

Teachers' Utilization of Digital Tools and Confidence in Technology



Rekme! Mayantao¹, Rosalinda C. Tantiado²

^{1,2} Department of Education, Misamis Oriental, Philippines, Southern de Oro Philippines College, Cagayan de Oro City, Philippines

ABSTRACT: The utilization of technology has emerged as a crucial instrument for educators to augment instruction and enrich the educational encounters of learners. This study sought to determine the extent of teachers' utilization of digital tools, their level of confidence in technology, and the significant relationship between the extent of teachers' utilization of digital tools and confidence in technology, among the 101 teachers from the nine (9) schools of Manolo Fortich III District, Division of Bukidnon, chosen through universal sampling. This study utilized two instruments. One was a research-made questionnaire for the teachers' utilization of digital tools and for the teachers' confidence in technology was adapted, and modified questionnaire from the study of Heather (2014). Descriptive statistics were used such as mean, standard deviation, and Pearson Product Moment Correlation Coefficient. The study revealed that most of the time teachers utilized Excel/Spreadsheets than video/Capcut. Teachers' confidence level in technology found to be Always Confident. Furthermore, teachers' utilization of digital tools such as PPT/canvas, video/caput and the like, and Excel/spreadsheets has a significant relationship to teachers' confidence in technology. Thus, to enhance video/CapCut usage, teachers need training, support, and collaboration. Schools should provide professional development, technical assistance, and recognition of achievements. These efforts boost confidence in digital tools, improve pupils' learning, and encourage creative teaching methods in the digital era.

KEYWORDS: Confidence, Digital tools utilization, Technology

I. INTRODUCTION

Educational technology is an expanding, dynamic, and critically important field in education. It aims to examine, improve, modify, and even incorporate novel teaching and learning processes by carefully applying established laws, principles, theories, and empirically derived discoveries from modern disciplines such as Psychology, Sociology, Engineering Management, Mathematics, and other foundational subjects. Therefore, educational technology encompasses more than just the sum of all the media, methods, materials, and techniques employed to enhance teaching and learning.

Moreover, educational technology has made the integration of the instructional design process and the development of instructional media possible. The convergence of advancements in educational science and optical and electronic technologies has created an ideal environment for the implementation of new developments aimed at enhancing the efficiency of the teaching and learning process. Educational technology has encouraged teachers to explore innovative approaches in school organization, curriculum development, and teaching strategies, leading to the emergence of various novel concepts.

The utilization of technology has emerged as a crucial instrument for educators to augment instruction and enrich the educational encounters of learners. The inclusion of classroom technology initiatives, encompassing mobile devices, tablets, and computers, has resulted in a change in the classroom atmosphere that benefits both instructors and students (Mosley, 2019). The ability and desire of educators to use technology in the classroom is crucial to its effective integration.

Furthermore, the incorporation of technology offers opportunities for students to complete assignments utilizing technology rather than the conventional method of using pencil and paper (Ahmadi & Reza, 2018). The integration of technology equips both educators and learners with novel resources to enhance the educational journey. In agreement with Schaffhauser (2019), teachers' confidence in utilizing technology is gradually increasing. A recent survey revealed that nearly all teachers and school leaders, approximately 99 percent, acknowledged incorporating digital technology in their classrooms. Furthermore, an almost equal proportion, approximately 96 percent, reported observing advantages resulting from its

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implementation. Nevertheless, not all educational institutions possess access to the Internet and even computer facilities or essential devices like mobile phones, tablets, and laptops for both educators and students. The absence of Information and Communication Technology (ICT) infrastructures and equipment, including computers, institutional internet access, projectors, and similar resources, or the lack of support for educators, insufficient experience in teaching with ICT, and inadequate ICT training, are significant obstacles that impede the incorporation of ICT in teachers' education (Kennedy, 2023). It is crucial to establish teachers' training programs while also ensuring that institutions are sufficiently equipped with ICT infrastructures, as these are essential for empowering teachers to integrate ICT into their respective classrooms. In Kibirige's (2023) investigation, it was determined that notable hindrances encompassed inadequate computer availability, absence of internet connectivity, and insufficiency of ICT course books. Moreover, educators needed to improve the essential ICT competencies required for incorporating technology into their instructional approaches, while administrative backing proved inadequate.

