

Shifting from face-to-face to online teaching and learning: Growth opportunities experienced by Vanuatu primary school teachers

Effrel Morris

University of the South Pacific, Vanuatu:  <https://orcid.org/0009-0004-3005-3573>

Amton Serel Mwarakurmes

University of the South Pacific, Vanuatu:  <https://orcid.org/0000-0001-6338-0424>

DOI: <https://doi.org/10.70830/iejcp.2302.20344>

Opportunities for teachers' growth and development are important to support sustainable education in Vanuatu, Oceania, and beyond. Recently, in Vanuatu, as elsewhere, online learning has become significant, and its occasion under COVID-19 circumstances has been portrayed as a disruption. This study investigated the growth opportunities experienced by Vanuatu in-service primary school teachers during the shift from face-to-face teaching to online teaching and learning in the COVID-19 era. The research engaged sixty teachers across the six provinces of Vanuatu, exploring opportunities from both social and cognitive perspectives. Diverse growth opportunities in the form of sustaining learning benefits were uncovered. These included developing skills in independent learning, using available ICT devices, and designing personal study approaches. Hence, what may have been seen as a disruption is partly revealed as providing opportunities for professional growth and learning for the participants. Understanding growth opportunities, especially in circumstances of change, is important when approaching issues of sustainable education in Vanuatu and is relevant in Oceania and elsewhere.

Keywords: online learning, opportunities, exploring, teachers, sustainable, ICT infrastructure, interactive apps

BACKGROUND

Since the 1990s, the world has seen significant changes in the education landscape because of the ever-expanding influence of technology. One such development is the adoption of online learning across different learning contexts, whether formal or informal, academic and non-academic, residential or remote. Researchers and trainers began to witness schools, teachers, and students increasingly adopt e-learning technologies designed to allow teachers to deliver instruction interactively, share resources seamlessly and facilitate student collaboration and interaction (Elaish et al., 2019). Yet, according to Rasheed et al. (2020), issues concerning the challenges to the implementation of online learning continue to build. Contextual examples include that online teaching and learning are affected by poor network coverage, particularly in rural and remote areas. Coverage issues are worse during cloudy weather conditions in most rural areas of Vanuatu. In addition, the geographical challenge of the islands covered by high mountains and separated by vast expanses of sea make transportation and communication,

including network coverage, difficult between the islands, further isolating communities and complicating ICT infrastructure development.

In Vanuatu, all schools were closed during the COVID-19 pandemic, and schools in the capital, Port Vila, were immediately instructed to shift to home-school learning packages for early childcare and primary-level education. Secondary and tertiary-level schools opted for virtual learning (Ministry of Education and Training, 2019). The Vanuatu Institute of Teachers Education (VITE) followed suit, using online tools like the Moodle platform to deliver its special exit primary in-service diploma program. This led to the admission and enrolment of in-service primary school teachers into VITE for training via online delivery. Generally, for VITE in-service students, learning sometimes occurs through real-time interactions, where students engage directly with tutors and peers. At other times, learning occurs asynchronously, allowing students to work independently without immediate interaction or guidance from tutors. COVID-19 also disrupted this pattern. VITE works with English- and French-speaking sections of the Vanuatu population, a linguistic complexity that results from the country's former condominium status under two colonial powers, Britain and France. Bislama is a common language.

Our experiences in re-learning to teach online and the apparent lack of research on the effects of the shift from face-to-face teaching to online teaching in the context of Vanuatu suggest a need to study how teachers deal with online work opportunities. This study explores the opportunities that Vanuatu primary school teachers encountered in online learning from social and cognitive standpoints using a strengths-based key question: 'What are the opportunities for studying through online teaching and learning?'

