

Understanding the nuances of virtual collaborative research writing among teacher-researchers in Asia-Pacific Region

Joseph A. Villarama¹, Bench G. Fabros¹, Abegail V. Dela Fuente², Lyan Mae Micah V. Dela Cruz¹, Rhomark DG. Jardiel³, Bharat Prasad Neupane⁴

¹Laboratory for Teaching and Learning, College of Education, Central Luzon State University, Muñoz, Philippines

²Department of Technology and Life Skills Education, College of Education, Central Luzon State University, Muñoz, Philippines

³Caanawan National High School, Department of Education-Schools Division of San Jose City, San Jose City, Philippines

⁴Department of Language Education, School of Education, Kathmandu University, Dhulikhel, Nepal

Article Info

Article history:

Received Jan 20, 2025

Revised Jun 19, 2025

Accepted Jun 24, 2025

Keywords:

Collaborative research writing

Professional development

Teacher-researchers

Thematic analysis

Virtual collaboration

ABSTRACT

Technological advancement in 21st century brought paradigm shift in research and professional development. Teachers engaged in cross-border and virtual collaborative undertakings. This study reports how teachers engaged in virtual collaborative research writing for professional development, particularly hindrances and potential of leveraging virtual collaborative platforms in Asia-Pacific Region. Utilizing hermeneutic phenomenological approach, insights and experiences of 200 purposively selected teacher-researchers from Afghanistan, India, Indonesia, Japan, Malaysia, Nepal, Philippines, South Korea, Thailand, and Vietnam were elicited through in-depth interviews with 10 open-ended questions. Findings revealed four major themes that expound dynamics of virtual collaborative research writing towards professional development among teacher-researchers, foregrounding convenience and accessibility experienced by teacher-researchers with collaborative research. Further, given the benefits of virtual collaborative platforms, results showed that professional skills, research productivity, and efficiency are developed as teacher-researchers continue to work with different people around the world virtually. While there are multiple advantages, challenges in virtual collaboration remain evidently, including technological obstacles, unreliable internet connectivity, and absence of nonverbal cues that impeded productivity and weakened human connections. With these findings affirming transformative potential of virtual collaboration in academic and professional development, it is crucial to emphasizing its importance in overcoming traditional barriers to research, innovation, and professional development.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Joseph A. Villarama

Laboratory for Teaching and Learning, College of Education, Central Luzon State University

Science City of Muñoz, Nueva Ecija, Philippines

Email: villaramajoseph120294@clsu.edu.ph

1. INTRODUCTION

Higher education changes dramatically as a result of technological improvements. In these changing times, faculty members modify their jobs and take on new duties as technologies affect not just conventional components like teaching techniques and student engagements, but also influence tenure requirements and research processes. One of the most significant changes has been the emergence of collaborative research. Studies show that teams who use technology to cooperate reach higher levels of research productivity than individuals.

Collaboration not only improves research productivity, but also helps faculty recognition and career progression [1], [2]. The emergence of virtual communities (VCs) in Asia-Pacific Region offered avenues for educators to engage in collaborative knowledge sharing and professional development. Studies revealed sudden increase in use of VCs for knowledge exchange purposes, particularly in Taiwan [3], [4]. Research also showed educators' participation within VCs in Taiwan, suggesting a promising potential for collaborative learning and research writing endeavors even for other countries [3]. Many studies underlined the significance of developing interpersonal components of mentoring through academic and professional collaborations, highlighting the need to provide virtual teacher-researchers access to peer mentor cohorts and institutional support [5]. Nowadays, educators maximize the potential of modern technologies to ensure effective and efficient collaborative research writing. The huge contributions of technologies motivate people to work together across borders [6]. Collaborative writing exercises such as peer review are regularly assigned in writing pedagogy, and teachers are increasingly incorporating computers into their lessons, creating a special opportunity to investigate virtual forms.