Given the considerations mentioned above, the researcher postulated this study to assess the teachers' utilization of digital tools and confidence in technology of Manolo Fortich District III, Division of Bukidnon. The purpose of this study was to establish a baseline understanding of teachers' proficiency in using digital tools and their confidence levels. This study was based on the theory of Mishra and Koehler's Theory (2006) in Bingimlas (2018) that the Technology, Pedagogy, and Content Knowledge (TPACK) framework provides a valuable approach to the challenges faced by teachers when implementing educational technology in their classrooms. The significance of Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK) is emphasized by the TPACK framework. It highlights that the integration of educational technology should be based on a solid foundation of content and pedagogy, where the technology effectively communicates the content and supports the pedagogy to enhance students' learning experience.

The utilization of particular technological tools, such as hardware, software, applications, and associated information literacy practices, is most effective in the instruction and guidance of students toward a more comprehensive and profound comprehension of the subject matter, as stated by the TPACK framework. Technological Pedagogical Knowledge (TPK) delineates the connections and interactions between technological tools and specific pedagogical practices. In contrast, Pedagogical Content Knowledge (PCK) elucidates the same relationships between pedagogical practices and specific learning objectives. Lastly, Technological Content Knowledge (TCK) explicates the associations and intersections among technologies and learning objectives. The significance of TPACK for teachers lies in the fact that it furnishes them with the necessary knowledge and skills to navigate the contemporary educational landscape. Teachers are more equipped to use technology to improve teaching and learning, considering this empowerment, thereby resulting in improved student outcomes and better preparedness for the challenges of the 21st century.

The concepts of the study were anchored on the study of Hughes (2022), the Replacement, Amplification, Transformation (RAT) framework. This framework served as both a model for integrating technology and an assessment tool for instructors. Its purpose was to enable instructors to critically analyze the effectiveness of their technology integration in serving both students and themselves. The framework focused on the development and integration of technology in teaching, learning, and curriculum development. Hughes presented the RAT framework as a means of self-assessing technology integration to achieve pedagogical and curricular objectives. In her RAT Question Guide (2022), Hughes suggests extending this self-assessment to the school/district level. The RAT framework identified three primary purposes for technology integration: Replacement, Amplification, and Transformation. These purposes involved replacing non-digital practices, amplifying existing practices, and transforming teaching, learning, and curriculum development through digital practices. The utilization of technology in the classroom by instructors significantly impacts instructional methods, student learning, and changing current courses and exercises. The primary purposes for technology integration were identified by the Replacement, Amplification, Transformation (RAT) model (Hughes, 1998).

II. METHODOLOGY

The researcher employed descriptive-correlational. Correlational research is used to establish a logical relationship between two variables. It also investigates the relationship without manipulating or controlling any of the variables. According to the correlational research definition, it reflects the strength of two or more variables and the direction of their relationship. This direction of the correlation is ideally positive or negative (Wilson, 2023). In this study, the researcher looked into the significant relationship between the teachers' utilization of the digital tools and their confidence in technology. This study employed the following statistical tools to analyze the data. For problems 1 and 2, Mean and Standard Deviation were used. For problem 3, to get the significant relationship between the teachers' utilization of digital tools and their confidence, the Pearson Product Moment Correlation Coefficient was utilized.

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III. RESULTS AND DISCUSSION

Problem 1. What is the extent of the teachers' utilization of digital tools such as:

- 1.1 PPT/Canva
- 1.2 Video/Capcut and the like, and
- 1.3 Excel/Spreadsheets

Table 1 shows the overall extent of the teachers' utilization of digital tools. It reveals that it has an overall Mean of 2.55 with SD = 0.86, described as Most of the time and interpreted as Very Utilized. The statement indicates that most teachers are actively using digital tools in their teaching methods. Additionally, this suggests a favorable shift towards incorporating technology in education which could result in improved teaching techniques, higher student involvement, and better classroom organization. It highlights the need to offer assistance and tools to educators to enhance their digital literacy abilities and make efficient use of technology in their teaching methods.

