

## **Open Distance and Flexible Learning for Resilience in Higher Education - Tonga National University as a case study**

Amidst pandemic, tsunamis and volcano, and unsustainable economic dependence on donors and remittances, Tonga continues to grapple with the resilience of its education systems. Open Distance and Flexible Learning (ODFL) has emerged as a lifeline for ensuring educational continuity. Our paper explores how ODFL enhances resilience in the higher education sector using Tonga National University as a case study. It explores stakeholders' perceptions, current ODFL initiatives and practices, challenges and opportunities for strengthening its educational systems and processes. It employs a mixed-methods approach comprising survey and desktop documentary analysis and/or institutional data analysis as well as authors' reflection from two workshops. Coupled with the demographic, focus areas include 'perception of ODFL, 'institutional readiness and support', 'technology and infrastructure' and 'future perspectives. The paper will present best practices and evaluate the role of ODFL highlighting context-appropriate practices and strategies for education actors in Tonga to enhance education system resilience. It will contribute to the broader discourse as well as inform educators, institutions, policy makers, donors and commonwealth governments on adaptive learning models in the region.

**Keywords:** Open Distance and Flexible Learning, Education system Resilience, Higher Education, Technology enhanced Learning

### INTRODUCTION

Educational resilience refers to the ability of education system to cope with continuity of its educational delivery despite adverse situations (Borazon & Chuang, 2023; UNESCO, 2024). The uniquely diverse geographical, economic and socio-cultural factors that shape learning environments in Pacific Island Countries (PICs) ought to be considered to understand the scope of resilience. The dispersed population and limited economies of scale necessitate improvising context appropriate solutions to ensure quality educational delivery remains accessible. Tonga exemplifies unique vulnerabilities faced by Pacific Island Countries (PIC). As an archipelago of 171 islands with a total surface area of 750 sq. km (290 sq. miles) spread over 700,000 sq. km in the South Pacific Ocean, the nation faces immense challenges in educational delivery to its dispersed population; total population stands at 100,179 as per census recorded on 30<sup>th</sup> Nov 2021 (Tonga Statistics Department). Amidst myriads of unique challenges in recent years posed by the Covid19 pandemic, volcanic eruption of Hunga Tonga-Hunga Ha'apai as well as two tropical cyclones (Tropical Cyclone Gita in 2018 and Harold in 2020) coupled with economic dependance on donors and remittances and limited information communication technology (ICT) infrastructure, Tonga grapples with resilience of its education system. Open Distance and Flexible Learning (ODFL) presents a plausible solution to ensure continuity as well as resilience within the education system (COL, nd1, UNESCO, 2024).

Tonga National University (TNU) was established in 2023 based on recommendation as stipulated in TNU Act 2021 informed by a scoping study (Ministry of Education and Training, 2020). TNU is a full-fledged university comprising four faculties: Faculty of Education, Arts and Humanities (FEAH), Faculty of Science and Technology (FST), Faculty of Nursing and Health Science (FNHS) and Faculty of Business and Public Administration (FBPA). Currently, only FEAH offers degree programs, the rest offer certificate and diploma level programs targeting the needs of Tongans. Aligned with TNU's commitment to establish an educational system that is accessible, inclusive, relevant and innovative, quality, resilient and sustainable for Tonga, ODFL can enhance resilience of higher education system and more importantly reach the unreached in the remotest islands. As TNU continues its efforts with ODFL, it is looking into lessons learnt and best practices from universities within the region such as Solomon Islands National University (SINU) and University of the South Pacific (USP). USP serves as a good example given its history as a distance education provider as well as the presence of one of its bigger campuses in Nuku'alofa, Tonga. This paper examines TNU's journey of embracing ODFL.

