclusive teaching skills through experience, reflection, and professional development. This supports the idea that teachers' ability to meet diverse learner needs grows with constant learning. Therefore, continuous professional growth and responsiveness to student diversity are essential for teachers to promote inclusivity, equity, and effective education.

Level of teachers' TPACK. Table 2 presents the mean scores and interpretation of teachers' overall level in Technological, Pedagogical, and Content Knowledge (TPACK). This includes seven domains: Technological Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK), Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK), Technological Pedagogical Knowledge (TPK), and Technological Pedagogical and Content Knowledge (TPACK).

Table 2

Level of teachers' TPACK

TPACK Strands	Mean	Level
Technological Knowledge	4.42	High
Content Knowledge	4.49	High
Pedagogical Knowledge	4.58	Very High
Pedagogical Content Knowledge	4.54	Very High
Technological Content Knowledge	4.51	Very High
Technological Pedagogical Knowledge	4.50	Very High
Technological, Pedagogical, and Content Knowledge	4.52	Very High
Total Mean Score	4.50	Very High

The overall TPACK level of the teachers was interpreted as "very high," which reflects their strong and well-rounded competence in integrating technology, pedagogy, and content in their teaching practice. This suggests that teachers are confident in their ability to use appropriate teaching methods, apply relevant subject knowledge, and incorporate technology effectively to enhance student learning. They view themselves as well-equipped to design instruction that blends these key elements in a meaningful and coherent way.

Among all the domains, Pedagogical Knowledge emerged as the highest-rated, also interpreted as "very high." This shows that teachers feel most confident in their understanding of instructional strategies, student learning processes, and classroom management. Such a high rating underscores their strength in delivering lessons that are engaging, clear, and aligned with learners' needs.

Most of the TPACK domains, including Pedagogical Content Knowledge, Technological Content Knowledge, and Technological Pedagogical Knowledge, also received "very high" ratings, highlighting teachers' capability to merge pedagogical methods with both content and technology in a cohesive manner. However, Technological Knowledge and Content Knowledge were both interpreted as "high." This suggests that while teachers are proficient in using technology and understand their subject matter, there is still room for improvement in deepening content mastery and enhancing fluency with emerging technological tools. These findings point to the value of ongoing professional development, especially in keeping up with technological advances and reinforcing core subject knowledge.

This suggests that while teachers generally have a strong grasp of pedagogical and integrative practices, they may need more support and development in understanding specific technologies in-depth and mastering the subject matter they teach. The relatively lower score in Technological Knowledge indicates that teachers are familiar with using educational technologies but may not fully understand their technical features or advanced applications. Similarly, the lower score in Content Knowledge suggests that some teachers may not yet have a deep or thorough understanding of the subject areas they are teaching.

These findings point to the need for focused professional development that enhances teachers' technological expertise and strengthens their mastery of subject content. Training programs should emphasize how to use technology not just as a supportive tool but as a means to enrich content delivery and improve instructional strategies.

This aligns with the findings of DeCoito and Richardson (2018), who noted that while teachers feel confident in their understanding of technology, pedagogy, and content, they often view technology as an add-on rather than an integral part of the learning process. Their study highlights both internal and external barriers, such as limited access, workload, time constraints, and anxiety around technology, that hinder full integration in classroom practice. These challenges contribute to a disconnection between technology use and actual teaching practice, underscoring the need for digital literacy development among teachers.

Pathiranage and Karunaratne (2023) further support this, noting that gaps in knowledge, infrastructure, and support systems make it difficult for teachers to fully embed technology in their pedagogy. They emphasize the need for systematic support to overcome these barriers. Similarly, Abusomwan (2024) advocates for ongoing professional development to ensure that teachers are not only familiar with educational technology but can also use it to create engaging, student-centered learning environments. Institutional support plays a critical role in addressing these needs.

Regarding the lower rating in Content Knowledge, the findings align with Brunetti et al. (2024), who highlight the importance of teachers having a strong grasp of the content they are expected to teach. In many developing countries, content mastery among teachers is often overlooked, contributing to poor learning outcomes among students. A lack of deep content understanding can limit effective instruction and negatively affect students' academic performance.