Similar benefits apply in the field of research, where researchers use virtual collaboration technologies to undertake tasks and produce ground-breaking discoveries while advancing numerous fields as results of exchanging information and resources. With remote work becoming increasingly widespread, using technologies, it increases productivity and convenience thereby speeds up collaborative research [7], and improves writing confidence, research procedures comprehension, and appreciation of researchers' diversity and inclusivity [8]. However, opportunities for collaboration are not equally distributed across disciplines. Faculty in science, technology, engineering, and mathematics (STEM) fields tend to engage in research collaboratively more frequently than their counterparts in humanities and social sciences [9]. Research suggested that women and minorities face challenges in securing collaborative research opportunities, which challenges the optimum achievement of sustainable development goals (SDGs) 5—gender equality and SDG 10—reduced inequalities [10], [11]. Despite these disparities, collaborative research offers numerous benefits such as learning new skills, innovative teaching methodologies, and expand professional networks for faculty development across disciplines; hence, strengthening SDG 4—quality education. Collaborative research writing fosters a sense of equity within academic institutions [11] and provides valuable mentorship opportunities for new faculty members [1]. Collaboration contributes to professional development by allowing professionals to share knowledge and best practices within and beyond their fields.

Therefore, this hermeneutic phenomenological qualitative study seeks to understand the motivations and barriers faced by teacher-researchers in Asia-Pacific Region regarding collaborative research writing in virtual setting. This research employed Engeström's "activity theory" as a theoretical framework to analyze the data and findings [12], highlighting activeness against passivity in which activities are "object-oriented and sociocultural mediated" [13]; hence, become pertinent while exploring how teacher-researchers collaborate in virtual spaces in research activities using digital tools and platforms available. During the engagement, the initial object disappears and another object appears or formulated by the interactions and inherent contradictions among various components [14], [15]. Therefore, Engeström's "activity theory" provides an adequate tool to analyze the lived experiences of teacher-researchers in Asia-Pacific Region to explore their growth and transformation from novice researchers to experts through collaborative practices mediated by various digital tools and platforms. Moreover, this research explores the potential professional development opportunities inherent in such collaborative research endeavors to further advance the promotion of professional collaborations and academic partnerships across the globe. The current study seeks to answer the questions: i) What are the motivations and hindrances experienced by teacher-researchers in select Asia-Pacific countries in virtual collaborative research writing? and ii) What are the potentials of virtual collaborative research writing for professional development?

2. METHOD

This research employs hermeneutic phenomenological qualitative research design to explore and investigate the lived experiences of participants. Hermeneutic phenomenological research understands the essence of human experiences through interpretation, emphasizing the subjective meanings that people attribute to their experiences [16]. Through a combination of scheduled in-person and virtual in-depth interviews and informal conversations, this study uncovers thematically the underlying meanings and structures embedded within the teacher-researchers' lived experiences, offering valuable insights into their subjective realities within the research context in Asia-Pacific Region, specifically Afghanistan, India, Indonesia, Japan, Malaysia, Nepal, Philippines, South Korea, Thailand, and Vietnam. Following the purposive sampling technique, 200 participants (20 from each country) were selected based on the criteria: i) public/private college/university instructors/professors/teachers and ii) those who have experiences on research collaborations through the use of any collaborative virtual space.

The study used a set of 10 open-ended author-written guide questions as reviewed and validated by five experts. The instrument contains three parts: i) informed consent form and data privacy clause; ii) questions on motivations of teacher-researchers in virtual collaborative research writing; and iii) questions on hindrances in virtual collaborative research writing. The teacher-researchers as respondents were well-informed to have their interviews and conversations documented using written notes, audio, and video recordings. With the secured research ethics approval, prior to the interviews and conversations, consent forms and data privacy clauses were explained and accomplished. Likewise, teacher-researchers' schedules were set based on their availability, willingness, and voluntariness to participate. The lived experiences of teacher-researchers were collected through a series of scheduled in-depth virtual interviews and informal conversations that are recorded, transcribed, and translated into the English language for further analysis. The participants were allowed to speak in their mother tongue and later all the data were transcribed and translated. The responses were critically analyzed through thematic approach. Ensuring accuracy, reliability, and credibility of information and findings, data cross-checking and triangulation were implemented. Figure 1 illustrates the six-point analysis [17]–[19] that included: i) data familiarization of collected data; ii) codes generation with quotes extraction directly from the gathered data; iii) themes identification involving patterns and similarities within themes; iv) reviewing themes ensuring their meaningfulness and accuracy; v) definition of themes elucidating their implications; and vi) report production.