### BACKGROUND AND CONTEXT

The distance and flexible education have a long history in PICs mainly to enhance access to quality education to remotest islands. Since its inception in 1968 as a brick-and-mortar university, the USP has demonstrated relevance

of embracing context appropriate solutions in educational delivery with time that eventually helped enhance its system resilience. Adding print-based DE in 1970s and radio broadcasting services that were soon replaced with satellite studio tutorials, USP embraced digital technologies while developing its ICT infrastructure incrementally (Author). Beginning with the Pan-Pacific Education and Communication Experiments (PEACESAT) in 1971 and transitioning to USP Network (USPNet) that eventually established its own commercial satellite network, USP has indeed come a long way (Hayakawa et al, 2023). These developments afforded USP greater educational resilience and by 2005, it started looking at blended educational delivery and now USP is a thriving multi-modal education provider. It is, therefore, not surprising that USP was ranked 11th and 12th in 2021 and 2022 respectively for Crisis Management by the World's Universities with Real Impact (WURI, nd) during the pandemic period. Whereas, in a 13-countries study on learning continuity during Covid19, Author (xxx) identified challenge from 'missing infrastructure and experience of distance education' at a macro level. USP's educational resilience continues to serve as a role model for universities around the world and more importantly emerging universities in the region such as TNU.

Tonga has had some experience with ODFL in its school system during the pandemic and natural disaster period. UNESCO (2024) reports technology has expanded learning opportunities in Tonga and open and distance learning strengthen educational resilience. Funded by Global Partnership for Education (GPE) and supported by Ministry of Education and Training (MET), the 'Tonga Safe and Resilient School Project' (2021-2027) is currently underway which aims to enhance safety and resilience of selected education facilities, quality of education programs and an emergency response plan (World Bank, 2022 a, b). For this project, development partners such as Inclusive Education, Kaltura, Save the Children Australia and UNICEF are providing technical assistance to MET. Thus, viability of multimodal and flexible teaching approaches using print, radio, television and online delivery were trialed in 2020 during two school closure days under the 'National level education resilience project' (Steen et al, 2022). Curriculum design, development and delivery using appropriate technology coupled with teacher training for multimodal approaches provide valuable insights into educational adaptation strategies in this project. Steen et al establish this multimodal education intervention as reasonably successful given that it afforded learning continuity and students enjoyed learning at home during the crisis period.

Similarly, four faculties of TNU, previously independent colleges, have made progress in moving from typically traditional educational delivery modes to embracing ODFL in the design, development and delivery of courses to varying extents and TNU currently employs Moodle as its learning management system; development of degree level program is also underway in some faculties (authors observation). The assistance from donors and development partners remains critical in ODFL efforts. For example, the Pacific Partnership for Open Distance and Flexible Learning (PACFOLD), funded by the New Zealand Ministry of Foreign Affairs and Trade (MFAT) and supported by COL and USP continues to provide ODFL capacity development for building educational resilience across PICs (COL, 2021, 2024a, b). The recent COL supported activity enabled TNU achieve a major milestone in its ODFL journey as stakeholders worked towards the development of TNU's ODFL policy (COL, 2025).

Technology remains an important player in ODFL. The internet access increased from 3% (2003) to 71% (2021) in Tonga partly enhancing infrastructure but digital skills still remain one of the many issues (UNESCO, 2024). The UNESCO report highlights that the adoption of technology for ODFL in the PICs requires an understanding of full spectrum of issues in each country owing to their unique contexts and capacities. Therefore, the current status and developments for ODFL at TNU and its implications is the focus of this case study.

## METHODOLOGY

It utilizes a mixed-methods case study approach from multiple data sources to capture quantitative indicators of ODFL status and efforts and qualitative insights into stakeholders' perception and experience within TNU's context. TNU is chosen for this case study primarily to examine the efforts being made by TNU and its development partners and donors for enhancing resilience through ODFL. The case study approach affords an in-depth examination of factors that influence ODFL in a small island nation. A survey, desktop documentary analysis as well as the participants' feedback and authors' reflection from the two workshops provide the data for this paper.

## FINDINGS AND DISCUSSION

### *Documentary analysis and discussion*

An analysis of documents such as scoping study (MET 2020), TNUAct (2021), TNU Strategic Plan (SP) 2024-2029, TSDF II and articles on National Development Summit 2025 for TSDF III and internet sites such as TNU website and Facebook page provides a better understanding of TNU's desire to implement ODFL. The compelling argument in the scoping study for Tonga to have its own University and develop a proposal, TNUAct (2021) aligned with TSDF II provides TNU's historical context. TSDF II 2015-2025 commits to lifelong learning through continuous development of skills. The first workshop opening remarks by the founding Vice Chancellor Dr. Giulio Masasso Tu'ikolongahau Pāunga aligned with TNU mission and vision (TNU SP 2024-2029), reflect the university administration's commitment to overcome the existing barriers and increasing access to education across Tonga through ODFL at TNU:

*This event, is a key step in our journey to provide quality education for all, aligning with our vision to be a tributary of providence for every generation; and our goals, to advance learning for sustainable development. It is all about ensuring our students get the chance to maximize their learning opportunities and to promote the TNU motto, Truth, Justice and Freedom.*

The VC's presence and support throughout the two-workshop inspired his staff as he encouraged them to participate and contribute to their best of the abilities. At the time of writing this paper, the TNU website appears to be under construction, but an active TNU Facebook page appears to provide regular updates, for example appointment of its founding vice chancellor was also done via TNU Facebook page (Press Release, 2025). A series of events in Tonga have benefitted from the involvement of TNU and its staff. The National Development Summit was held from 18<sup>th</sup> - 21<sup>st</sup> March 2025 with an aim to "achieve resilience in all dimensions of sustainable development" (PM Press, 2025). An active engagement of TNU staff including its Dean and COL focal point participated and contributed towards the development of the Tonga National Development Framework (TSDF) III for the period 2026-2036 on its mission to "help deliver a more people-centered improvement to the well-being of its people".

On the TNU website and its Facebook page, a flyer provides information on ways to access their online courses using its eLearning portal<sup>i</sup> (Facebook post, 17<sup>th</sup> March, 2025). TNU uses Moodle as its learning management system (LMS). It is not clear if these online courses include hosting the content or also delivering of the course partly/wholly via Moodle. No information could be found on modes of delivery on the website. Another pathway to accessing<sup>ii</sup> the university LMS is through the home page on TNU website under the 'university resources' tab which provides 'Learning' as one of the six options. A number of courses appear under each school in four faculties and a stand-alone course on 'Child Protection and Safeguarding'. There is a block for the TNU lecturers Resource<sup>iii</sup> under which there is a course 'Tonga National University Teacher Resource'. The content of this course is not clear as it is inaccessible to guests, it is a site intended for TNU teaching staff.

A number of educational resources could be accessed via TNU 'library'<sup>iv</sup> under the 'university resource'. An assortment of resources can be found under the headings 'Open Access Books and Textbooks'<sup>v</sup>, 'Open Access Journal & Website'<sup>vi</sup> and 'OA Educational resources'<sup>vii</sup>. Under OA Journal & Website, a site of interest is 'Digital Pasifik'<sup>viii</sup>. It is likely that the library site is under construction as it keeps going offline from time to time. TNU is receiving assistance from other universities and organizations for assistance in various domains. As a result, EBSCO information services have been integrated within their eLibrary system (Facebook post, 19<sup>th</sup> March, 2025). there is collaboration with other universities from Australia, Japan, New Zealand and China for development of educational programs and other aspects of higher education services. However, details of development of educational programs could not be found. The desktop analysis indicates that various initiatives are in place that are useful in ODFL journey for TNU.

### *Survey*

A survey conducted in March 2025 provides some insights into ODFL initiatives and highlights disparity in understanding and experience with ODFL among the participants. It focused on 'perception of ODFL, 'institutional readiness and support', 'technology and infrastructure' and 'future perspectives' for ODFL at TNU. A link to the instrument comprising 16 questions was distributed to selected staff at TNU by one of the authors. Given the small sample size of this survey, the qualitative data from other sources afforded valuable insights. The analysis of survey required looking at individual survey responses for better understanding of respondent's positionality with respect to

a particular question. Responses were received from 16 individuals. The participants were from academic and professional backgrounds:

- a. 4 from FEAH, 4 from FBPA 3 from FST, 3 from FNHS were teaching staff with varying tertiary teaching experience.
- b. 1 professional staff from ICT and 1 administration office

Out of 16 participants, 13 reported having previously engaged in ODFL activities to varying extent. Elaborating on their experience with ODFL, two reported their participation in COL capacity building workshop and national policy development for open schooling in 2023 while one reported completion of ‘Understanding OER’ course by COL and proudly shared their certificate. Responses from other three highlighted superficial understanding as their responses were either vague or standard statement on usefulness of ODFL. This is affirmed by their perception response to TNU staffs’ familiarity with ODFL in the figure 1.

