

TEACHING AND LEARNING WRITING IN THE DIGITAL AGE

Funmilayo Mabel OGUNTADE

Federal University of Technology, Akure, General Studies Unit, Institute of Technology-Enhanced-Learning and Digital Humanities (INTEDH), Nigeria

Abstract

This study reviewed various literature on teaching writing in the digital age and its benefits for teaching and learning writing. This paper is to encourage and support initiatives to develop people capable of engaging in the personal, political, practical, artistic, and scholarly types of writing that are required for effective participation in their social environments in the 21st century. To participate fully in any society today, literacy skills must be taught in schools. Literacy is necessary for learning and acquiring new skills whether vocational or academic skills. Many students today all over the world are said to be digital natives and as a result, teachers should explore this opportunity by integrating technology in teaching their students some skills especially writing. From the literature, it was revealed that digital tools have helped in improving students' writing skills tremendously. Communication, creativity, critical thinking, problem-solving, and global awareness, are improved by the use of digital technologies. Despite these, researchers discovered that technology harms students in terms of students' inability to draw a line between "formal" and "informal" writing, lack of funds from the government to promote digital teaching and learning, etc. It was also revealed that teachers must identify the most accessible digital tool that will work for them and their students. It was concluded that teachers who are not digitally literate need to go for training on how to integrate digital tools into teaching. Beyond this, the government also needs to support teachers and students with free or affordable digital facilities that will make digital teaching and learning possible in our schools.

Key Words: Digital Tool, Writing, Literacy, Integrating Technology.

Introduction

Writing entails the conversion of speech sounds into text. Speech recognition aids in translating the spoken language into text (Bano, Jithendra, Lakshmi Niharika, & Sikhi, 2020). Writing, just like reading, must be taught. For a student to be able to write, he must learn a series of skills because it involves several aspects, such as spelling, handwriting, and composing text. Learning how to write also requires that students be taught writing mechanics. These are things that can help a student to communicate effectively. Students start learning how to write from childhood. From primary school, students are taught how to hold pencils, and how to draw straight lines,

curves, and alphabets which are also called letter formation. At this stage, they also learn how to write and read numbers in either Arabic or Roman numerals. Teachers at the primary school start to teach writing by teaching their pupils handwriting. This is a skill that is taught to a child before he can begin writing. Many children will require clear instructions to physically produce writing, according to research evidence (Edwards, 2003). Students gradually learn how to improve their writing skills, over the years as they learn to think about language in new ways. Students must learn to spell different types of words in the target language and this will help in enhancing their writing skills. They

must be able to spell words correctly without errors. Errors in spelling may distort the flow of thought of the reader hence giving a different meaning entirely. Berninger *et al.* (2006) discovered that direct handwriting instruction combined with visual clues and verbal instruction resulted in improved handwriting.

Writing skills are critical skills for students (Laurinavicius, 2017). Writing is more than just putting words on paper; it is a form of expression. It is an excellent communication tool. Writing allows students to convey their thoughts, ideas, and emotions simply and concisely (Lestari & Holandyah, 2017). The ability to effectively express ideas in writing is a valuable life skill that is required for success in a range of academic and professional pursuits.

Writing skills are crucial to education. They are necessary for writing essays, research papers, and projects demonstrating student's knowledge of a subject and critical thinking skills. Effective writing and effective communication are synonymous (Ramagya School, 2024). To write successfully, students must grasp certain structures. According to Mukiminin (2012), effective writing requires grammar, structure, style, mechanics, and flow. Also, writing is a mental workout that requires clarity of thinking. It encourages students to think critically, organise their thoughts rationally, and give evidence to back up their claims (Gabdullina, 2023). These cognitive abilities are not limited to writing; they influence all aspects of learning and decision-making (West, Malcolm, Keywood, & Hill, 2019).

Students who are proficient in writing do have a lot of confidence. This confidence can be transferred into other aspects of their academic and personal lives, allowing them to face obstacles with perseverance. Self-confidence is an individual attribute

that contributes to successful second language acquisition. Some research claims that no language-learning activities can be carried out successfully without it (Lasiyah, 2017, p. 18). Foreign language learners with high overall self-confidence perform well and are likely to believe they are capable learners (Mardiansyah, 2018).