In conclusion, while teachers demonstrate strong pedagogical and integrative capabilities, efforts must still be made to strengthen their foundational knowledge in content and technology. Addressing these areas through targeted training and institutional support will enhance the overall effectiveness of teaching and learning in the classroom.

Teachers' struggles in handling diverse learners. The participants were asked about their struggles in handling diverse learners. From the collected data based on their response regarding the study, three (3) core ideas emerged within Poor Inclusive Pedagogy about the struggles teachers faced in handling diverse learners, such as (1) Teaching Non-Readers, (2) Addressing Students from Diverse Backgrounds, and (3) Dealing with SPED Students.

Grounded in the empirical evidence derived from participant responses, participants faced challenges in dealing with diverse learners due to poor inclusive pedagogy. Poor inclusive pedagogy refers to the ineffective or inadequate implementation of teaching practices that aim to include and support all learners, especially those from diverse cultural, linguistic, and cognitive backgrounds (Teemant & Pinnegar, 2019). It was seen that many educators feel underprepared, lacking the skills, knowledge, support, or materials necessary to effectively teach diverse learners, particularly those with reading difficulties, special needs, and varied cultural or socioeconomic backgrounds. Without sufficient knowledge, skills, experience, and training, teachers find it difficult to design and deliver instruction that equitably addresses the needs of every learner.

Teachers' struggle in understanding difficult topics in their subject area. After careful segregation and classification of responses of the participants' struggles in understanding difficult topics in their subject area, there were two (2) essential core ideas for Poor Content Mastery. These are (1) Out-of-Field Teaching and (2) Pedagogical-Related Challenges.

In analyzing the data, the theme Poor Content Mastery emerged as one significant challenge faced by teachers, particularly when they are required to teach outside their area of specialization and teach difficult topics. As explained by Sibanyoni and Rankhumise (2023), poor content knowledge refers to a teacher who lacks understanding or mastery of the subject matter, which limits their ability to teach the content effectively. The result shows how many educators believe they lack content mastery and pedagogy in their subject area due to teaching outside of specialization and teaching difficult topics, which affects the effectiveness of teaching and the learning outcomes of students.

Teachers' Struggles in Technology Integration. The participants were asked about the struggles they experienced in integrating technology into their teaching practices. From the collected data based on their response regarding the study, four (4) core ideas emerged within Ineffective Technological Integration in Teaching. These are (1) Challenges in Tech-Based Pedagogy, (2) Lack of Digital Literacy and Skills, (3) Resistance to Change, and (4) Limited Resources.

4. DISCUSSION

Based on the data gathered from the participants, they experience difficulties in integrating technology, leading to its ineffective use in classroom instruction. It was seen that teachers, particularly those belonging to older age cohorts, exhibit pronounced challenges in the integration of technology within instructional practice. These challenges are attributable to limited digital literacy competencies, entrenched adherence to traditional pedagogical paradigms, and resistance to paradigm shifts in instructional delivery. Furthermore, diminished intrinsic motivation, apprehension toward the adoption of emerging educational technologies, and low self-efficacy in digital tool utilization exacerbate these constraints. Collectively, these factors impede the systematic and effective incorporation of technology-enhanced strategies, thereby constraining the optimization of pedagogical outcomes.

While surface-level data suggest high performance, the integration of qualitative findings reveals deeper struggles in key areas, particularly in addressing diverse learners, mastering subject matter, utilizing technology, and applying effective pedagogy. The quantitative findings of the study revealed that public secondary school teachers possess very high levels of competency in both the Philippines Professional Standards for Teachers (PPST) and Technological, Pedagogical, and Content Knowledge (TPACK) framework. However, some domains like diversity of learners, content mastery, and technological knowledge received comparatively lower scores, suggesting room for improvement.