LITERATURE REVIEW

Definitions

Many scholars have provided their perspectives on what online learning is. For example, Usher & Barak (2020) and Huang (2019) posit that online learning is a learning environment using tools like the Internet and electronic devices to deliver information. There are many benefits claimed for online learning. For example, Daniel (2016) argued that online learning paves the way for greater flexibility, allowing students to study at their own pace and time. Martínez-Caro et al. (2015) suggested that online learning yields personalised learning through interactive tools that enable experiences tailored to students' learning styles. Online learning helps learners to rely on themselves; instructors are no longer the solitary knowledge source but guides and advisors (Joshua et al., 2016). Learners also gain deeper insights into information through activities carried out in the classroom through an interactive video facility, which allows prompt responses from learners to activities (Gautam & Tiwari, 2016).

Benefits

According to Radu et al. (2015), online learning has cognitive benefits. These include allowing learners to gain control of their online learning time. Learners can also make autonomous decisions about how to spend their online learning time, making the learning experience more student-centred. Gautam and Tiwari (2016) noted that the value or quality of learning online is maintained despite the changes in time use because learners can go back to the same instructions and explanations. This is unlike face-to-face situations where explanations of the same concept may change depending on who is involved.

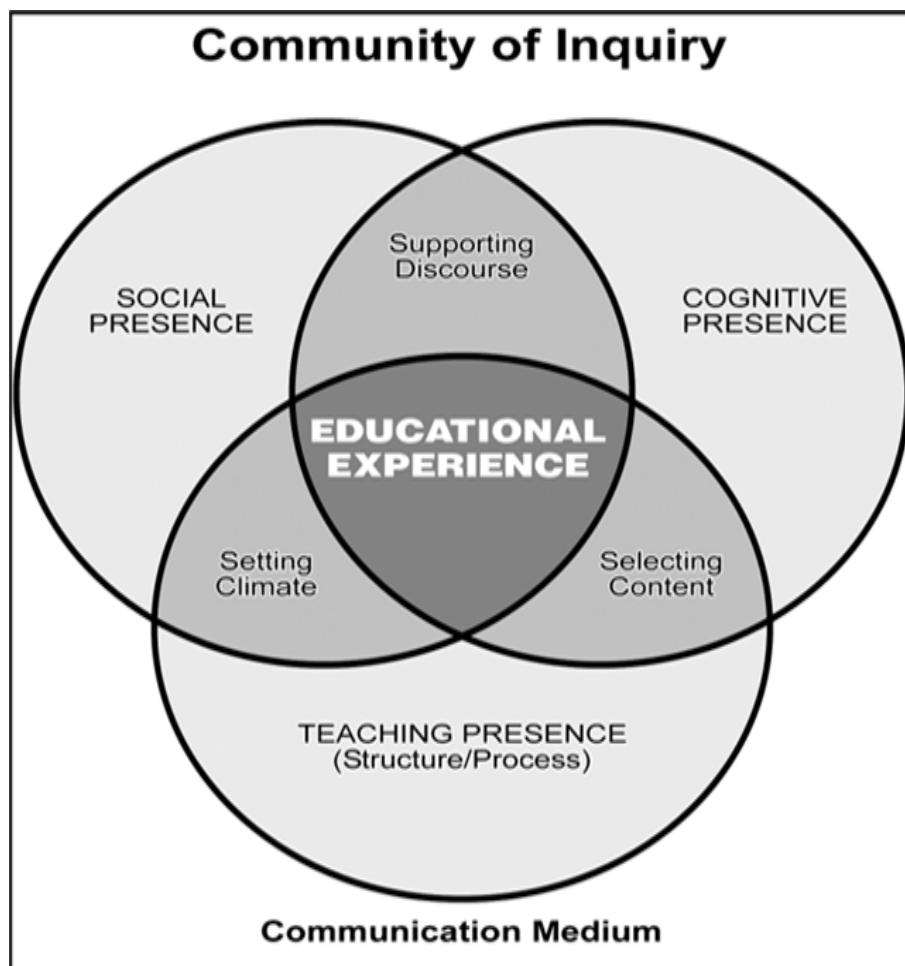
Issues

Most studies of online learning use are based on assumptions about hardware, software, and the availability of expertise. Under lockdown conditions in Vanuatu, these assumptions were more or less invalidated. Some of the candidates interviewed in this study shared ICT devices such as laptops with other members of their families, whereby the children use the laptop during the day and the parent, who is a teacher, uses the laptop in the evenings or vice-versa. Thus, even where hardware is present, it is not always available. Some teachers in Vanuatu do not even own a mobile phone and use those belonging to their family members upon request. They have to pay for data and develop credit to use the device. These individual difficulties are in addition to poor network coverage in rural and remote areas.