5. How familiar do you think TNU staff are with the concept of ODFL?  
16 responses

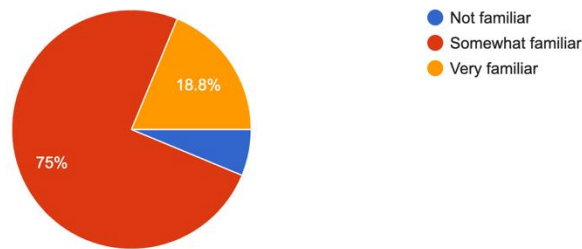


Figure 1. Perception on familiarity with ODFL

Their response to benefits (figure 2) and challenges (figure 3) further provides information on their ‘perceptions’ highlighting varying degree of understanding of various aspects of ODFL benefits.

6. What do you perceive as the main benefits of ODFL for TNU? (Select all that apply)  
16 responses

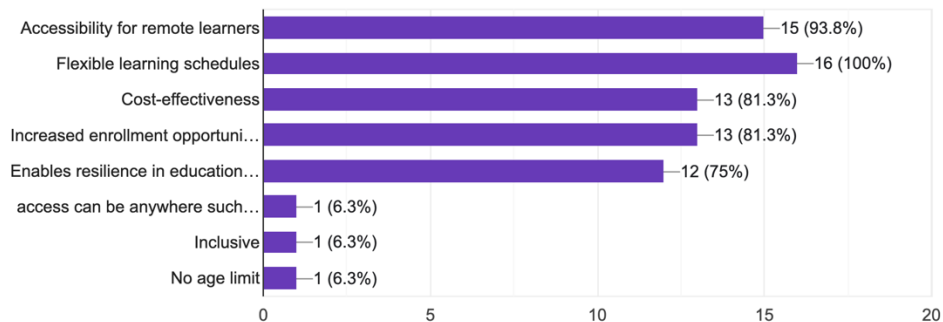


Figure 2. Perception on benefits of ODFL for TNU

7. What are the main challenges of ODFL in your experience or opinion for TNU? (Select all that apply)

15 responses

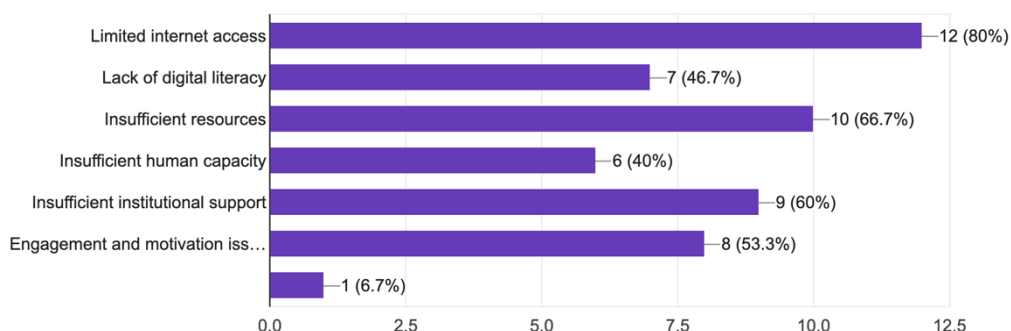


Figure 3. Perception on challenges of ODFL for TNU

On ‘institutional readiness and support’, the participants responses indicate while TNU has made a good start, more work needs to be done for implementing ODFL in TNU. On the issue of courses offered via ODFL, the response in figure 4 is well justified with their narratives discussed next.

8a. Does any department at TNU currently offer any ODFL courses?

16 responses

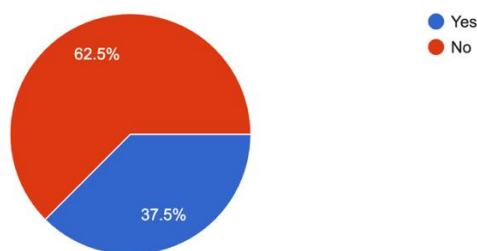


Figure 4. TNU course via ODFL

Three participants provided concrete responses as they elaborated on the presence of Moodle as the platform for content and delivery at TNU highlighting varying degree of its use in various courses; one of them reported that “majority of education courses are placed online, which is a component of ODFL”.