Table 1. Overall Teachers' Utilization of Digital Tools.

Teachers' Utilization of Digital Tools.	Mean	SD	Description	Interpretation
PPT/Canva	2.61	0.82	Most of the time	Very Utilized
Video/Capcut and the like	2.35	0.82	Sometimes	Utilized
Excel/Spreadsheets	2.69	0.94	Most of the time	Very Utilized
Overall	2.55	0.86	Most of the time	Very Utilized

Note: 1.0-1.75- Not utilized, 1.76-2.50- Utilized, 2.51-3.25- Very Utilized, 3.26-4.0- Extremely Utilized

As supported by Avidov-Ungar & Forkosh-Baruch (2018), educators in modern classrooms have access to a wide range of technological resources to improve teaching quality and enrich students' academic experience. Prior studies have shown how technology affects teaching methods and the entire educational experience. Technology has significantly enhanced instruction and influenced teachers' views on their role in education.

Moreover, the variable, *Excel/Spreadsheets*, has the highest Mean of 2.69 with SD = 0.94, described as Most of the time and interpreted as Very Utilized. This indicates that teachers predominantly utilize Excel/Spreadsheets to assist with several facets of their teaching and administrative duties. It implies that this tool is essential for tasks like lesson planning, data management, assessment, and analysis in educational settings. The widespread use of Excel/Spreadsheets highlights their flexibility and efficiency in fulfilling the various needs of teachers in their daily tasks. It emphasizes the significance of continuously offering training and assistance to teachers to improve their competence in using this tool effectively and creatively.

Tohir (2018) revealed the identified three implications in design and spreadsheet simulation in his case study. The study suggests utilizing spreadsheets for convenient, cost-effective, and adaptable purposes when constructing physics themes. Three pre-service teachers have demonstrated their ability to create several optical subjects using diverse formats and interactive elements. Secondly, designing activities necessitates knowledge, skills, and attitudes. Fundamental knowledge is essential as the primary asset in design, including understanding relevant physics concepts, technological proficiency, and pedagogical competence. Creative design facilitates the integration of technology abilities with physics issues and pedagogical knowledge simultaneously. Design creativity necessitates problem-solving and decision-making abilities in brainstorming environments. A robust imagination is also beneficial in creating a distinctive design.

On the other hand, the variable, *Video/Capcut and the like*, got the lowest Mean of 2.35 with SD = 0.82, described as Sometimes and interpreted as Utilized. As argued by Шреняпа (2018) that incorporating video into classroom presentations and online lectures can improve students' learning experiences. Teachers encounter obstacles include restricted technological access, inadequate finances, lack of technical skills, time constraints, copyright limits, and student diversions. Restricted access to necessary equipment, insufficient technical knowledge, and inconsistent internet connection can impede successful video integration. Time limitations and copyright regulations can impede the integration process. Potential distractions can impede students' focus on class objectives.

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Problem 2. What is the level of teachers' confidence in technology?

Table 2 on the next page, shows the level of teachers' confidence in technology. It reveals that it has an overall Mean of 3.24 with SD = 0.61, described Agree and interpreted as Confident. This highlights the significance of promoting and maintaining a culture where teachers have confidence and expertise in technology. Having a strong belief in technology can enable teachers to confidently adopt creative teaching methods, discover new digital tools and resources, and efficiently adjust to changing educational technologies. Exploiting this confidence and improving teachers' technology skills can be achieved through ongoing professional development opportunities that concentrate on advanced technological skills, pedagogical integration tactics, and upcoming educational technologies.

Kwon et al. (2019) found that teachers with higher technology self-efficacy are more adaptable in using various technological tools and platforms to improve their students' learning experiences. Technology self-efficacy is influenced by individual attitudes, institutional support, and cultural norms on technology usage in education. It is essential to fully understand how technological self-efficacy interacts with contextual elements to design effective strategies for integrating technology successfully in educational environments. Professional development programs focusing on improving technology self-efficacy should consider factors like pedagogical beliefs, digital literacy skills, and the availability of resources and support systems. These factors can significantly influence instructional practices and enhance the effectiveness of such programs.