THEORETICAL FRAMEWORK

This study is grounded in the concept of Community of Inquiry (COI). COI is based on the early works of Dewey and Vygotsky (Garrison et al., 2000) on constructivism. In general, COI benefits from the nature of the constructivist theory of learning as participants actively engage in discourse about a particular subject. Figure 1 illustrates COI

Figure 1: Community of Inquiry



Adapted from Garrison, D.R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87-105, 88.

Figure 1 shows the process of making learning more meaningful through the presence of three interdependent factors: social, cognitive and teaching. Social Presence refers to participants being together in a learning environment. The primary importance of this element is its function as a support for Cognitive Presence, indirectly facilitating the social process of critical thinking carried on by the community of learners. According to Garrison et al. (2001), cognitive Presence ‘is the extent to which learners can construct and confirm meaning through sustained reflection and discourse and also focuses on higher-order thinking processes’ (p. 8). For example, as learners go through an online course outline and identify the expected outcomes by the end of the course, they understand what they are expected to do for assessment and how to apply the acquired knowledge and skills from the course content in their contexts.

Teaching Presence is the design, facilitation and direction of cognitive and social processes to realise personally meaningful and educationally worthwhile learning outcomes (Anderson et al., 2001). This aspect works by outlining how an institution makes decisions on the structure of its online delivery and program content.

Our learning experiences influenced the choice of the theoretical framework for this study. It deals with the type of learning where we are actively engaged by talking and asking questions of colleagues. Our learning embodies social-constructivist theory when discussions lead to new ideas and understanding. The COI framework also provided a flexible approach to deciding what research methodology to use.

METHODOLOGY

To restate, the study asked: What are the opportunities for studying through online teaching and learning in the context of primary teachers studying at VITE?

The qualitative tool used for the study was one-to-one interviews managed through a set of open-ended questions. The questions centred on the types of social and cognitive challenges related to online learning for in-service primary teachers in Vanuatu. The interview approach provided an opportunity to collect considerable information and explore people’s responses to situations they experienced. The general approach adopted to the topic supported an investigation of the opportunities encountered by Vanuatu in-service primary school teachers when studying online.

The interviews conducted by the researcher allowed insights into each candidate’s subjective experiences, opinions, and motivations – as opposed to facts or behaviours. The dialogic situation provided opportunities for the interviewer to make sense of the interviewees’ opinions expressed through gestures and facial expressions. In some instances, when using open-ended questions, there was no need to ask any further prepared questions as responses to the areas of researcher interest were given without further prompting.

Sixty teachers participated in the study. They had been teaching from 20 to almost 30 years in primary schools in Vanuatu. Their ages ranged from late 30s to almost 60 years old. There were more females than males and more English-speaking than French-speaking participants. The research was conducted over six to ten months due to travel restrictions because of lockdowns during the COVID-19 pandemic. In poor weather conditions, flights to the outer islands were cancelled, and, at one stage, the researcher was stranded for several days due to flight cancellations. Such is the Vanuatu context.

Candidates' experiences in online learning ranged from two semesters to three years in synchronous and asynchronous sessions. The most common online interaction was the candidates' participation in weekly scheduled synchronous sessions through Zoom meetings with VITE course instructors and a weekly Moodle learning platform with such activities as readings, videos and forum discussions along with assessment tasks. Forty per cent of the candidates taught and resided in rural, remote areas and had to travel to main business centres to access the network once or twice a week after classes or over the weekend.