In an era of widespread remote collaboration, the written word is frequently the dominant mode of communication. Students with strong writing skills can better express themselves, collaborate with classmates, and make an impact on their teachers, employers, or potential coworkers. Writing transcends borders in today's interconnected society. It enables students to engage in cross-cultural debates, express their views to a global audience, and participate in conversations about pressing global concerns. Writing connects students to the greater world (Rcademy, 2024).

Writing skills are aided when students have a good understanding of the actions required to complete learning tasks (Palincsar, David, Winn, & Stevens, 1991 as cited in Access Center, 2004). The information, structures, questions, and organisational frameworks that will assist students in approaching new literacy concepts must be provided. (Gallimore and Tharp, 1999 as cited in Access Center, 2004). For the child to develop good writing skills, he must be instructed properly (Pressley, Mohan, Fingeret, Reffitt, & Raphael-Bogaert, 2007). Literacy development does not progress within a day. It evolves throughout an individual's lifetime. Becoming a reader or writer is a skill that must be acquired over time; thus, being a reader and writer entails constant learning.

Literacy is learnt through acquisition, but additional supports like the teaching strategy and

technological tools may be needed to attain explicit knowledge. Recent technological developments have had a swift and significant influence on how we read, write, and communicate (Anderson *et al.*, 2014). Technology may be an appropriate strategy for supporting students generally as well as struggling writers. Sandolo (2010) opines that as new technology is being introduced, teachers have more opportunities to share strategies and techniques that help those who struggle with writing. Students create lengthier texts and struggling writers are more fully involved in writing tasks when utilising software like speech synthesis and spelling check (Agélie Genlott & Grönlund, 2016; Liberg, 2014). Online tools and programmes, mobile technology, assistive technology, and offline word processing applications are the most often used technology integrations in writing schools (Wen & Walters, 2022). According to Ting, Marzuki, Chuah, Misieng, and Jerome (2017), in today's modern society, technology is widely used among students and these students are digital natives, meaning, they were born during the digital era and are accustomed to using technology in their daily lives. Also, Gerber & Price, (2011); Kist, (2010); and Kress, (2003) believe that email, instant messaging, text messaging, digital gaming, social networking, and applications software have all become vital parts of students' community and personal literacies. Laptops, video equipment, multimedia projectors or power points, digital cameras, the internet, social media, computer networks, telephones, tablets, Skype, YouTube, and other ICT tools are among those mentioned by Ezegbe, Okeke, Ome, Onah, and Achebe (2017) as aids to learning because of the various functions they play in streamlining learning of all kinds. This made Anderson *et al.*,

(2014) believe that if technology is integrated into the classroom, it has a high probability of helping to connect students' prior knowledge which will eventually help the students build on their previous experiences.

Apart from this, social media websites such as Facebook, Instagram, and Twitter are popular and commonly used as a means to give and receive feedback as a way to communicate with others and express their opinions (Shahbaznezhad, Dolan, and Rashidirad, 2021). It is believed that technology will also improve crucial elements of successful writing education, such as concept creation and writing for real audiences and goals (Graves, 1983). Ammanni and Aparanjani (2016) explain that ICT facilities such as laptops, iPods, tablets, and smartphones have made English Language learning easier. Also, Ossai, Uzoegwu, and Egbe (2017) further explain that "ICT helps learners to process the information on their own". Nwachukwu, Okop, Imo & Nwizu (2017) explain that time has demonstrated that education has gone beyond the walls of the classroom or school premises as other effective channels like the mass media and social media, are being used to disseminate information and gain knowledge. To encourage and support initiatives that can make people acquire the capability to engage in personal, political, practical, creative, and scholarly writing required for effective participation in their social environments, this study will review various literature on teaching writing in the digital age and its benefits for teaching and learning of writing.

Importance of Writing

Writing plays a central role in schooling and it provides the medium and mode through which much of education takes place. Students write

when they are in class for lectures or lessons and through writing, students can communicate what they have learnt in the examination. Thus, writing is used by schools to assess students' learning progress. It is the principal mode and medium used in the examination system. Freedman, Hull, Higgs & Booten, (2016) assert that to participate fully in any society today, literacy skills must be learnt in schools. They believe that the generation, transmission, and transformation of knowledge almost always depends on writing whether on paper, computer screen, or mobile phone. People who lack literacy are unable to access these networks of knowledge or even the most fundamental information they require daily. Agricultural output, HIV/AIDS and other diseases, economic development, and intercultural interactions are just a few of the main global concerns in which literacy plays a key role.