Table 2. Teachers' Confidence in Technology

Teachers' Confidence in Technology	Mean	σ	Description	Interpretation
<i>I feel confident...</i>				
1. that I understand computer capabilities well enough to maximize them in my classroom.	3.59	0.39	Strongly Agree	Very Confident
2. in my ability to evaluate software for teaching and learning.	3.29	0.57	Agree	Confident
3. that I can use correct computer terminology when directing student's computer use.	3.15	0.62	Agree	Confident
4. that I can mentor students in appropriate uses of technology.	3.17	0.66	Agree	Confident
5. that I have the skills necessary to use the computer for instruction.	3.20	0.63	Agree	Confident
6. that I can successfully teach relevant subject content with appropriate use of technology.	3.24	0.62	Agree	Confident
7. I can help students when they have difficulty with the computer.	3.24	0.65	Agree	Confident
8. I can effectively monitor students' computer use for project development in my classroom.	3.17	0.69	Agree	Confident
9. I can regularly incorporate technology into my lessons, when appropriate to students' learning.	3.26	0.63	Agree	Confident
10. about selecting appropriate technology for instruction based on curriculum standards.	3.27	0.65	Agree	Confident
11. about keeping curricular goals and technology uses in mind when selecting an ideal way to assess student learning.	3.16	0.61	Agree	Confident
12. about using technology resources (such as spreadsheets, electronic portfolios, etc.) to collect and analyze data from student tests and products to improve instructional practices.	3.29	0.64	Agree	Confident
13. I can be responsive to students' needs during computer use.	3.13	0.59	Agree	Confident
14. about assigning and grading technology-based projects.	3.25	0.62	Agree	Confident
15. that I can consistently use educational technology in effective ways.	3.21	0.55	Agree	Confident
16. I am comfortable using technology in my teaching.	3.28	0.59	Agree	Confident
17. that I can provide individual feedback to students during technology use.	3.15	0.61	Agree	Confident
18. that, as time goes by, my ability to address my students' technology needs will continue to improve.	3.31	0.54	Agree	Confident
19. that I can develop creative ways to cope with system constraints and continue to teach effectively with technology.	3.22	0.58	Agree	Confident

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20. I am aware of all the resources available to me to help me successfully integrate technology into the classroom.	3.23	0.56	Agree	Confident
Overall	3.24	0.61	Agree	Confident

Note: 1.0-1.75- Not Confident, 1.76-2.50- Less Confident, 2.51-3.25- Confident, 3.26-4.0- Very Confident

Moreover, the indicator #1, *that I understand computer capabilities well enough to maximize them in my classroom*, has the highest Mean of 3.59 with SD = 0.49, described as Strongly Agree and interpreted as Very Confident. This high level of confidence in utilizing computer skills indicates a preparedness to effectively utilize technology to improve teaching and learning experiences. This implies a strong foundation of digital skills among teachers. Teachers that show this level of confidence are expected to take an active role in incorporating digital tools into their teaching methods which could result in the development of creative teaching approaches and improved educational results. Furthermore, this significant level of confidence suggests a solid foundation for acting as role models and mentors in digital literacy within their school communities. Utilizing the knowledge and skills of these teachers can motivate and enable their colleagues to adopt technology with the same level of assurance promoting a culture of ongoing learning and adjustment in the digital era. The acknowledgment of strong confidence in using computer capabilities offers a chance to utilize these strengths to advance digital pedagogy and enhance the technical proficiency of the teaching workforce.

According to Kwon et al. (2019), Teacher Self-efficacy (TSE) is highlighted as a critical component for technology integration since teachers tend to focus on tasks in which they are confident while avoiding those in which they are not confident. Teachers gain technology self-efficacy from positive past experiences with technology and positive experiences observed in others (Elstad & Christophersen, 2017; Kwon et al., 2019).