The research was carried out with the approval of the USP Research Office and the Office of the Director of Vanuatu Education Services. The interviews were conducted in Bislama, the researcher's and the participants' first language. Interviews were mostly between 7 and 15 minutes, with the longest lasting 21 minutes. Each interview was audio-recorded and then transcribed into English, with member-checking taking place. Each interviewee was given a code name during the analysis phase for confidentiality purposes. Thematic analysis (Braun & Clarke, 2014) was conducted through a line-by-line reading of the transcripts. Then, each developing theme was tested, and new themes were added as the study progressively focused more on the range of responses rather than the frequency of expressions regarding opportunities for online learning. Thus, the study's aims were achieved by qualitative rather than quantitative means.

FINDINGS

This section presents three themes from participants' responses to the interview questions. These thematic clusters relate to ideas about prior knowledge, the benefits of online learning, and suggestions to improve the online learning experience.

Previous experience

A question about previous experiences or prior knowledge in online learning revealed some insightful perspectives:

Ben: It is my first time doing an online course and taught and helped me a lot with ICT skills which improved.

Kensinet: First-time experience helps me in my research and try hard to understand what online is about.

Odessa: I enjoyed it and learned a lot of things through the online experience.

These responses demonstrated the high level of enthusiasm that participants have for online work and the positive impacts online engagement has on their learning despite this being their first time involved in the change in the mode of learning from face-to-face to virtual. It seems that the VITE students were ready and willing to be challenged—a good quality for a prospective teacher.

A further response adds nuance to the theme:

Helen: Online learning is good for people our age to learn through it. It broadens my mind on how to research by myself and assignments and teaching as well. I extract a lot of knowledge from the content that I am studying online instead of someone telling me.

This indicates gratitude from a mature learner who may have assumed that further studies are more for the younger generation. Online learning provided a perfect opportunity for her to

resume studying as an adult while also working. It seems she gained confidence as a learner, independently ‘extracting’ relevant content as opposed to being given it face-to-face. The development of confidence was shared by others:

Hilda: I learn to study by myself. I create an atmosphere of a self-learning space which in my life I have never done. I create a goal to focus more on my study which I have never done before. It eliminates and lowers a lot of distractions in my life.

Lorry: I experienced that I have more time to work on my study at a speed which I, the learner think is correct or suitable to suit my learning pace. Also, it allows me to do more research and compare to direct conduct with the teacher who may not allow me enough time.

These extracts indicate the pleasure of independent learners taking ownership of their studies through online learning, enhanced by the flexibility to attend to their studies at their own pace and time. Thus, although COVID may have disrupted life, and despite the difficulties of Vanuatu’s context regarding availability of online facilities, VITT students gained from their first opportunities for online learning.

Benefits of online learning

When discussing the benefits of online learning, there was a variety of responses. One benefit is the opportunity to tailor the learning context.

David: I have plenty of benefits. One is that I feel safe when I am alone and also I am comfortable. There is no pressure from the teachers or lecturers. I do not see other learners to observe whether they are doing better than me so I may feel discouraged.

Privacy is valued by David, since it protects him from comparing himself to others and the negative consequences of this. He enjoys avoiding social pressure by engaging with online materials in safety.

David also raised the practical benefit of cost-effectiveness. Although computers and other hardware are expensive, in his experience these costs are not carried by the students. Instead, online learning is cost-effective. He says:

David: The other one is it is way cheaper; I don’t have to travel overseas or get from home to campus or class as well no bus fare to go and return every day. I can access everything from home. This is another way of how it benefits me in terms of saving up.

For those students on a limited budget and with financial responsibilities, this advantage is significant.

Joyanne points to the benefit of the responsibility for her online studies resting with herself.

Joyanne: I learn something every day. For example, in face-to-face when the teacher is absent then I do not learn anything that day . . . whether the teacher is present or not the content and task are there with instructions as to how to carry out my task online so the student does not miss out on learning. . . The courses can be accessed anytime, anywhere and tutors can follow students’ progress quickly and whether they have submitted their work on Moodle as they are recorded in drop-box so students cannot lie and make up excuses that they submitted their assignment but went missing because the Moodle system will show time and date which work are submitted.