Support from COL in “developing and implementing ODFL initiatives” such as developing ODFL policy and an implementation plan, teacher training through its course was also pointed out which highlights the role COL can play in assisting TNU’s journey with ODFL. TNU’s commitment and efforts was also pointed out, “Additionally, TNU has been involved in training teachers to effectively deliver ODFL. In 2024, 159 teachers from Tonga were trained to offer effective learner support in ODFL contexts”. On the availability of resources, participants provided varying responses (figure 5), which could possibly be owing to their lack of awareness. All participants responded affirmatively to the question on need for additional resources or support with a couple of participants’ providing more comprehensive responses.

9. What resources are currently available for ODFL at TNU? (Select all that apply)

13 responses

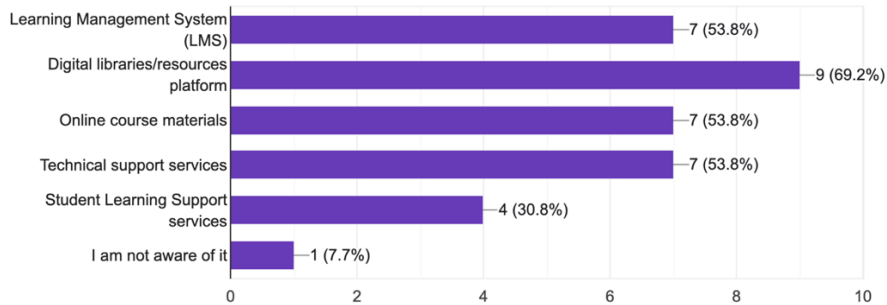


Figure 5. Resources for ODFL in TNU

On ‘technology and infrastructure’, the responses indicate the need for more work in the area of information communication and technologies and funding. A point on funding was made by administrators and professional staff in ICT section within the sample who clearly have an idea of existing deficiencies in TNU and need for assistance and collaboration from government and partners. The rating of current technological infrastructure for ODFL in figure 6 appears to be reasonable from a PIC viewpoint, certainly more work needs to be done.

11. How would you rate the university's technological infrastructure for ODFL?

15 responses

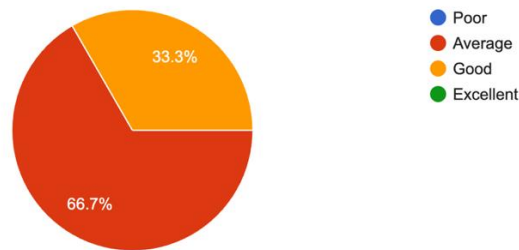


Figure 6. Technological infrastructure for ODFL in TNU

All participants reported access to a computer or laptop and their response to main barriers for ODFL in TNU are provided in figure 7.

12. What devices do staff at TNU commonly use for distance/online learning/teaching? (Select all that apply)

15 responses

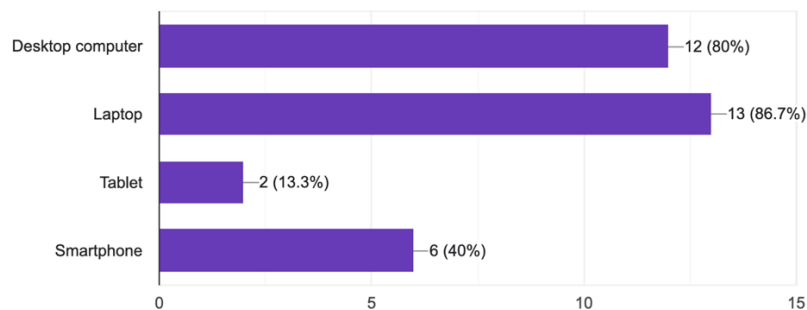


Figure 7. Main barriers for ODFL in TNU

The responses to ‘future perspective’ indicate more work needs to be done in the area of ODFL at TNU. All participants unanimously agreed on the need for capacity building programs in ODFL and figure 8 provides areas that majority considered useful for future trainings. Interestingly, none provided any additional area that they felt would be useful for them.