On the other hand, the indicator 13, *I can be responsive to students' needs during computer use*, got the lowest Mean of 3.13 with SD = 0.59, described as Agree and interpreted as Confident. Teachers' lack of proficiency in educational technology may be a reason for limited utilization of digital tools in education. Conversely, greater utilization of digital tools could improve their competency as shown by Marcelo and Yot-Dominiguez (2019). Previous studies have recognized that using technology in teaching has disadvantages such as limited interaction, difficulties in teaching online skills, time-consuming processes, and technology inadequacies. Educators' value beliefs influence the incorporation of technology as studied by Vongkulluksn et al. (2018).

Problem 3. Is there a significant relationship between the extent of teachers' utilization of digital tools and confidence in technology?

Table 3. Pearson's Correlation Test between the Extent of Teachers' Utilization of Digital Tools and Confidence in Technology.

Teachers' Utilization of Digital Tools	Confidence in Technology		
	r	P	Decision
PPT/Canva	0.50	0.000	Significant
Video/Capcut and the like	0.44	0.000	Significant
Excel/Spreadsheet	0.60	0.000	Significant

Note: $r = r\text{-value (Correlation Coefficient)}$, $p = p\text{-value (Significant Level)}$ $p < 0.05$

The table 3 shows the Pearson's Correlation test between the extent of teachers' utilization of digital tools and confidence in technology. The test reveals moderate positive correlation between all the variables. If the teachers' utilization of digital tools variables changes its direction their confidence in technology also changes in the same direction.

Table took the analysis at the independent variable level by looking at the correlation test while holding the dependent variable constant at a time. As can be seen from the same table, extent of teachers' utilization of digital tools and confidence in technology are significant at 0.05. In summary, taking it at the coefficient level, teachers' confidence in technology is correlated and influenced by their perception in digital tools variables, with a p value less than 0.05. Thus, the correlation analysis yielded that the null hypothesis test (H_0) was rejected with the following moderate positive correlation.

This infers that the significant relationship between digital tools like PPT/Canva, Video/Capcut and the like, and Excel/Spreadsheet and teachers' confidence in technology has deep implications for contemporary instructional methods. Teachers are improving their technological skills and confidence by incorporating these adaptable tools into their teaching methods. Increased confidence in using digital tools leads to a greater ability to adapt to changing educational technologies. Furthermore, when teachers integrate their knowledge and most effective methods in collaborative learning groups a culture of

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constant learning and creativity thrives. The strong relationship between digital tools and teachers' confidence in technology highlights their potential to alter 21st-century education promoting more innovative and effective teaching methods to cater to the different demands of modern learners.

Correspondingly, Vongkulluksn et al. (2018) studied into how teachers value views affected how they integrated technology. The researcher discovered that value beliefs both predicted how well teachers integrated technology and had a direct association with teachers' use of it. More study is required to clarify the effects of teachers' views on the incorporation of technology in the classroom (Vongkulluksn et al., 2018). Good attitudes can be related to improved time management, attendance, and the value of utilizing technology in the classroom. (Beltran-Sanchez et al., 2020). Teachers who use proficient technology can efficiently manage resources, optimize administrative processes, and prioritize meaningful students' engagement. This technique further promotes students' regular course attendance, resulting in enhanced academic achievements. Acknowledging the significance of technology in education also enables students to cultivate their proficiency in digital literacy.

IV. CONCLUSIONS

On the basis of the aforementioned findings, the following conclusions can be made:

1. Teachers find it easy using spreadsheet software since it is widely used and essential in educational settings especially on the use for grade tracking, attendance and data management. It highlights the importance of this digital tool in organizing administrative tasks and enhancing efficiency in educational settings. Creating video lessons specifically through Capcut seems hard for them since it will take time to do it and not easy to do.

2. Teachers are confident on technology since they are using it each day. They may not know how to manipulate all the applications but they use their laptop most of the time make them confident. Teachers feel they possess sufficient knowledge and skills to make the most out of the available technological resources in their classrooms. They believe they can utilize computer capabilities to enhance their teaching methods, engage pupils more effectively, and facilitate learning experiences that utilize digital tools to their fullest potential.

3. The more teachers use the digital tools specifically powerpoint/canva, video/Capcut and the like, and excel/spreadsheets the higher their confidence level on technology. Therefore, being knowledgeable and skilled with these digital tools increases teachers' confidence in using technology.