Joyanne’s narrative pinpoints the value of content and instructions in online learning, independent learning, accessibility and consistency in monitoring assignment submissions

Shifting from face-to-face to online teaching and learning: Growth opportunities experienced by Vanuatu primary school teachers

without bias. Establishing a level playing field and placing responsibility in the hands of the student through technology is helpful to keen learners like Joyanne.

Carlos described social advantages that, to some extent, contrast with the privacy valued by others.

Carlos: Another benefit is that online learning is a global learning platform, I can interact with anyone from another place. A good example is I can post in students' forum discussions which I am doing right now, to communicate with students from other campuses doing the same course as me in the comfort of my home, also we get to share our thoughts and ideas on common topics.

Rantes spoke of both advantages: sociality and privacy:

Rantes: Online learning brings diversity. It widens your learning space, classroom, or your environment in the sense that you are not surrounded by walls, you have a wide diversity of people to interact with. Online learning does not look at the age group, compared to face-to-face settings sometimes you walk into a classroom and see a lot of younger students and you hold back as you feel uncomfortable . . . Also, you can have a one-to-one interaction with the tutor [without] [t] the fear of being judged, criticised, or laughed at. Besides your tutor who is a human like you . . . you have a virtual library and everything all in one place.

It is clear from these comments that the elements of the COI; Teaching Presence, Social Presence and Cognitive Presence, are configured differently by the learners, according to their circumstances. However, all the comments display the students finding their own benefits in the way teaching, social situations and learning opportunities are viewed.

Some student found benefits from online learning beyond their perspectives. As an example:

Zedalina: Helps me to manage my time at home, how to manage my time at school, and my time in the online courses that I am doing. When I am studying at home it helps my kids to copy the studying model that I am doing, and they get closer to me to attend to their studies from primary to secondary and boost their morals to be interested in what they are learning in schools and try harder. For the older ones, it helps them to attend to their assignments on time.

An important aspect raised here is role modelling to family members to learn from how their parents attend to online learning from home through time management, independent learning, eagerness and determination to get learning tasks done on time.

Finally, participants discussed the advantages related to supporting their time management:

Floyd: Another one is that the topic or contents are in Moodle which I can access anytime, I just need to click on which topic to learn from or which assignment I need to attend to when the due date is approaching and also to get instructions as to what to do next.

Nerry: Course material comes in soft copies, so I do not have to print to carry them around. It is interesting because it is available anytime and makes work easier to handle so that I can teach and attend to study at the same time. You type and submit at the same time. All the support you need is at your fingertips such as Google for research, browsers as libraries, and many more.

Floyd and Nerry noted the advantages of online or 'soft' material and the way these impact time management skills since materials, assessments and timetabling are all linked in online.

In general, the narratives in this theme speak volumes about the benefits of online learning shared by the participants, such as promoting independent learning and access to learning content anytime and anywhere. In addition, there was often a balanced comparison between online learning and the disadvantage of face-to-face learning.

Improving online learning

To capture the participants' thoughts on how to improve online learning, the question was asked: In your view, what is the best way forward? The interaction between the participants and the researcher opened the opportunity for the participants to express themselves. The excerpts that follow capture some of their thoughts.

Rantes: Adopt a blended mode of delivery between online and face-to-face to start with what mode of learning the students are familiar with and induction of what mode of learning the students should apart to from a distance through virtual delivery.

Alice: Suggest that there be some face-to-face time or intensive session to explain the content to us out here on the island.

Asneth: Need intensive workshops to help assist us with our better understanding of the content to do well in the study program.

These candidates requested some face-to-face sessions or a blended mode of delivery to suit the learners' needs.

Cindy: If the institution could run an effective ICT workshop at the beginning of the study and enlighten us on how to go about studying online without the presence of a tutor, it would help a lot.