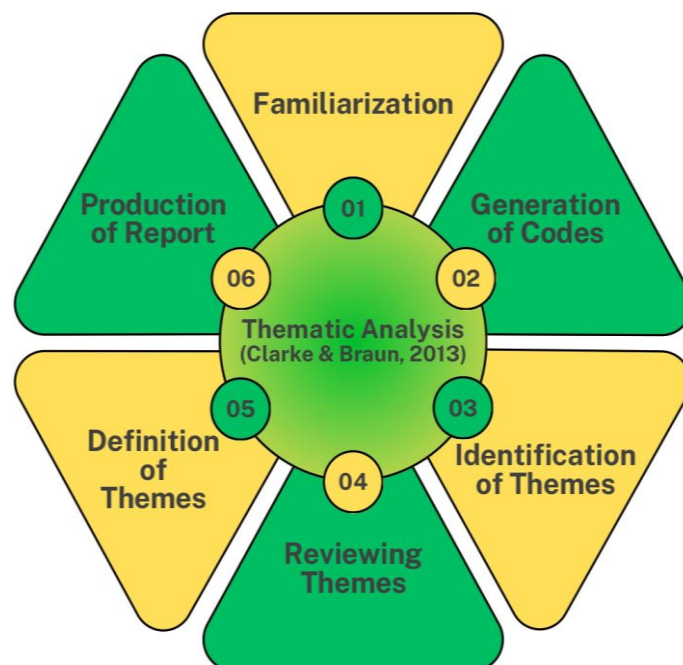


Figure 1. Adapted Clarke and Braun [17] thematic analysis steps

3. RESULTS AND DISCUSSION

This section presents and discusses qualitative thematic-narrative analysis, which determined the motivations and hindrances experienced by teacher-researchers in select Asia-Pacific countries in virtual collaborative research writing and explored the potentials of virtual collaborative research writing for professional development. Figure 2 illustrates the results with four major themes, eight sub-themes in total, and core statements from the participants, as the qualitative summary of the research. Major theme 1 (convenience and accessibility) emerged as a core theme in understanding the nuances of virtual collaborative research writing among teacher-researchers, emphasizing the relevance of virtual platforms, such as Google Docs in abridging collaboration by offering “flexibility in scheduling and location” (sub-theme 1.1) and supporting “real-time collaboration and document sharing” (sub-theme 1.2). These aspects collectively allow teacher-researchers to work seamlessly across geographic and temporal barriers, facilitating efficient teamwork despite their demanding schedules. One respondent shared, “*the opportunity to collaborate online allows me to engage with the project beyond my teaching hours and from the convenience of my home; not having to travel for meetings brings a sense of relief*,” underscores the value of flexibility, which is particularly beneficial for teacher-researchers balancing professional and personal responsibilities.

Flexible scheduling in virtual collaboration fosters inclusivity and enhances productivity among diverse groups thereby emphasizing the benefits of virtual collaboration. Similarly, real-time document sharing and collaborative tools, such as Google Docs, facilitate immediate feedback and streamline the research process [20]. These tools not only enhance communication but also promote a sense of collective effort among collaborators, critical in academic and research settings; thus, the convenience and accessibility offered by virtual platforms significantly empower teacher-researchers to engage in meaningful research collaborations, breaking traditional barriers of time and space, paving the way for their continued professional development.