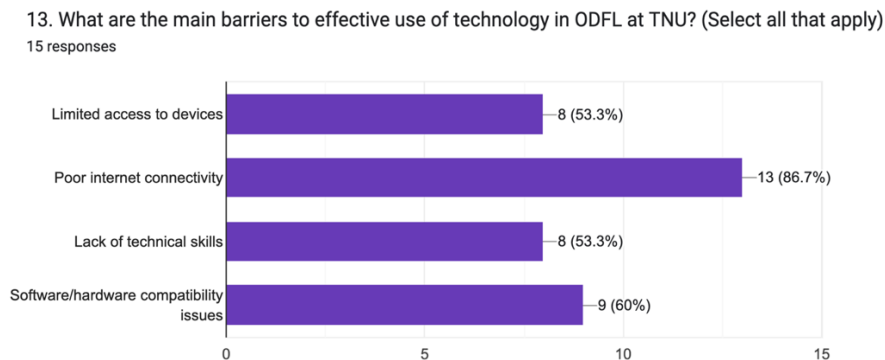


Figure 8. Future training areas for ODFL in TNU

Out of 16 participants, 15 provided suggestions for enhancing the adoption and effectiveness of ODFL at TNU in response to the final question in the survey. A point worth mentioning is that out of three participants who responded to this question, two survey respondents are currently enrolled in the tertiary teaching program and one has completed it. Prior training or current engagement indicates higher understanding as well as willingness to learn and improve further. The responses from one participant in particular was exceptionally comprehensive (See Response 4 in appendix 1 and 2), therefore the two workshops engaged this respondent as TNU champion in various discussions. There is a clear need for COL’s continuous engagement with TNU beyond this particular initiative.

### *The two workshops and reflections*

The two workshops were part of a project that focused on TNU staff’s ODFL capacity building and development of TNU ODFL policy and its validation. The pre and post surveys for these workshops provided participants feedback and authors’ reflection as well as workshop participants (TNU staff) discussion during the workshops provided further insights. The need for ‘awareness’ of various aspects of ODFL was deliberated on at length during the first workshop and the role of media was highlighted by the HOS of Media and Journalism. Lessons learnt from previous projects need to be taken into consideration for sustainability of ODFL. The ‘implementation of Aptus’ initiative by Commonwealth of Learning was considered as a strength for ODFL pointing out its ability to access information offline; offline servers were recommended for accessing learning materials for the continuity of education during emergency. Internet connectivity and access to a device remains an area of concern. Hence, emphasis on infrastructure, what type of internet provider<sup>ix</sup> and who controls it generated thought-provoking arguments. The issue of banning sites such as ‘YouTube’ by the current internet provision and their impact on learning and teaching led to the need for TNU owned network (TNUNet), similar to USP’s (USPNet). The session on best practices in Tonga provided some good examples of how TNU staff innovate during crisis (pandemic) period and delivered lectures and interacted via Facebook or use of a simple ePortfolio by staff for their professional development record. It also highlighted a lack of awareness of existing resources and expertise that is currently available within Tonga National University system and its staff. A very few participants were aware of resources available at the TNU library webpage including extensive links on open educational resources (OER). The need to establish a Centre for ODFL and various aspects starting from its structure to its roles and responsibilities were discussed at length. It was felt that this centre for ODFL would cater towards staff and student training and awareness of learning and teaching resources.

Two key takeaways from this workshop were: (i) finalizing the outline for ODFL policy and (ii) creation of a closed Facebook Group “ODFL Enthusiasts” created by one of the participants. Evident through the discussions and pre-and post-survey questionnaires, there was an increased understanding / knowledge of ODFL gained by all workshop attendees after the two days’ workshop. Out of 20 pre-workshop survey, majority revealed they had heard of the

term ODFL, however not everyone’s understanding was not at the same level and 12 had attended ODFL workshop prior to this one. All respondents in the post-workshop questionnaire responded with a “yes” to the question on if they feel they gained knowledge or enhanced understanding of ODFL after attending this workshop.