Dionie: It is more proper for the institution to run ICT skills workshops at the beginning before the main course commence. So that students do not take up too much time to learn the required ICT skills but go straight to courses online.

Cindy and Dionie voiced concerns about the need for ICT training before commencing fully online delivery.

Ginette: Readings must be carefully selected, ensuring that only essential or relevant materials are uploaded for learners to read on the given topic.

Dunstan: Institutions should train learners to be selective in content engagement. For instance, for in-service teachers, content—especially readings—should be summarised and concise, focusing on what is immediately applicable and necessary for their professional development.

David: Readings must be selective. This focused approach helps avoid overwhelming students and ensures they engage with key content.

Ginette, Dunstan, and David highlighted content selection about learners' prior knowledge and experiences.

Floyd: Best if tutors or online learning personnel would create a space for those like me if we do not understand or need help, we could raise our queries there instead of asking the questions in front of everyone as many of us are shy. When the tutor sees the question, they can respond, or other students can also contribute to it.

Floyd spoke about creating a 'virtual query space' for students to ask their personal questions, and to be themselves without fear of being exposed or ridiculed by other learners.

Shifting from face-to-face to online teaching and learning: Growth opportunities experienced by Vanuatu primary school teachers

Qwenie: Needs monitoring of students' online progress by tutors and communicating very clearly when to open and close forums etc. Make time to meet students once a week or month with a meeting log between them. Check students' levels of prior learning before enrolling them in a course through a checklist of what they know already and what is new that they need to know and provide extra support for the students who need it the most for example year 10 leavers etc. Tutors need to cooperate well with students and get to know them and how they learn to assist them effectively.

Hilda: Give timely and effective feedback on assignments to students to reassure them that they are doing the right thing, so it motivates us to keep up with our studies.

Norris: Tutors need to respond to students' queries on time to motivate them to keep their interest in their studies to continue.

Qwenie, Flora, Norris and Hilda pointed out that trainers' roles in monitoring, diagnosing learners' prior knowledge, and providing feedback are important in online learning.

Wilma: a course diagnostic assessment should be done to find out where the students are at in their knowledge of the content before starting the course so that each student is provided with the right content, they need to complete a course or a full content to complete a course.

Seth: If we want to move online forward, we need to start an online learning curriculum from ECCE upwards, so they move into primary and secondary with ICT literate skills and all.

Carlos: I take ownership of learning through the improvement of time management skills, timetabling, and attending to tasks with a positive mindset.

Obed: Instead of providing so many soft readings, just provide a textbook or handbook containing all. So that you just must pick it up and read it anytime. Probably if the online courses are 50% online and 50% face-to-face then it will be more effective for the learners. Good for institutions to have a sub-center in the provinces for the students to have access to a learning space with ICT devices and a supervisor to assist students with their studies online on the ground.

Obed suggested that hard and soft copies of learning materials be made available and that learning centres are established in the provinces to provide student study spaces.

All in all, the excerpts regarding suggestions for improvement were inspired by the opportunities the participants had experienced. They offered suggestions for future consideration, and more importantly, as learners, they hoped to implement the recommendations to enhance their online learning approaches.

DISCUSSION

Addressing the research questions

The research question 'What are the opportunities for studying through online teaching and learning?' is addressed above under Theme 1 – *Prior Knowledge* and Theme 2 – *Benefits of online learning*. Participants Ben, Kensinet, Odessa, Helen, Hilda and Lorry provided insights demonstrating their prior knowledge of online learning. One or two excerpts from the interviews revealed the positive nature of participants' first-time experiences (e.g., Ben and Kensinet). Other excerpts under the first theme showed that the participants had more experience in online learning. Most participants may have had opportunities to attend workshops or training in online learning before this study.