V. RECOMMENDATIONS

Based on the findings and conclusions generated from this study, the researcher has formulated the following recommendations:

1. School can enhance teachers' utilization of CapCut by organizing thorough training in SLAC sessions, offering continuous assistance, promoting a collaborative environment, and encouraging for experimentation. These methods will equip teachers with the essential skills and confidence to efficiently utilize the tool, improving student learning experiences.

2. Teachers can benefit from tailored professional development, encouragement of cooperation, continuous technical support, and acknowledgment of their achievements to enhance their confidence in utilizing digital tools for teaching. These strategies can assist teachers in overcoming anxieties, enhancing student learning results, and motivating them to pursue creative teaching methods in the digital era

3. Schools may provide thorough training sessions, technical assistance, and chances for cooperation to boost teachers' confidence in video editing programs such as CapCut. The hands-on workshops should be interactive, allowing teachers to experiment with editing techniques and receive personalized advice. Offering online tutorials, troubleshooting instructions, and community forums can assist teachers in overcoming obstacles and promoting an supportive learning environment.

REFERENCES

- 1) Aflalo, E., Zana, L., & Huri, T. (2018). The interactive whiteboard in primary school science and interaction. *Interactive Learning Environments*, 26(4), 525-538.
- 2) Basuki, A. (2022). Canva for Education as a learning Tool for Center of Excellence Vocational School (SMK Pusat Keunggulan) Program to prepare competitive graduates in the field of creative skills in the digital age. https://www.academia.edu/82032113/Canva_for_Education_as_a_Learning_Tool_for_Center_of_Excellence_Vocational_School_SMK_Pusat_Keunggulan_Program_to_Prepare_Competitive_Graduates_in_the_Field_of_Creative_Skills_in_the_Digital_Age?f_r=1197942