The question on challenges identified all areas indicated in the post-survey by an overwhelming majority (Figure 9). The “financial resources” is unanimously perceived as a challenge in implementing ODFL at TNU. These challenges among addition challenges were also discussed during the course of two days. Following additional challenges were provided by two respondents:

- Technical skills and training for students
- Awareness programs for parents and guardians
- Reliable internet service provider
- Government red tapes on IT/ICT accessibility for TNU as an entity of government

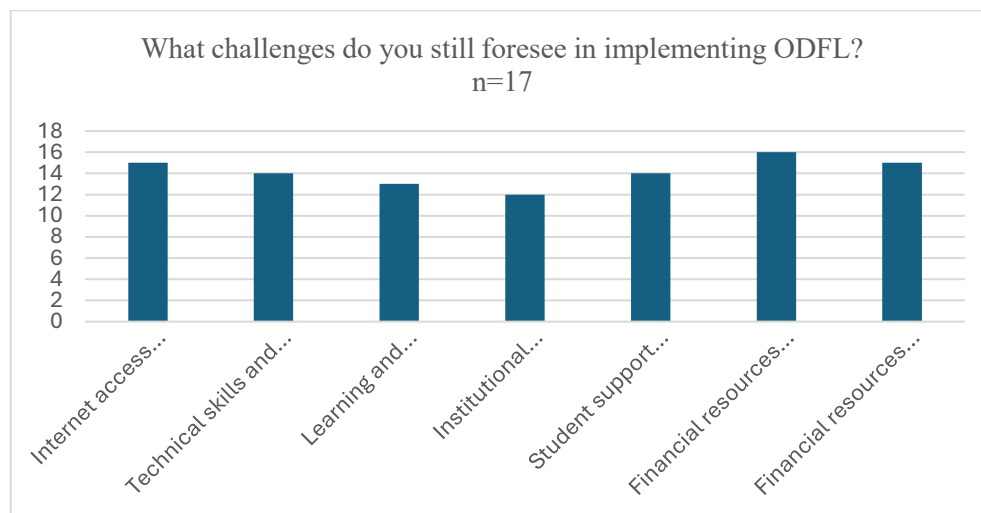


Figure 9: Foresee Challenges in implementing ODFL at TNU

Some major areas identified for the future workshops are as follows:

- ODFL tools and its integration in courses
- Moodle development and support
- Assessment strategies in ODFL
- Learning and teaching with disabilities
- Technical training for staff
- Localized educational resources
- Designing and developing ODFL courses
- Implementation of ODFL
- ODFL framework and policy implementation
- Micro credential framework and policy

As part of suggestions and further comments, one respondent’s comment on AI indicate their readiness to accept disruption/presence of AI in education, “Embrace AI usage into teaching and learning and adapt assessment to accommodate it”. The discussions helped identify priority areas for the TNU ODFL policy. The participants appreciated efforts in bringing them all together via this workshop and expressed desire to continue contributing to this discussion; their agreement to establishing a closed FB group and Google doc for drafting outline of ODFL policy indicates their willingness and enthusiasm (Figure 10).

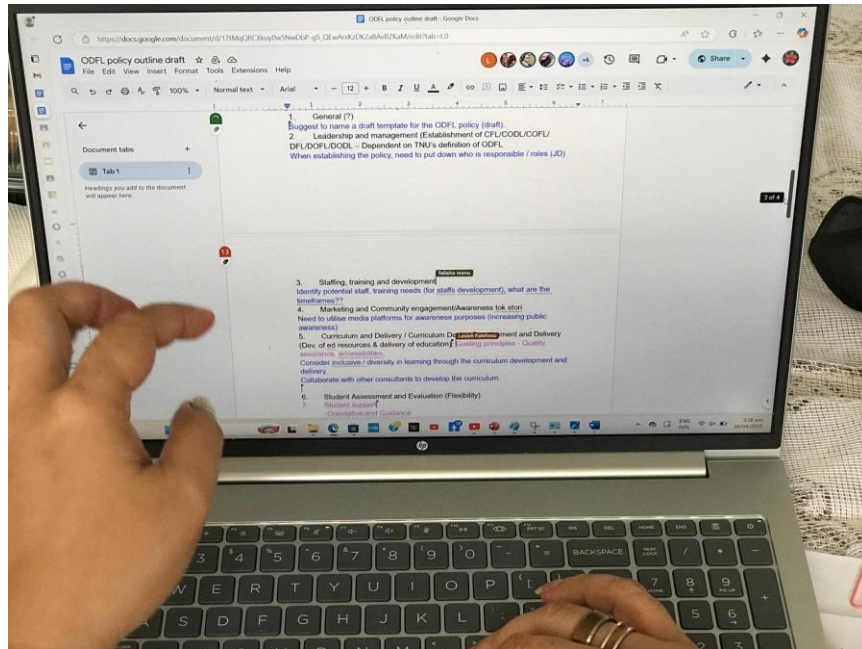


Figure 10: Day Two - Participants working on Google doc contributing towards outline of ODFL policy