Meanwhile, the qualitative findings reveal that despite their self-assessed high proficiency, teachers encounter significant challenges in practice. They report difficulties in addressing diverse student needs, mastering content knowledge, and effectively integrating technology into their teaching. These challenges are often linked to limited knowledge, training, and experience in handling diverse learners, out-of-field teaching, pedagogical-related challenges, insufficient resources, lack of digital literacy and skills, and resistance to technological change.

During interviews focused on Diverse Learners, Content Knowledge (CK), and Technological Knowledge (TK), a common struggle emerged around pedagogy. Many teachers shared difficulties with content mastery and teaching approaches, especially since they are assigned to teach subjects outside their area of specialization, an issue closely tied to pedagogical knowledge. Teachers also stated that they lacked technology and pedagogical skills.

In contrast, quantitative results found that teachers felt knowledgeable about their Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK), and Technological Pedagogical Knowledge (TPK), with a mean of 4.58, 4.54, and 4.50, respectively. They felt strongly about their teaching abilities and their integration of technology. However, these self-assessments detract from the challenges teachers identified in the qualitative data.

This disconnection between perception and practice highlights the need for Project EmpowerED, a targeted professional development initiative designed to bridge these gaps. The findings support the development of a program that not only strengthens teachers' content and technological knowledge but also enhances their

ability to apply effective and inclusive pedagogical approaches in real classroom settings. By addressing these identified needs, Project EmpowerED aims to elevate educators' competencies and ensure that their confidence is matched by actual capability, ultimately improving teaching quality and student outcomes.

According to Putri, Putri et al. (2024), teachers who master the integration of content, pedagogy, and technology are better prepared to adapt to the ever-changing digital landscape. Thus, teachers require ongoing support, resources, and professional development focused on diversity management, content mastery, and ICT integration (Sharma, 2023). This shows that despite their high performance, teachers still need ongoing training to fully understand and assist each learner for effective teaching.

5. CONCLUSION

Teachers' self-perceptions indicate high levels of competence; their lived classroom experiences highlight gaps that diminish instructional effectiveness. Hence, this divergence underscores the necessity for a targeted Project EmpowerED that bridges the gap between perceived and actual classroom practice, ensuring teachers are well-equipped to meet the diverse and technological demands of contemporary education. This program uses tools like seminars, workshops, and training to improve teachers' instructional strategies and digital competencies. It aligns with the Philippine Professional Standards for Teachers (PPST) and the Technology, Pedagogy, and Content Knowledge (TPACK) framework, ensuring that activities support the curriculum and ongoing teacher training efforts. The project aims to establish a sustainable model of professional growth that enhances teaching quality and ultimately benefits student learning in local schools.

The results of this study underscore the importance of carrying out the Project EmpowerED, which emphasizes improving teachers' abilities to deepen their understanding of the subject matter, inclusive pedagogy, and effectively integrate technology into lessons. Higher education institutions (HEI), the Department of Education (DepEd), and school leaders should provide and create policies regarding the accessibility of resources, infrastructure, and continuous training to enhance the practical skills of teachers, especially regarding addressing diverse learners, content knowledge, and technology knowledge. The policies must provide teachers with tools and support that help them apply their skills in the classroom effectively. Additionally, theory should focus on integrating both performance and contextualized lived experience to capture the reality of teaching practice. In particular, the integration of PPST and TPACK should investigate the gaps in perceived skills and practical application, emphasizing continuous self-reflection, professional development, and contextualized assessment in promoting teachers' development.

Overall, this study's implications have a significant impact on educators seeking to improve the teachers' teaching quality by implementing the Project EmpowerED, which was designed and developed in this study. Additionally, future researchers should implement and assess the effectiveness of the proposed project and extend the Project EmpowerED plan to other fields of specialization to determine its effectiveness and its impact across different subjects.

Acknowledgment: The researchers would like to express their heartfelt gratitude to all individuals and institutions who contributed to the successful completion of this thesis. Our panel members provided valuable feedback and suggestions, which greatly enhanced the quality of our study. To the Schools Division Superintendent and school principals of the involved institutions for their cooperation and assistance, which played a vital role in the smooth conduct of our research. To God be all the glory.