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- 3) Bhasin, H. (2023, June 12). Causal Research – Meaning, explanation, examples, components. Marketing91. <https://www.marketing91.com/causal-research/>
- 4) Broman, K. W., & Woo, K. (2018). Data organization in spreadsheets. *The American Statistician*, 72(1), 2–10. <https://doi.org/10.1080/00031305.2017.1375989>
- 5) Chambers, C., & Scaffidi, C. (2010, September). Struggling to Excel: A Field Study of Challenges Faced by Spreadsheet Users. 2010 IEEE Symposium on Visual Languages and Human-Centric Computing. <https://doi.org/10.1109/vlhcc.2010.33>
- 6) Churiyah, M., Basuki, A., Filianti, F., Sholikhan, S., & Fikri Akbar, M. (2022, March 1). Canva for Education as a Learning Tool for Center of Excellence Vocational School (SMK Pusat Keunggulan) Program to Prepare Competitive Graduates in the Field of Creativity Skills in the Digital Age. *International Journal of Social Science Research and Review*, 5(3), 226–234. <https://doi.org/10.47814/ijssrr.v5i3.228>
- 7) Djoub, Z. (2019). Teachers' Attitudes Towards Technology Integration. *TPACK*, 32–67. <https://doi.org/10.4018/978-1-5225-7918-2.ch003>
- 8) Dyhrkopp, C. (2021). Technology use in education by students and teachers. Retrieved January 07, 2022, from https://nwcommons.nwciowa.edu/education_masters/341/
- 9) Kennedy, G. M. (2023). Challenges of ICT integration in teachers' education: A case study of the College of Education, University of Liberia. *INTERNATIONAL JOURNAL OF SOCIAL SCIENCE AND EDUCATION RESEARCH STUDIES*, 03(05). <https://doi.org/10.55677/ijssers/v03i5y2023-15>
- 10) Kibirige, I. (2023). Primary teachers' challenges in implementing ICT in Science, Technology, Engineering, and Mathematics (STEM) in the Post-Pandemic Era in Uganda. *Education Sciences*, 13(4), 382. <https://doi.org/10.3390/educsci13040382>
- 11) Holisah, H. (2023, June 10). Development of Capcut Application in Natural and Social Science Learning for Elementary School. *ejournal.insuriponorogo.ac.id*. <https://doi.org/10.37680/scaffolding.v5i2.2870>
- 12) Ira Amalia Harahap, & Dinda Yarshal. (2023, July 31). Development of Digital Learning Media Helped Capcut on Theme Care Against Living Things in Class IV SD. *International Journal of Educational Research Excellence (IJERE)*, 2(2), 166–172. <https://doi.org/10.55299/ijere.v2i2.456>
- 13) Kennedy, I. and Cronjé, J., 2023 The Dynamics of Access to ICT and Technology Practices of Secondary School Teachers, *The Electronic Journal of e-Learning*, 21(3), pp 200-210, available online at www.ejel.org
- 14) Kurt, S. (2019, September 16). TPACK: Technological Pedagogical Content Knowledge Framework - Educational Technology. *Educational Technology*. <https://educationaltechnology.net/technological-pedagogical-content-knowledge-tpack-framework/>
- 15) Lata, D. K. (2020, March 26). Digital competence and life skills a study of higher education teachers. <https://shodhganga.inflibnet.ac.in/handle/10603/285777>
- 16) Liisa Myyry, Veera Kallunki, Nina Katajavuori, Saara Repo, Tarja Tuononen, H. Anttila, P. Kinnunen, Anne Haarala-Muhonen, E. Pyorala (2022). COVID-19 Accelerating Academic Teachers' Digital Competence in Distance Teaching. <https://doi.org/10.3389/educ.2022.770094>
- 17) Mittoo, C. W. (n.d.). How Technology Teachers and Coaches Use Digital Tools in Instruction. *ScholarWorks*. <https://scholarworks.waldenu.edu/dissertations/11382/>
- 18) Myyry, L., Kallunki, V., Katajavuori, N., Repo-Kaarento, S., Tuononen, T., Anttila, H., Kinnunen, P., Haarala-Muhonen, A., & Pyörälä, E. (2022). COVID-19 Accelerating academic teachers' digital competence in distance teaching. *Frontiers in Education*, 7. <https://doi.org/10.3389/educ.2022.770094>
- 19) R, K. K. (2016). *Atitude and aptitude of teacher educators towards information and communication technology*. <https://shodhganga.inflibnet.ac.in/handle/10603/207884>
- 20) Read, M. (2022). RAT. *The RAT Technology Integration Model*. <https://doi.org/10.59668/371.7485>
- 21) Rezkyana, D., & Agustini, S. (2022, March 9). The Use of Canva in Teaching Writing. *Proceedings Series on Physical & Formal Sciences*, 3, 71–74. <https://doi.org/10.30595/pspfs.v3i.267>
- 22) Teachers' Technology Self-Efficacy and Technology Integration in Social Studies classes in Rural and Non-Rural Schools - ProQuest. (n.d.). <https://www.proquest.com/dissertations-theses/teachers-technology-self-efficacy-integration/docview/2667826274/se-2>
- 23) Teng, Y., & Wang, X. (2021, May 28). *The effect of two educational technology tools on student engagement in Chinese EFL courses*. *International Journal of Educational Technology in Higher Education*; Springer Nature. <https://doi.org/10.1186/s41239-021-00263-0>

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- 24) View of CanVa for Education as a learning tool for Center of Excellence Vocational School (SMK Pusat Keunggulan) program to prepare competitive graduates in the field of creativity skills in the digital age. (n.d). <https://ijssrr.com/journal/article/view/228/171>
- 25) View of Learning from the early adopters: developing the Digital Practitioner. (n.d.). https://journal.alt.ac.uk/index.php/rlt/article/view/1450/pdf_1
- 26) Wilson, L. (2023, October 30). Correlational Research Design- definition, Methods and Examples. MyAssignmentHelp Blog - Best Assignment Service Blogs. <https://myassignmenthelp.com/blog/correlational-research/>
- 27) Yundayani, A., Susilawati, S., & Chairunnisa, C. (2019). Investigating the effect of Canva on students' writing skills. English Review: Journal of English Education, 7(2), 169-176. doi: 10.25134/erjee.v7i2.1800.



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