Literacy is necessary for learning and acquiring new skills whether vocational or academic skills; that is one of the reasons citizens worldwide need to learn not only to read but also to write effectively. In Nigeria, language teachers are in charge of teaching writing, especially academic genres that should encourage students to think critically and creatively. To develop relevant life and career skills, students now need instruction not only in academic subjects like reading, writing, and arithmetic but also in other abilities such as digital learning, information gathering, and management, media awareness, and usage. According to Lenhart, Hitlin, and Madden, (2005), these technologies are text-based, they constitute another potential space for writing under a broadly constructed definition of the term

Given the increased significance of writing in global and digital contexts,

preparing teachers to offer all children access to activities related to the composition of different texts is more important than ever. It is however important to look at how teachers teach writing in order to create an approach through which they can fuse writing instructions with the tools of the global digital world. This will support teachers in making writing in school a generative experience for students from a variety of cultural spaces and places.

Teaching Students to Write in the Digital Age

A teaching tool that can successfully utilise technology to enhance the learning experience of students is referred to as digital education (Panworld Education, 2017). It encompasses a wide range of tools and practices, which include increased effort and quality of teaching resources, innovative time and space management, online and blended content and courses, online classroom assessments, technology applications in classrooms and school buildings, adaptive software for students with special needs, learning platforms, high-level and challenging content, and teaching. In addition, digital learning provides a platform for collaboration within expert communities of practice.

Akinwamide (2009) claimed the digitalised educational enhancement programme may pay dividends for language learners when used appropriately in the acquisition of language skills. He further explained that the programme not only improves individual capability development but also analyses inputs and speeds up outputs. Learners can benefit from new opportunities for learning and education as a result of digital technologies, during crises as was the case in some schools during the Covid-19 lockdown in Nigeria. Digital technologies also give children the right

to use information about issues affecting their communities, and they can play a role in helping to solve them. Digital technologies can provide economic opportunities for young people by providing training opportunities and job-matching services (Robinson *et al.*, 2019). The connections between new technology and pedagogical submissions have addressed the diverse needs of second language learners to some extent, and any global discovery aimed at reducing learners' limitations is a welcome development in a rapidly changing world of technology (Akinwamide, 2009).

Digital technology is centered on the learner and allows for peer interactions. Teachers do not dominate the classroom; rather, they serve as moderators or facilitators. Digital tools are the best way to help your students to learn to work together. This is a novel method of engaging learners, as well as encouraging social and intellectual interactions among them (Oblinger, 2005 cited in Akinwamide, 2009). Also, according to Berg (2017), students may now distribute their work far more broadly than they did in the past thanks to digital resources. Digital tools allow students to be more creative in their writing. The use of wikis, blogs, and videos may all help students feel more pride in and ownership over their work. Students now have a far greater variety of expression than ever before because of digital resources (Berg, 2017).

Given the procedural character of writing and what it requires to use writing to express a writer's thoughts coherently and logically, it is however critical to develop a writing task that integrates digital technology. All the other language macro-skills could be learned by analysing and coordinating with digital technology. Other crucial skill sets, including communication, creativity, critical thinking, problem-

solving, digital and financial literacy, entrepreneurship, and global awareness, are improved by the use of digital technologies (Okeke, 2021).

Computer technology is also a useful teaching tool because it enhances various ways of teaching by providing students with a variety of knowledge and information to expand students' learning experiences in real and authentic contexts (Alamri, 2021). It is generally believed that computers offer multiple benefits for teaching and learning writing skills. It is widely believed that the use of word processors can offer writing support of various types give automatic corrective feedback to the writer and stimulate collaborative learning (Cunningham, Rashid & Van Le, 2019). Knowing which digital technologies to use helps to create a fascinating and challenging digital leadership environment where students can learn and develop.

Constraints to Teaching Writing Using Digital Devices

There are some common challenges faced by educators and their students when attempting to integrate technology into the classroom. The Federal Government of Nigeria introduced computer education and literacy in secondary schools in 1997. The essence was to introduce computer literacy, develop the use of computers as a teaching tool in all subject areas, and encourage students to become familiar with computers, among others (Bada, et al 2010). As good as this initiative was, the computers in most of our laboratories in our secondary schools are not enough to train our students. Education has not been funded effectively by the Nigerian Government because of its weak financial condition (Bada *et al.*, 2010).