Data excerpts that address Theme 1 show the social aspect of the study. Some participants are new (may not be confident), whereas others had more experience (may show signs of being very confident). Theme 1 highlights participants' enthusiasm as they reflected on how their ICT literacy improved through engagement with online learning. Furthermore, candidates noted that their prior knowledge was both revived and enhanced by using various online interactive apps and platforms. This allowed them to bridge the gap between their existing knowledge and the new skills, experiences, and knowledge required for effective online learning.

Excerpts from participants David, Joyanne, Carlos, Rantes, Zedaline, Floyed and Nerry presented under Theme 2 show the participant's appreciation of the usefulness and benefits of online learning. For example, David pointed out benefits including *self-pace*, *cost-effectiveness* and *safety*. Rantes and Carlos pointed out the benefits of experiencing *no age difference* in classes and the possibility of online *one-to-one learning*. In Theme 2, other beneficial factors of online learning emerged, which included prompting of independent learners and accessibility of content. Participants were aware of how online learning works to their advantage particularly at their age and engagement in employment while studying as well.

Aligning the findings with the literature

The study findings appear to align with the reviewed literature. For instance, the participants revealed that independent learning, accessibility and flexibility are benefits of online learning. Joshua et al. (2016) reported that online learning helps learners to rely more on themselves so that the instructors are no longer the only source of knowledge but serve as guides and advisors. In addition, Radu et al.(2015) pointed out the benefits for part-time students, travellers or relocators to attend to studies from anywhere at any time. As to the maintenance of content standards, one participant noted that she liked online learning because the content or learning material is 'not erased from the board' when compared to some face-to-face teaching and learning strategies. This point is supported by Zhang et al. (2006), who claim that learning apps such as interactive video permits learners to watch all activities conducted in the classroom and listen to instructors as many times as needed.

Because of adult learners' maturity, they are expected to be all-rounders who can handle their studies as they go about managing their everyday responsibilities. With the increasing presence of adult learners in higher education, educators should strategise to improve the conduct of distance learning experiences that can fit into the reality of adult learners' extraordinary circumstances (Bok, 2021). Successful learning for adults in distance education depends not on course content, design or delivery alone but on understanding adult learners as persons with busy, valuable lives (Bok, 2021). These literature-based statements describe the lives of Ni-Vanuatu study participants. The alignment of literature and the Ni-Vanuatu experiences suggests that some matters are common to online learners everywhere despite contextual issues of geography, network quality and access.

CONCLUSION

This study showed that Information, Communication and Technology, including online learning, offer considerable benefits. According to Naseer and Zahida-Perveen (2023), online learning environments foster additional learning experiences where learners can interact, collaborate and take ownership of their own learning. Similar benefits of online learning have been revealed in this study. Study participants were able to take steps to improve their own abilities to deal with online learning and teaching issues. Participants seized opportunities for safety and ownership of learning and acted further in support of their own learning.

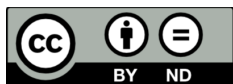
This study has also uncovered challenges in online learning. To address the challenges, particularly of timely access, VITE as an institution needs to develop flexible distance and virtual learning policies and procedures. This might mean incorporating online teaching and learning while building sub-centres in rural and remote areas where learners can access learning resources more easily. As part of the VITE program entry requirements, learners might be required to own appropriate hardware or have easy access to ICT devices—for instance, a computer lab and reliable network coverage- as prerequisites for enrolling in online programs or courses. This might, however, have an exclusionary effect. An additional recommendation is that a practical delivery plan with monitoring of learning progress and learner participation is developed and implemented, including attention to a blended mode of delivery to suit Vanuatu's context and cultures of learning. Similarly, MOET should review its online policies to incorporate children and adult learning platforms and opportunities, learning from the experiences of online learners such as those in this study.

Finally, this research shows the range of opportunities adult learners in Vanuatu have encountered in online learning despite the issues involved. Both benefits and recommendations for improving online learning are ripe for further investigation using other research methods and in other Vanuatu contexts. Online learning has great potential, and research has a part to play in maximising learning benefits.