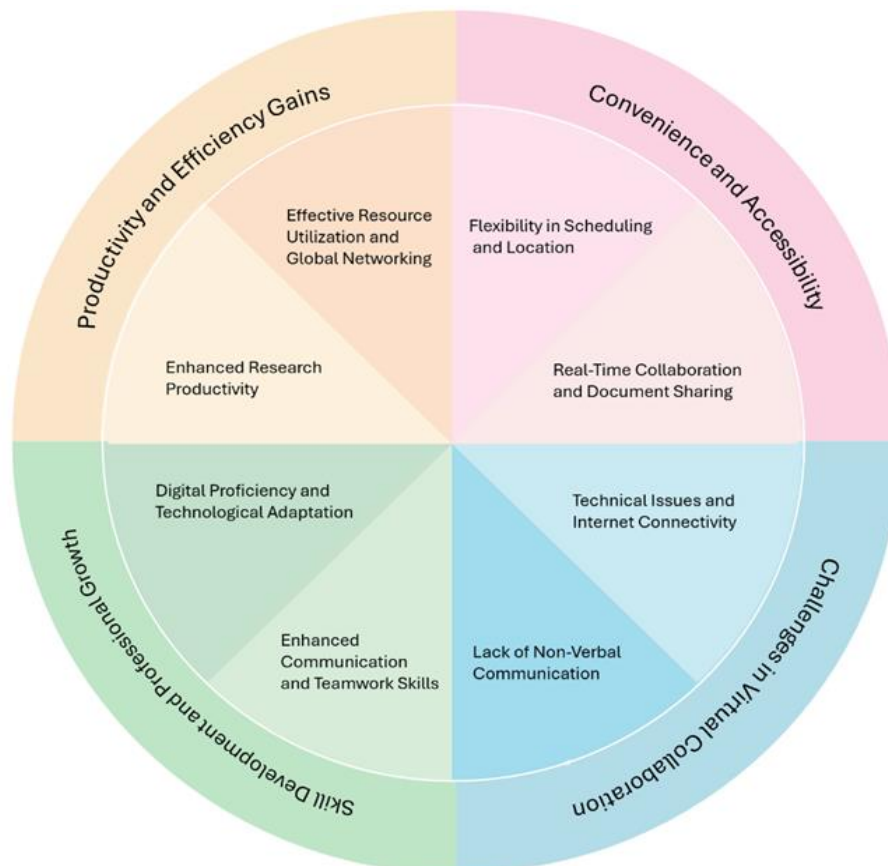


Figure 2. Results of thematic analysis

While technological advancements redefine the human lives and work, there remain “challenges in virtual collaboration” (major theme 2) that shed light on obstacles, which hinder the effective collaborations among professionals in myriad of fields, specifically “technical issues and internet connectivity” (sub-theme 2.1) and “lack of non-verbal communication” (sub-theme 2.2), which create disruptions in the workflow and diminish the interpersonal connections crucial for seamless teamwork. As shared by one of the respondents, “*the issue of unstable internet connectivity has frequently emerged during virtual meetings, leading to delays and necessitating the rescheduling of important discussions.*” Meanwhile, another respondent emphasized that, “*I find it challenging to interpret the tone or intent behind a colleague’s message when I can’t observe their facial expressions or body language, which can occasionally result in misunderstandings during virtual collaborations.*” These statements from the interviewees stress some technological and communication barriers and their undeniable impacts to collaborative processes.

The findings align with prior studies that highlight similar challenges in virtual collaboration. Technical difficulties, particularly in countries with inconsistent internet access, significantly affect the efficiency of online teamwork and their academic progress and mental health [21]. Further, lack of non-verbal cues, such as facial expressions and gestures, often leads to miscommunication and reduced emotional engagement among virtual collaborators [22]. Comparably, the critical role of non-verbal communication in building trust and rapport in team settings, which is harder to achieve virtually [23]. Technical disruptions in virtual environments can lead to frustration and decreased motivation among team

members. Addressing these challenges in virtual collaboration is essential to optimize the virtual collaboration across fields and nations, ensuring more productive and cohesive research efforts and professional development among teacher-researchers.

Major theme 3 (skill development and professional growth) encapsulates how engagement in virtual research projects fosters “enhanced communication and teamwork skills” (sub-theme 3.1) and promotes “digital proficiency and technological adaptation” (sub-theme 3.2). The collaborative nature of these initiatives encourages researchers to develop effective communication strategies and adapt to technological tools essential for virtual teamwork, contributing significantly to their professional growth. *“Engaging in virtual collaboration has enhanced my ability to communicate with clarity and efficiency. As a matter of fact, I have become proficient with tools such as Google Docs, which is a skill set I did not anticipate acquiring through my involvement in this type of research.”* The statement from one of the respondents emphasizes the dual impact of improved interpersonal and technical competencies, which are critical in today’s digital age.

Virtual collaborations cultivate stronger teamwork and communication skills, as researchers must navigate diverse perspectives and work styles [24]. Meanwhile, virtual research environments necessitate the rapid acquisition of digital skills, preparing participants for technologically advanced professional settings [23]. Virtual research platforms not only enhance productivity but also equip researchers with skills transferable beyond academia, such as project management and digital literacy [25]–[27]. In the continuous evolution of the professional landscape, the transformative potential of virtual collaboration in research and other undertakings foster holistic professional growth among teacher-researchers.