Integrating technology in the classroom will require much more digital equipment and connectivity of

such equipment to the Internet for it to function effectively. Inconsistent computer access could make it extremely difficult for teachers to integrate technology into existing lesson plans. Where these facilities are unavailable, implementing educational technology cannot be feasible. The most basic step toward effective technology integration is widespread access to the equipment necessary to run educational computer programmes.

Apart from the access constraint, most teachers who are involved in integrating technology into teaching methods are not computer-literate enough to do so (Johnson, Jacovina, Russell, & Soto, 2016). Many teachers do not have adequate professional development and training required to use technology to its full potential. According to Ertmer *et al.*, (2012), the most commonly cited reason for the lack of technology, and implementation in the classroom is inadequate professional development and training of teachers.

If teachers are not trained on how to use digital technology in classrooms, they may not know how to use technology to teach. If that is the situation, the teachers will lack the confidence to apply what they are not used to. It is also possible that some teachers may not appreciate the fact that technology can improve their instructional methods. Teachers who do not appreciate and recognise the advantages of educational technology may find it difficult to integrate new technologies into their classrooms efficiently and effectively (Johnson *et al.*, 2016; Chien, Wu & Hsu 2014).

In research done by Purcell, Buchanan, and Friedrich (2013) in the United States, teachers shared some concerns and challenges they face teaching writing in today's digital environment. Among them are

students' inability to draw a line between "formal" and "informal" writing. They believe that some students mix up informal language and style in formal writing assignments. They also observed that many students are used to abbreviating words unnecessarily in their writing because they are trying to be as brief as they can. This may affect the student's ability to write longer texts and the ability to think critically. Finally, they believe students may become too familiar with this digital tool to the extent of seeing it as a toy since that was the approach they developed in their introduction to digital tools as young children.

Other constraints to the use of technology in teaching especially writing is lack of time, rigid school curricula, textbooks, and a lack of support from the government. Beyond these, students too could be easily distracted online because of the diverse information that is available on the internet. The teacher should be able to regulate and use appropriate tools that can keep the students busy and focused on their writing assignments online (Purcell *et al.*, 2013).

Social Media Effects on the Use of Digital Technologies in Teaching Writing

The activities of youths on social media come with some peculiarities in thinking and communication. The peculiarities involve the use of abbreviations and emojis. These seem to indicate a sense of urgency and lack of patience to think through and communicate complete thoughts in the everyday sense. Only the "initiated" can adequately understand and communicate with the youths in the social media "language". This was the experience of Omoera, Aiwuyo, Edemode, and Anyanwu (2018) in their study which made them to conclude that the youths adopt a certain

option/brand of English which cannot be located within the matrix of Standard English expressions such as 'u' for 'you', 'gr8t' for 'great', 'ur/urs' for 'your/yours', among other deviational patterns. They claimed that these social media abbreviations have crept into their writing consciousness in classes and examinations. This development can have serious implications for effective and efficient writing among Nigerian youths, especially in formal situations. Thus, if there is no proper monitoring by teachers and deliberate effort on the part of the students the appropriate way of writing may be jettisoned all in the name of trying to be brief in passing across messages. Students need to differentiate between formal and informal conversations. Teachers should encourage their students to write with clarity and at the same time learn to be concise when writing.

Use of Technology for Teaching Writing among ESL/ EFL Users

Alamri (2021) investigates the challenges encountered by ESL teachers when they implement technological tools in the writing classroom. The study involved observing several writing classes from different levels at an English Language Institute at a southwestern university in the United States. The study revealed some challenges that hindered teachers from applying technology in the writing classroom. Such challenges were technical problems, students' attitudes towards using technology, lack of time, lack of computers and other devices, and lack of technical support.

The Alamri (2021) study was conducted in the United States where the learning environment is more conducive and because both the education authorities and parents are more able to provide the financial support required to acquire the

required technological tools. This is however not the case in developing economies where resources to support education are scarce. Thus, we expect a more intense technical challenge constraining the deployment of technology for teaching generally and for teaching writing in particular. This has been the experience in the Institute of Technology-Enhanced-Learning and Digital Humanities (INTEDH), Federal University of Technology, Akure (FUTA) while deploying the blended learning platform which requires students to have some level of access to digital technologies.

The FUTA experience is similar to the one described by Baba and Odiba (2015) who examined the effects of Information and Communication Technology (ICT) on the Nigerian educational system with a focus on Kogi State University (KSU), Anyigba. The critical challenges are a lack of ICT professionals, resources, infrastructure, and management support which affect the effective deployment of technology in teaching and learning in Nigerian schools. The challenges all result from inadequate finance which limits access to every other requirement for effective deployment of technology for teaching and learning. These results imply that for digital teaching and learning to be very effective there will be a need to make available more ICT equipment and facilities to enhance students' skills and performance in the use of ICT in teaching and learning.