Conflict of Interest: The authors declare no conflict of interest.

Approval: The study adheres to the ethical guidelines for conducting research.

REFERENCES

Abuan, M. I., Herrera, D. J. L., & Herrera, M. L. (2024). Metacognitive Model of the Science Teachers' TPACK in Butuan City, Caraga, Philippines. *International Journal of Research and Innovation in Social Science*, *8*, 382-403. https://www.researchgate.net/profile/Maricris-

Abuan/publication/380547092_Metacognitive_Model_of_the_Science_Teachers'_TPACK_in_Butuan_City_Caraga_Philippines/links/6643667f08aa54017a083ff8/Metacognitive-Model-of-the-Science-Teachers-TPACK-in-Butuan-City-Caraga-Philippines.pdf

Abusomwan, L. (2024). Enhancing Technological Pedagogical Content Knowledge in Primary Education. *World Journal on Education and Humanities Research, 5*(1), 24–33.

Anggraeni, G., & Budiyono, S. H. (2017). TRAINING EFFECTIVENESS OF PPPPTK MATHEMATICS BASED ON PERFORMANCE AND IMPLEMENTATION OF CONTINUOUS PROFESSIONAL DEVELOPMENT. *Science (ICEBESS) Proceedings*, 91. https://www.academia.edu/download/77667111/09-034_2091-102_20Ganung_20Anggraeni.pdf

Anud, E., & Caro, V. (2022). Teaching performance of science teachers in the new normal and their technological pedagogical and content knowledge (TPACK) self-efficacy. *International Journal of Applied Science and Research*, *5*(4), 81-84. https://doi.org/10.56293/ijasr.2022.5410

Awang-Hashim, R., Kaur, A., & Valdez, N. P. (2019). Strategizing inclusivity in teaching diverse learners in higher education. *Malaysian Journal of Learning and Instruction*, *16*(1), 105-128. https://eric.ed.gov/?id=EJ1219877

Brunetti, A., Büchel, K., Jakob, M., Jann, B., & Steffen, D. (2024). Inadequate teacher content knowledge and what could be done about it: evidence from El Salvador. *Journal of Development Effectiveness*, *16*(2), 206-229. https://www.tandfonline.com/doi/abs/10.1080/19439342.2023.2213681

Casilao, D. P., Satojito, J. P., & Martir, E. M. (2025). Teachers' Professional Development, Technology Integration, and Learners' Engagement. *International Journal of Science and Management Studies (IJSMS)*, *8*(1), 15-25. https://www.ijsmsjournal.org/2025/volume-8%20issue-1/ijsms-v8i1p103.pdf

Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative* (Vol. 7). Prentice Hall, Upper Saddle River, NJ. https://www.academia.edu/download/31111669/MCTE690-syllabus-summer2003.pdf

DeCoito, I., & Richardson, T. (2018). Teachers and technology: Present practice and future directions. *Contemporary Issues in Technology and Teacher Education*, *18*(2), 362-378. https://www.learntechlib.org/primary/p/180395/

Delelis, M. G. T. (2019). Students' perception of home and teacher-related factors affecting academic performance. *International Journal of Advanced Research in Management and Social Sciences*, *8*(6), 540-555.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, *5*(1), 1-4. https://www.academia.edu/download/55796997/Comparison_Convenience_and_Purposive_Sampling-2016_4p.pdf

Leifler, E. (2020). Teachers' capacity to create inclusive learning environments. *International Journal for Lesson & Learning Studies*, *9*(3), 221-244. https://www.emerald.com/insight/content/doi/10.1108/IJLLS-01-2020-0003/full/html?_ga=2.264168396.114284073.1639667188-125906934.1639667188&utm_source=TrendMD&utm_medium=cpc&utm_campaign=International_Journal_for_Lesson_and_Learning_Studies_TrendMD_1&WT.mc_id=Emerald_TrendMD_1

Merga, M. K., Mat Roni, S., & Malpique, A. (2021). Do secondary English teachers have adequate time and resourcing to meet the needs of struggling literacy learners?. *English in Education*, *55*(4), 351-367. https://www.tandfonline.com/doi/abs/10.1080/04250494.2020.1838897