With the inevitable presence of virtual platforms in education and professional fields, it is opportune to put forward “productivity and efficiency gains” (major theme 4) from these virtual platforms in academic, professional, and even personal spectra. The results highlight how virtual collaboration fosters “enhanced research productivity” (sub-theme 4.1) by streamlining processes and facilitating consistent outputs. It also underscores the value of “effective resource utilization and global networking” (sub-theme 4.2), allowing researchers to access diverse expertise, tools, and knowledge, regardless of geographic location; hence, enabling teacher-researchers to optimize their time and effort, resulting in more efficient research outcomes.

“I have realized that virtual collaboration has greatly enhanced my productivity. The ability to easily divide tasks, monitor progress in real-time, and expedite the completion of research projects stands in stark contrast to traditional methods,” one of the respondents communicated. *“Collaborating with researchers from different countries without the necessity of travel has significantly broadened my access to resources and diverse perspectives that I might not have encountered otherwise,”* the other respondent stated, revealing how virtual tools have enhanced both the quantity and quality of collaborative research efforts in a global sphere.

Analogously, digital collaboration tools reduce administrative burdens, allowing researchers to focus more on content creation and analysis [28]. Virtual platforms enhance productivity by supporting efficient task delegation and progress monitoring [29], [30]. In a comparable study, global networking is relevant in academic collaborations, noting that diverse teams often produce more innovative and impactful research while effective use of digital tools optimizes resource allocation and fosters meaningful cross-cultural exchanges [31], [32]. In an area where time and physical resources are often barriers to traditional research methods, this study clearly shows how productivity and efficiency improvements have a profound effect on teacher-researchers in the Asia-Pacific Region. Virtual collaboration greatly improves academic and professional achievements.

4. CONCLUSION

This qualitative study determined the motivations and hindrances experienced by teacher-researchers in select Asia-Pacific countries in virtual collaborative research writing and explored the potentials of virtual collaborative research writing for professional development. The findings revealed four major themes: convenience and accessibility; challenges in virtual collaboration; skill development and professional growth; and productivity and efficiency gains—that expound the dynamics of virtual collaborative research writing towards professional development among teacher-researchers. The identification of convenience and accessibility as critical components highlights their role in enhancing effective collaboration. The flexibility in scheduling and location allowed teacher-researchers to effectively manage both their professional and personal responsibilities, while real-time communication tools ensured consistent connectivity. Nonetheless, challenges in virtual collaboration capitalized the technological obstacles, unreliable internet connectivity, and absence of nonverbal cues that impeded productivity and weakened the human connections essential for trust and rapport.

Further, the results show that skills development and professional growth demonstrated that the implementation of virtual research activities enhanced the digital literacy, communication, and collaboration

competencies of teacher-researchers. This empowerment fosters the professional development of individuals and equips them with skills that extend beyond the confines of the educational setting. Productivity and efficiency among teacher-researchers highlighted the ways in which virtual platforms enhance resource utilization and facilitate global networking, ultimately leading to increased research output and fostering cross-cultural exchanges. These findings affirm the transformative potential of virtual collaboration in academic and professional development, emphasizing its significant role in overcoming traditional barriers to research and innovation. Furthermore, future research may conduct similar studies with focus on quantitative and mixed methods approaches. With the potentials of virtual collaborative research writing for professional development, other studies may explore the students' academic experiences with collaborative tasks using different virtual collaborative tools and even non-virtual ways of collaborations.

ACKNOWLEDGEMENTS

We acknowledge the Central Luzon State University (CLSU), Philippines, Department of Education (DepEd) Schools Division of San Jose City, Nueva Ecija, Philippines, and Kathmandu University School of Education, Nepal, for allowing us to conduct this collaborative research undertaking.

FUNDING INFORMATION

There is no funding involved in this research from any agency and/or institution.

AUTHOR CONTRIBUTIONS STATEMENT

All authors contributed to this research as reflected on the Contributor Roles Taxonomy (CRediT) to recognize individual author contributions, reduce authorship disputes, and facilitate collaboration.