One other challenge highlighted by Alamri (2021) is the attitude of students to technology as it affects the deployment of technology for teaching and learning the English Language among second language users. Generally, digital technology is seen first and foremost in the mode of entertainment technology. It could therefore constitute a distraction to the

students even while lectures and other forms of blended learning interactions are ongoing (Pursel *et al.*, 2013). On the other hand, students from very low-income backgrounds who are just being exposed to the use of digital technologies at a close range may have some level of inferiority complex towards the technology making it slightly difficult for them to catch up on its use in learning writing even when the facilities are freely provided.

Just like the students from a low-income background, some teachers feel intimidated learning how to use digital technologies in teaching (Bada *et al.*, 2010). According to Chien, Wu, and Hsu (2014), the negative attitude of some students and teachers toward the deployment of digital technologies in teaching writing compounds the challenges of modernizing the techniques of teaching and learning writing.

In another study by Egoigwe *et al.*, (2020) the impact of Information and Communication Technology (ICT) literacy in teaching and learning among undergraduate students in Southeast Nigerian universities was investigated. The findings of the study revealed that computers, mobile phones, and the internet were the three ICTs mostly used by undergraduate students. Many parents in Nigeria cannot afford to buy a computer for their wards because it is usually very expensive. Instead, they buy Android phones for them so that they can use them to browse and get assignments done. With the increasing devaluation of the Nigerian currency, even the Android phone is becoming unaffordable for some parents. Some students used to seek permission from their lecturers to be exempted from the learning platform because they lacked access to computers and Android phones.

According to Egiowe's (2017) findings, many undergraduates lack

ICT skills. Some of the Nigerian university students got introduced to the use of computers while preparing for their Joint Admission Matriculation Board Examination. This is due to inadequate ICT infrastructure in secondary schools. Thus, it takes them some precious time, upon resumption in the university to improve their ICT skills meanwhile their lecturers may just assume the students have the requisite skills to cope with their assignments. This, however, may not be a challenge peculiar to the Nigerian educational system. Cunningham, Rashid, and Van Le (2019) in their study on the effects of training on learners' awareness and use of the writing support features available in Microsoft Office Word in New Zealand believe that international students may have lower levels of experience in using technology than the New Zealand students they study with. The participants in the study were English for academic purposes (EAP) students from China, Japan, Chile, and Brazil.

Non-reliability of public electricity supply in Nigeria is a peculiar feature of the economy that affects every sector. It is even more important for the deployment of ICT in the teaching and learning environment. In the absence of reliable public electricity supply, private provision becomes the norm which invariably makes the use of technology in teaching and learning generally very expensive.

Despite the challenges to the deployment of digital technologies in teaching and learning writing, the research results in the literature agree that digital teaching and learning have yielded tremendous returns for both teachers and students. It has also been proven that when technology tools are used among EFL/ESL students it has a significant impact on their writing skills. Examples of such research results are found in the works of

Bikowski and Vithanage (2016), Al-Wasy (2020), and Dahlström and Boström (2017).

Conclusion

Technology can assist students to become better writers and provide them with the skills they need to succeed in the modern world. To help students develop their writing abilities and to inspire more teachers to utilise technology in the classroom fully, it is necessary to advance the study of how technology is used to teach writing. There are a ton of language learning tools available on the internet, computers, and electronic media that can help students who want to learn how to write. Teachers can also research tools that can be readily available for their students so that they can recommend them for their teaching. It is also crucial to remember that teachers must learn how to effectively incorporate technology into the curriculum and use it to improve learning opportunities and student achievement across board. Technology integration in the classroom will require the ongoing collaborative efforts of teachers, educational technology professionals, school administrators, and researchers. To make the use of digital technology accessible to many, the government and its agencies must ensure that they support their technology integration policy by providing funding to schools. They can also consider modifying the curriculum to promote technology integration.

Recommendations

The review on the use of digital technology has brought to the fore that it will have considerable positive impacts on student performance despite its potential barriers. Given the findings from the literature, the following recommendations are made:

- ✚ The government must offer educators preparation that emphasises constructivism and student-centered learning.
- ✚ The government must make sure that it provides teachers and students with access to technology resources, reliable electricity, and adequate training in the use of technology and the internet.