Pathiranage, A., & Karunaratne, T. (2023). Teachers' agency in technology for education in pre-and post-COVID-19 periods: A systematic literature review. *Education Sciences*, *13*(9), 917. https://www.mdpi.com/2227-7102/13/9/917

Putri, A. D., Juandi, D., Jupri, A., & Muchsin, S. B. (2024). Mastering the TPACK framework: Innovative approaches by mathematics teachers. *Jurnal Elemen*, *10*(3), 582-594. https://pdfs.semanticscholar.org/fb30/e2eeb7336050b5d974af076ed1c3bde41c35.pdf

Ren, H., Wei, W., & Zhang, W. (2025). The Influencing Factors on the Application of Information Technology Among Japanese Language Teachers in Chinese Universities. *The Asia-Pacific Education Researcher*, *34*(2), 825-841. https://link.springer.com/article/10.1007/s40299-024-00899-2

Requillo, D. A. C., Flores, L. C., Calizo, E. V., Legarda, M. B., Almagro, R. E., Yvette, G. G., ... & Lagura, G. B. (2024). Implementation of Catch-Up Fridays: A Case Study on Teachers' Experiences at the Davao Del Norte Division. *Asian Journal of Education and Social Studies*, *50*(8), 501-16. https://www.researchgate.net/profile/Ronald-Almagro-2/publication/383127555_Implementation_Of_Catch-Up_Fridays_A_Case_Study_on_Teachers'_Experiences_at_the_Davao_Del_Norte_Division/links/66c099e18d007355925a9bec/Implementation-Of-Catch-Up-Fridays-A-Case-Study-on-Teachers-Experiences-at-the-Davao-Del-Norte-Division.pdf

Salehi, N. (2025). Teaching vocabulary with augmented reality: voices from junior high school English teachers. *Discover Education*, *4*(1), 230. https://link.springer.com/article/10.1007/s44217-025-00673-6

Sharma, S. (2023). Challenges in Diverse Classroom of School: Teachers' Perspectives. *Chaturbhujeshwar Academic Journal*, *1*(1), 38-50. https://nepjol.info/index.php/caj/article/view/63133

Sibanyoni, S., & Rankhumise, M. (2023). Content Knowledge Mastery and Gaps of Technical Sciences Teachers in Fezile Dabi Education District. *Unnes Science Education Journal*, *12*(3), 98-109.

Sinsay-Villanueva, L. M., & Orbeta Jr., A. C. (2023). Embracing challenges, envisioning solutions: Advancing teacher education and development in the Philippines. *Philippine Institute for Development Studies Policy Notes*, *22*.

Tang, W. K. W., & Zhang, A. (2024). Meeting the needs of metropolitan learners: implementing agile-blended learning in higher education. *SN Computer Science*, *5*(8), 1102. https://link.springer.com/article/10.1007/s42979-024-03522-9

Teachers of Tomorrow. (2025). 12 Reasons Why Teachers Play a Crucial Role in Society 2024. https://www.teachersoftomorrow.org/blog/insights/reasons-why-teachers-play-a-crucial-role-in-society/

Teemant, A., & Pinnegar, S. E. (2019). Inclusive Pedagogy: A Conceptual Framework for Educating Students of Diversity. Principles of Language Acquisition. https://edtechbooks.org/language_acquisition/inclusive_pedagogy

Van Der Rest, C., & Swierstra, W. (2022). A completely unique account of enumeration. *Proceedings of the ACM on Programming Languages*, *6*(ICFP), 411-437. https://dl.acm.org/doi/abs/10.1145/3547636

Wipulanusat, W., Panuwatwanich, K., Stewart, R. A., & Sunkpho, J. (2020). Applying mixed methods sequential explanatory design to innovation management. In *The 10th International Conference on Engineering, Project, and Production Management* (pp. 485-495). Singapore: Springer Singapore. https://link.springer.com/chapter/10.1007/978-981-15-1910-9_40