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Joseph A. Villarama	✓			✓	✓	✓	✓	✓	✓	✓		✓		
Bench G. Fabros	✓	✓		✓				✓		✓	✓			
Abegail V. Dela Fuente	✓		✓				✓		✓		✓			
Lyan Mae Micah V. Dela Cruz					✓	✓	✓		✓					
Rhomark DG. Jardiel					✓	✓	✓		✓					
Bharat Prasad Neupane		✓					✓		✓					

C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

I : Investigation

R : Resources

D : Data Curation

O : Writing - Original Draft

E : Writing - Review & Editing

Vi : Visualization

Su : Supervision

P : Project administration

Fu : Funding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. Authors declare no conflict of interest.

DATA AVAILABILITY

The data that support the findings of this study are available on request from the corresponding author [JAV]. The data, which contain information that could compromise the privacy of research participants, are not publicly available due to certain restrictions.




REFERENCES

- [1] J. M. Burroughs, "No Uniform Culture: Patterns of Collaborative Research in the Humanities," *Portal: Libraries and the Academy*, vol. 17, no. 3, pp. 507–527, 2017, doi: 10.1353/pla.2017.0032.
- [2] J. Renner, "Engaging TBR Faculty in Online Research Communities and Emerging Technologies," in *Handbook of Research on Technology-Centric Strategies for Higher Education Administration*, P. Tripathi and S. Mukerji, Eds., Hershey, PA: IGI Global, 2017, pp. 56–72, doi: 10.4018/978-1-5225-2548-6.ch004.
- [3] F.-C. Tseng and F.-Y. Kuo, "A study of social participation and knowledge sharing in the teachers' online professional community of practice," *Computers & Education*, vol. 72, pp. 37–47, Mar. 2014, doi: 10.1016/j.compedu.2013.10.005.