References

- Access Center (2004). Accessing skills toward successful writing development. Washington, DC: Author. Retrieved September 10, 2019, from <http://www.ldonline.org/article/22026/>
- Agélii Genlott, A., & Grönlund, Å. (2016). Closing the gaps: Improving literacy and mathematics by ICT-enhanced collaboration. *Computers & Education*, 99, 68–80. <https://doi.org/10.1016/j.compedu.2016.04.004>.
- Akinwamide, T. K. (2009). Networking the process-approach to teaching writing skill: the digital enhancement dimension. The Cambridge International Conference on Open and Distance Learning.
- Alamri1, B. (2021). Challenges of Implementing Technology in ESL Writing Classrooms: A Case Study. *English Language Teaching*; 14(12). Pp 36 URL: <https://doi.org/10.5539/elt.v14n12p36>
- Alliance for Excellent Education. Digital Learning Day, (2018). Webinar: Blending teaching and technology to improve student outcomes. Retrieved October 10,

- 2019, from <https://digitallearningday.org/digital-learning-day>.
- Al-Wasy, B. Q. (2020). The effectiveness of integrating technology in EFL/ESL writing: A meta-analysis. *Interactive Technology and Smart Education*, 17(4), 435-454. <https://doi.org/10.1108/ITSE-03-2020-0033>
- [Ammanni, S. & Aparanjani, U. \(2016\). The role of ICT in English language teaching and learning. International Journal of Scientific and Engineering Research 7.7, 1-7. http://www.ijser.org. \(accessed 4/5/2020\).](#)
- Anderson-Pence, K.L., Shumway, J.F., and Jordan, K.E. (2014). Predictors of achievement when virtual manipulatives are used for Mathematics instruction. *REDIMAT—Journal of Research in Mathematics Education*, 3(2), 121-150. doi: 10.4471/redimat.2014.46
- Baba, P. A. & Odiba, I. A. (2015). Effects of Information and Communication Technology (ICT) on Nigerian Educational System: A Case Study of Kogi State University, Anyigba. *Journal of Education and e-Learning Research*. 2(4), pp. 52-59. ISSN: 2410-9991 <http://asianonlinejournals.com/index.php/JEELR>
- Bada, T. A., Oyewusi, L. Ojedokun, O. & Adewole, A. (2010). Uses of Computer and its Relevance to Teaching and Learning in Nigerian Educational System. *An International Multi-Disciplinary Journal, Ethiopia*. 4 (1) pp 519-528.
- Bano, S., Jithendra, P., Lakshmi Niharika, G. & Sikhi, Y. (2020). Speech to Text Translation enabling Multilingualism. *IEEE International Conference for Innovation in Technology (INOCON)* Bengaluru, India.
- Berg, B. (2017). Looking at the Impact of Digital Tools on Student Writing. Retrieved 7/29/2022 from <https://www.emergingedtech.com/2017/03/the-impact-of-digital-tools-on-students-writing/>
- Berninger, V. (2006). Early development of language by hand: composing, reading, listening, and speaking connections; three letter-writing modes; and fast mapping in spelling. *Developmental Neuropsychology*, 29(1), 3-30
- Bikowski, D. & Vithanage, R. (2016). Effects of web-based collaborative writing on individual L2 writing development. *Language Learning & Technology*, 20(1), 79-99. Retrieved from <https://llt.msu.edu/issues/february2016/bikowskivithanage.pdf>
- Chien, S. P., Wu, H. K., & Hsu, Y. S. (2014). An investigation of teachers' beliefs and their use of technology based assessments. *Computers in Human Behavior*, 31, 198-210.
- Cunningham, U., Rashid, S & Van Le, T. (2019), The Effect of Learner Training on the Use of Digital Tools to Support English Writing Skills. *Asian EFL Journal*.