REFERENCES

- Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Assessing teaching presence in a computer conferencing context. *JALN*, 5(2), 1-17.
- Bok, G. I. (2021). Adult learners' challenges in distance learning: A case study in Universiti Sains Malaysia. *Issues in Educational Research*, 31(1), 2021.
- Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*. <https://doi.org/10.1186/s42466-020-00059-z>
- Braun, V., & Clarke, V. (2014). Thematic analysis. In A. C. Michalos (Ed.), *Encyclopaedia of quality of life and well-being research* (pp. 6626-6628). Springer.
- Daniel, E. (2016) The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum. *Journal of Education and Practice*, 7, 91–100.
- Elaish, M. M., Shuib, L., Ghani, N. A., & Yadegaridehkordi, E. (2019). Mobile English language learning (MELL): A literature review. *Educational Review*, 71(2), 257–276. <https://www.tandfonline.com/doi/abs/10.1080/00131911.2017.1382445>
- Garrison, D.R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87-105.
- Garrison, D. R., Anderson, T., & Archer, W. (2001) Critical thinking, cognitive presence, and computer conferencing in distance education, *American Journal of Distance Education*, 15(1), 7–23. <https://doi.org/10.1080/08923640109527071>.
- Gautam, S. S., & Tiwari, M. K. (2016). Components and benefits of E-learning system. *International Research Journal of Computer Science (IRJCS)*, 3(1), 14–17.

- Huang, L., Wang, W., Chen, J., & Wei, X. Y. (2019). Attention on attention for image captioning. In *Proceedings of the IEEE/CVF international conference on computer vision* (pp. 4634-4643). https://openaccess.thecvf.com/content_ICCV_2019/html/H
- Joshua, J.W., Swastika, I & Estiyanti, Ni. (2016). The effectiveness of e-learning implementation using social learning network schoology on motivation & learning achievement. *Journal Nasional Pendidikan Teknik Informatika (JANAPATI)*. 5(28). <https://doi.org/10.23887/janapati.v5i1.9914>.
- Martínez-Caro, E., Cegarra-Navarro, J. G., and Cepeda-Carrión, G. (2015). An application of the performance-evaluation model for e-learning quality in higher education. *Total Quality Management and Business Excellence*, 26(5-6), 632–647.
- Ministry of Education and Training. (2019). *2019 Annual Report. Port Vila: Policy and Planning Division*. Government of Vanuatu.
- Naseer, S., & Zahida Perveen, H. (2023). Perspective chapter: Advantages and disadvantages of online learning courses. *IntechOpen*. <https://doi.org/10.5772/intechopen.1001343>
- Radu, F., Radu, V., & Croitoru, G., (2015) The advantage of the new technologies in learning. In *10th international conference on artificial intelligence, knowledge engineering and data bases* (pp. 150–155).
- Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & education*, 144, 103701.
- Usher, M., & Barak, M. (2020). Team diversity as a predictor of innovation in team projects of face-to-face and online learners. *Computers & Education*, 144, 103702.
- Zhang, D., Zhou, L., & Briggs, R., & Nunamaker, J. (2006). Instructional video in e-learning: Assessing the impact of interactive video on learning effectiveness. *Information & Management*, 43, 15–7. <https://doi.org/10.1016/j.im.2005.01.004>.



This work is licensed under the Creative Commons Attribution-NonDerivatives 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nd/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

Authors and readers are free to copy, display and distribute this article with no changes, as long as the work is attributed to the author(s) and the International Education Journal: Comparative Perspectives (IEJ: CP), and the same license applies. More details of this Creative Commons license are available at. The IEJ: CP is published by the Oceania Comparative and International Education Society (formerly ANZCIES) and Sydney Open Access Journals at the University of Sydney. Articles are indexed in ERIC, Scimago Journal (SJR)Ranking / SCOPUS. The IEJ:CP is a member of the Free Journal Network: Join the IEJ: CP and OCIES Facebook community at Oceania Comparative and International Education Society, and Twitter: @OceaniaCIES