- [4] C. Yen, "How to unite the power of the masses? Exploring collective stickiness intention in social network sites from the perspective of knowledge sharing," *Behaviour & Information Technology*, vol. 35, no. 2, pp. 118–133, Feb. 2016, doi: 10.1080/0144929X.2015.1105297.
- [5] R. Pollard and S. Kumar, "Mentoring Graduate Students Online: Strategies and Challenges," *The International Review of Research in Open and Distributed Learning*, vol. 22, no. 2, pp. 267–284, Jan. 2021, doi: 10.19173/irrodl.v22i2.5093.
- [6] J. C. Hilario *et al.*, "Global Lens of Learning: Exploring the Intercultural Experiences of Foreign Exchange Student-Teachers in Laboratory High School towards Internationalization of Higher Education," *A Multidisciplinary Journal Psychology and Education*, vol. 21, no. 5, pp. 509–521, 2024.
- [7] Y. Yilmaz, M. Gottlieb, M. R. C. Haas, B. Thoma, and T. M. Chan, "Remote Collaborative Writing: A Guide to Writing Within a Virtual Community of Practice," *Journal of Graduate Medical Education*, vol. 14, no. 3, pp. 256–259, Jun. 2022, doi: 10.4300/JGME-D-21-01108.1.
- [8] A. A. Dahl *et al.*, "'If we can do it, anyone can!': Evaluating a virtual 'Paper Chase' collaborative writing model for rapid research dissemination," *Active Learning in Higher Education*, vol. 25, no. 1, pp. 115–134, Mar. 2024, doi: 10.1177/14697874221099011.
- [9] A. Kosmützky, "A two-sided medal: On the complexity of international comparative and collaborative team research," *Higher Education Quarterly*, vol. 72, no. 4, pp. 314–331, Oct. 2018, doi: 10.1111/hequ.12156.
- [10] E. Johnston, C. Burleigh, and A. Wilson, "Interdisciplinary Collaborative Research for Professional Academic Development in Higher Education," *Higher Learning Research Communications*, vol. 10, no. 1, pp. 62–77, 2011, doi: 10.18870/hlrc.v10i1.1175.
- [11] J. Misra, L. Smith-Doerr, N. Dasgupta, G. Weaver, and J. Normanly, "Collaboration and Gender Equity among Academic Scientists," *Social Sciences*, vol. 6, no. 1, p. 25, Mar. 2017, doi: 10.3390/socsci6010025.
- [12] D. S. P. Gedera, P. J. Williams, and Y. Engeström, *Activity theory in education: Research and practice*. Rotterdam: Sense Publishers, 2015, doi: 10.1007/978-94-6300-387-2.
- [13] B. P. Neupane and S. Dhungana, "Pathways to Teacher Leadership among English as Foreign Language Teachers in Nepal's Public Schools," *International Journal of Multidisciplinary Perspectives in Higher Education*, vol. 6, no. 1, pp. 102–122, 2021, doi: 10.32674/jimphe.v6i1.2673.
- [14] A. Sannino, H. Daniels, and K. D. Gutiérrez, *Learning and expanding with activity theory*. New York: Cambridge University Press, 2009, doi: 10.1017/CBO9780511809989.
- [15] M. Taylor, E. J. Klein, M. Munakata, K. Trabona, Z. Rahman, and J. McManus, "Professional development for teacher leaders: using activity theory to understand the complexities of sustainable change," *International Journal of Leadership in Education*, vol. 22, no. 6, pp. 685–705, Nov. 2019, doi: 10.1080/13603124.2018.1492023.
- [16] M. van Manen, *Researching lived experience: Human science for an action sensitive pedagogy*, 2nd ed. New York: Routledge, 2016, doi: 10.4324/9781315421056.
- [17] V. Clarke and V. Braun, "Thematic analysis," *The Journal of Positive Psychology*, vol. 12, no. 3, pp. 297–298, May 2017, doi: 10.1080/17439760.2016.1262613.
- [18] B. G. Fabros, J. T. Ancheta, A. J. R. Balanay, M. D. Bellen, A. S. S. Cuario, and M. I. B. Marzan, "Challenges Encountered by Indigenous Children in Self-Learning Module during New Normal Education," *Jurnal PAJAR (Pendidikan dan Pengajaran)*, vol. 7, no. 6, pp. 1337–1345, 2023, doi: 10.33578/pjr.v7i6.9647.
- [19] V. Braun and V. Clarke, "Using thematic analysis in psychology," *Qualitative Research in Psychology*, vol. 3, no. 2, pp. 77–101, Jan. 2006, doi: 10.1191/1478088706qp063oa.
- [20] C. Moore, "The Future of Work: What Google Shows Us About the Present and Future of Online Collaboration," *TechTrends*, vol. 60, no. 3, pp. 233–244, 2016, doi: 10.1007/s11528-016-0044-5.
- [21] Z. H. Sain, H. Geng, and Y. Song, "Impact of English Language Coaching Classes in Pakistan: Bridging Educational Gaps and Socioeconomic Challenges," *Language, Technology, and Social Media*, vol. 2, no. 2, p. 116, 2024, doi: 10.70211/ltsm.v2i2.98.
- [22] E. Glikson and M. A. Riordan, "Beneficial outcomes of (appropriate) nonverbal displays of negative affect in virtual teams," *Computers in Human Behavior*, vol. 154, p. 108165, May 2024, doi: 10.1016/j.chb.2024.108165.
- [23] C. Lim, "Beyond Fatiguing Virtual Meetings: How Should Virtual Meetings for Workplaces Be Supported?" *International Journal of Human-Computer Interaction*, vol. 40, no. 18, pp. 5103–5118, Sep. 2024, doi: 10.1080/10447318.2023.2231279.
- [24] J. V. Dinh, D. L. Reyes, L. Kayga, C. Lindgren, J. Feitosa, and E. Salas, "Developing team trust," *Organizational Dynamics*, vol. 50, no. 1, p. 100846, Jan. 2021, doi: 10.1016/j.orgdyn.2021.100846.
- [25] A. Palmquist, J. Alves, R. Baranyi, R. Munkvold, V. Carvalho, and E. Oliveira, "Blended Realities-Higher Education Student Reflections on Acquiring Skills for Game Creation in a Project-Based and Blended Learning Environment," *Games: Research and Practice*, vol. 3, no. 1, pp. 2–26, Mar. 2025, doi: 10.1145/3704414.
- [26] S. S. Hamedani, S. Aslam, B. A. M. Oraibi, Y. B. Wah, and S. S. Hamedani, "Transitioning towards Tomorrow's Workforce: Education 5.0 in the Landscape of Society 5.0: A Systematic Literature Review," *Education Sciences*, vol. 14, no. 10, p. 1041, 2024, doi: 10.3390/educsci14101041.
- [27] M. Zamiri and A. Esmaeili, "Strategies, Methods, and Supports for Developing Skills within Learning Communities: A Systematic Review of the Literature," *Administrative Sciences*, vol. 14, no. 9, p. 231, Sep. 2024, doi: 10.3390/admsci14090231.
- [28] Z. Wei, "Navigating Digital Learning Landscapes: Unveiling the Interplay Between Learning Behaviors, Digital Literacy, and Educational Outcomes," *Journal of the Knowledge Economy*, vol. 5, no. 3, pp. 10516–10546, 2023, doi: 10.1007/s13132-023-01522-3.
- [29] A. J. Torres, J. M. C. Alberto, A. P. J. Guieb, A. DR. Paray, and J. A. Villarama, "Language, Identity, and Ethics in AI-Driven Art: Perspectives from Human Artists in Digital Environments," *Language, Technology, and Social Media*, vol. 3, no. 1, pp. 17–29, Dec. 2024, doi: 10.70211/ltsm.v3i1.137.
- [30] F. Klonek and S. K. Parker, "Designing SMART teamwork," *Organizational Dynamics*, vol. 50, no. 1, p. 100841, Jan. 2021, doi: 10.1016/j.orgdyn.2021.100841.
- [31] Y. C. Fu, M. Marques, Y. H. Tseng, J. J. W. Powell, and D. P. Baker, "An evolving international research collaboration network: spatial and thematic developments in co-authored higher education research, 1998–2018," *Scientometrics*, vol. 127, no. 3, pp. 1403–1429, 2022, doi: 10.1007/s11192-021-04200-w.
- [32] Y. Xia, S.-Y. Shin, and J.-C. Kim, "Cross-Cultural Intelligent Language Learning System (CILS): Leveraging AI to Facilitate Language Learning Strategies in Cross-Cultural Communication," *Applied Sciences*, vol. 14, no. 13, p. 5651, Jun. 2024, doi: 10.3390/app14135651.