- Dahlström, D. & Boström, B. (2017). Pros and Cons: Handwriting Versus Digital Writing. *Nordic Journal of Digital Literacy*. 12. DOI:10.18261/issn.1891-943x-2017-04-04
- Edwards L. (2003). Writing instruction in kindergarten: Examining an emerging area of research for children with writing and reading difficulties. *Journal of Learning Disabilities*. 36: pp136–148.
- Egoigwe, S. V., Igwe, N. J., Agboeze, M. U., Imo, C. Chinagorom, G., Ali A. A. Nwankwo, B. C. & Nweke, P. (2020). Impact of Information and Communication Technology (ICT) Literacy in Teaching and Learning among Undergraduate Students in South-East Nigeria. *Journal of Engineering and Applied Sciences* 15(7):1813 – 1820. DOI: 10.36478/jeasci.2020.1813.1820
- Ertmer, P. A., Ottenbreit-Leftwich, A., Sadik, O., Sendurur, E., & Sendurur, P. (2012). Teacher beliefs and technology integration practices: A critical relationship. *Computers & Education*, 59, 423-435.
- Ezegbe, Okeke, Ome, Onah, and Achebe (2017). Impact of Information and Communication Technology on Acquiring Literacy Skills Outside the Classroom among Adults in Nsukka. *Journal of Language Teaching and Research*, Vol. 11, No. 6, pp. 881-892, November 2020 DOI: <http://dx.doi.org/10.17507/jltr.1106.03>
- Freedman S. W., Hull G. A., Higgs J. M., Booten K. P. (2016). Teaching writing in a digital and global age: Toward access, learning, and development for all. In Gitomer D. H., Bell C. A. (Eds.), *Handbook of research on teaching* (5th ed., pp. 1389–1450). Washington, DC: American Educational Research Association.
- Gabdullina, S. (2023). The Potential of the Essay in Formative Assessment: Literature Review. *Education. Innovation. Diversity*, 2(6), 49-54. DOI: <https://doi.org/10.17770/eid2023.1.7176>
- Gerber, H. R., & Price, D. P. (2011). Twenty-first-century adolescents, writing, and new media: Meeting the challenge with game controllers and laptops. *English Journal*, 101(2), 68–73.
- Graves, D. H. (1983). *Writing: Teachers and children at work*. Exeter, NH: Heinemann Educational Books. doi:10.2307/357919
- Hull, Higgs & Booten, (2016) *Teaching Writing in a Digital and Global Age: Toward Access, Learning, and Development for All*. P 61. Publisher: American Educational Research Association. DOI Number: 10.3102/978-0-935302-48-6_23
- Johnson, A. M., Jacovina, M. E., Russell, D. E., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom. In S. A. Crossley & D. S. McNamara (Eds.) *Adaptive educational technologies for literacy instruction* (pp. 13-29). New York: Taylor & Francis. Published with acknowledgment of federal support.

- Kist, W. (2010). *The socially networked classroom: Teaching in the new media age*. Thousand Oaks, CA: SAGE.
- Kress, G. (2003). *Literacy in the new media age*. London: Routledge. doi:10.4324/9780203164754
- Lasiyah. (2017). *The correlation between self-confidence and speaking achievement of the Undergraduate Students of English Education Study Program, (Undergraduate's thesis)*. State Islamic University of Raden Fatah Palembang, Palembang, Indonesia.
- Laurinavicius, T. (2017). *Reasons Why Writing Remains a Critical Skill for Success*. Retrieved 8/7/2024 from https://www.huffpost.com/entry/reasons-why-writing-remain_b_12701380#:~:text=Be%20it%20lawyers%2C%20salespeople%2C%20teachers,the%20many%20branches%20of%20society.
- Lenhart, A., Hitlin, P., & Madden, M. (2005). *Pew Internet & American Life Project-Teens and Technology*. Washington DC: Pew Research Center.
- Lestari, A., & Holandyah, M. (2017). *The correlation between reading attitude and writing achievement of the eleventh-grade students of SMA Muhammadiyah 6 Palembang*.
- Liberg, C. (2014). *Att använda dator i tidig läs- och skrivundervisning 2011–2014*, Uppsala Kommun. Report from ALS-projektet. Uppsala: Uppsala Universitet.
- Mardiansyah, R. (2018). *A Correlation between Self-Confidence and Essay Writing Achievement*. *Journal Pendidikan Pengajaran*. ISSN |2355-3669|E-ISSN|2503-2518|Volume 5|Number 2|December 2018| 154 Available online at <http://jurnal.radenfatah.ac.id/index.php/educ>
- Mukminin, A. (2012). *Acculturative experiences among Indonesian graduate students in our higher education: academic shock, adjustment, crisis, and resolution*. *Excellence in Higher Education*, 3(1), 14-36. Retrieved from <http://ehe.pitt.edu/ojs/index.php/ehe/article/view/64>
- Nwachukwu, R. U., Okop, E. O., Imo, C. O. & Nwizu, S. (2017). *Utilization of e-learning technologies in distance education programmes in Awka-South Local Government Area, Anambra State*. *International Journal of Studies in Education* 15.2, 376-385.
- Okeke, C. S. (2021). *21st Century Skill Requirements by Business Education Students for Successful Business Entrepreneurship in Anambra State*. *Nigerian Journal of Business Education (NIGJBED)*. 8(1), p 140.
- Omoera, O. S., Aiwuyo, O. M., Edemode, J. & Anyanwu, B. (2018). *Impact of Social Media on the English Language Writing Abilities of Undergraduates in Ekpoma, Nigeria*. *Gist Education and Learning Research Journal*. 17 pp. 59-80. ISSN 1692-5777.
- Ossai, R. C., Uzoegwu, P.N. & Egbe, C.I. (2017). *English language teacher's utilization of effective ICT*