BIOGRAPHIES OF AUTHORS






Joseph A. Villarama    works as an assistant professor at Central Luzon State University (CLSU), Philippines, where he earned his bachelor's degree in Secondary Education-English. Asst. Prof. Villarama studies doctor of Philosophy in English Language Education at Tarlac State University (TSU), Philippines, where he finished master of Arts in Education-English. He served as the Fulbright Foreign Language Teaching Assistant (FLTA) at University of Michigan, USA in 2021-2022, where he further his research interests in English language education, language teaching, technology integration in teaching and learning, and internationalization in education. He can be contacted at email: villaramajoseph120294@clsu.edu.ph.






Bench G. Fabros    is a faculty member from the Central Luzon State University, a licensed professional teacher, an educator, international manuscript reviewer, peer reviewer, international speaker, visiting lecturer, guest lecturer, and at present teaching mathematics, research, and allied subjects from junior high school to undergraduate levels in an online and face-to-face modality. He can be contacted at email: bench_fabros@clsu.edu.ph.






Abegail V. Dela Fuente    is an associate professor at Central Luzon State University (CLSU), Philippines, where she finished Bachelor of Science in Education, *Cum Laude*, and later completed her doctor of Philosophy in Technology Education with High Distinction. She focuses in advancing Technology and Industrial Arts Education, as well as Curriculum Development, significantly shaping both pedagogical practices and academic administration. She can be contacted at email: abegaildelafuente@clsu.edu.ph.






Lyan Mae Micah V. Dela Cruz    is a licensed professional teacher and an assistant professor at the Central Luzon State University, Philippines. She finished doctor of Education with Academic Commendation from the Wesleyan University-Philippines, where she also completed her master's degree in English education. She can be contacted at email: lyanmaemicah.delacruz@clsu2.edu.ph.



Rhomark DG. Jardiel    is a licensed professional teacher and public-school teacher at Caanawan National High School, under the Schools Division of San Jose City, Nueva Ecija, Philippines. He is a candidate for the degree doctor of Philosophy in Public Administration from the Nueva Ecija University of Science and Technology, where he also completed his master's degree. He can be contacted at email: jardielrhomark@gmail.com.



Bharat Prasad Neupane    works at the Department of Language Education, School of Education, Kathmandu University, Nepal, as an assistant professor. Dr. Neupane is a central committee member of Nepal English Language Teachers' Association (NELTA) and one of the editors of the Journal of NELTA. His areas of interest include teacher development, teacher identity, qualitative research, language policy, medium of instruction, and integration of GenAI and AI tools in qualitative research, among others. He can be contacted at email: bharat.neupane@ku.edu.np.