- strategies in the development of learner autonomy for sustainable development. *International Journal of Studies in Education* 15.2, 203-215. Panworld Education.
- Panworld Education, (2017). Benefits of Digital Learning over Traditional Education Methods. Retrieved 8/4/2022 from <http://www.panworldeducation.com/2017/03/23/benefits-of-digital-learning-over-traditional-education-methods/>
- Pressley, M., Mohan, L., Raphael, L. M., & Fingeret, L. (2007). How does Bennett Woods produce such high reading and writing achievement? *Journal of Education Psychology*, 99, 221–240.
- Purcell, K., Buchanan, J., & Friedrich, L. (2013, July 16). The Impact of Digital Tools on Student Writing and How Writing is Taught in Schools (Rep.). Retrieved September 2, 2020, from Pew Research Center website: http://www.pewinternet.org/file/s/oldmedia/Files/Reports/2013/PIP_NWP%20Writing%20and%20Tech.pdf
- Ramagya School, (2024). What is the importance of writing skills for students? Available at <https://ramagyaschool.com/blog/s/what-is-the-importance-of-writing-skills-for-students/#:~:text=Writing%20skills%20are%20at%20the,knowledge%20and%20critical%20thinking%20abilities>
- Rcademy, (2024). Effective Communication in Cross-Cultural and Diverse Environments. Retrieved 8/7/2024 from <https://rcademy.com/employees>
- Robinson, Danielle and Ida Mboob (2019). “Digital Jobs for Youth in Fragile, Conflict and Violence (FCV) Settings: Lessons from the Click-On Kaduna Pilot.” S4YE Knowledge Brief Series No. 7. Washington, DC: WBG & S4YE.
- Sandolo, L. (2010). "How can the use of Technology enhance writing in the classroom?" *Education Masters*. Paper 194. Retrieved 5/15/2022 from https://fisherpub.sjfc.edu/education_ETD_masters/194a
- Shahbaznezhad, H., Dolan, R., & Rashidirad, M. (2021). The Role of Social Media Content Format and Platform in Users' Engagement Behavior. *Journal of Interactive Marketing*, 53(1), 47-65. <https://doi.org/10.1016/j.intmar.2020.05.001>
- Ting, S. H., Marzuki, E., Chuah, K. M., Misieng, J., & Jerome, C. (2017). Employers' Views on The Importance of English Proficiency and Communication Skill for Employability in Malaysia. *Indonesian Journal of Applied Linguistics*, 7(2), 315–327. <https://doi.org/10.17509/Ijal.V7i2.8132>
- Tze Pheng, Kee and Hashim, Harwati and Ainil Sulaiman, Nur, The Use of Technology in Teaching of Writing Among Malaysian ESL Secondary School Teachers (2021). *Arab World English Journal (AWEJ) Special Issue on CALL Number 7*. July 2021, Available at SSRN:

<https://ssrn.com/abstract=3906310>

[Wen, X., Walters, S.M. \(2022\). The Impact of Technology on Students' Writing Performances in Elementary Classrooms: A Meta-Analysis, Computers and Education Open, Science Direct, 3, 100082, ISSN 2666-5573, <https://doi.org/10.1016/j.caeo.2022.100082>. \(<https://www.sciencedirect.com/science/article/pii/S2666557322000106>\)](#)

[West, H., Malcolm, G., Keywood, S., Hill, J. \(2019\). Writing a successful. Journal of Geography in Higher Education \(Taylor & Francis \(Routledge\) - Vol. 43, Iss: 4, pp 609-617](#)