The participants contribution in ODFL policy drafting during the second workshop was exemplary and as VC commented, it was indeed a “bottom-up” approach. A couple of items in the ODFL draft policy outline were open discussion sessions and participants provided their contributions verbally and/or through the shared Google doc; item on priority areas were deliberated and worked within various groups based on participants expertise and experiences. One of the noteworthy points in this policy was formulation of statements on OER and TNU’s commitment to encourage staff in development of OER as a way to localize and contextualize content and existing resource. One of the unexpected outcomes of the workshop resulted in the development of TNU’s first OER. In order to ensure that ODFL services are implemented, the need to establish a center was identified during the first workshop. A simple name for the centre was proposed and agreed upon at this workshop, Centre for Open Distance and Flexible Learning (CODFL). A statement in the policy reflects creation and name for the Centre. The CODFL’s administration structure and its position within the existing TNU organisation structure was then discussed and drawn out (organogram) on the white board; one of teaching staff from FNS created the artwork for it and released it as an OER.

Another insightful point made was the need to retain Tongan values and its essence during the redesign current content for ODFL. This resulted in valuable contribution by the groups with participants from the two schools in FEAH. The contributions from the participants from School of Information technology at FST and FBPA made significant contributions to priority area on ICT in the ODFL policy. The local knowledge is evident in ICT policy statements including an innovative suggestion on development of TNU network (TNUNet) and areas demanding attention as well as approaches to ensure stable ICT infrastructure, services and skilled staff personnel, and support for staff and students at TNU. A major takeaway from this workshop was participants’ contribution towards the development of TNU’s ODFL policy. The ODFL policy is a result of collaborative efforts of all individuals who were present during this workshop.

Evident through the discussions and pre- and post-survey questionnaires, there was an increased understanding / knowledge of ODFL policy development gained by workshop attendees after the three days’ workshop. Out of 20 pre-workshop survey respondents, only 1 revealed they were not familiar with ODFL policies. The understanding of ODFL policy development and validation varied across the group and 5 had never attended any workshop on ODFL policy development and validation or implementation activities. It should be noted 15 indicated that they had attended COL’s workshop for National ODFL policy development for Open Schooling. One participant expected to gain clarity on TNU’s direction for ODFL at this workshop. While rest expected learning about ‘skills for

contributing to policy development’ and ‘opportunity to provide input into the policy’ also in addition to ‘clarity on TNU’s direction for ODFL’.

Out of 20 post-workshop survey respondents, ALL responded with a “yes” to the question on if they feel they gained knowledge or enhanced understanding of ODFL policy development and validation after attending this workshop. A participant commented, “I like the group work and able to work on our own to develop the policy”. Majority of participants requested training on policy implementation and plan and finance model/ budget proposal. Some major areas identified for the future workshops post policy development indicate a growth in understanding of ODFL aspects and are as follows:

- Policy implementation, plan and budget proposal
- Trial CODFL operation
- Best practices from other universities and lessons learnt from their ODFL centres
- Learning from other universities in the Pacific

Collaborative learning and sharing of best practices from region work well across PICs.

## CONCLUSION

The research focused on providing insight on perception of ODFL by stakeholders at TNU, institutional readiness and support, technology and infrastructure and future perspectives. Findings revealed positive perceptions for ODFL, for resilience in education for Pacific Island Countries. Additionally, TNU has demonstrated its collaborative partnership abilities as it has successfully partnered with (i) COL on various ODFL related activities, (ii) universities in NZ, Australia and China on various programs and (iii) agencies such as EBSCO to strengthen its library system. It would be useful to ensure future activities build on existing initiatives. A concerted effort is required whereby TNU takes a lead and directs development partners and donors to ensure replication is avoided and key priority areas are addressed adequately. The importance and relevance of onsite visits for any work in a country cannot be underestimated. The interactions with the staff and the senior management team at TNU and other education stakeholders through formal and informal meetings during the two visits to Tonga afforded a better understanding of the context and the facilities available for ODFL.

In the absence of a centralized unit, ODFL operations are fragmented and this was evident in the contextual analysis survey result as well as discussions during the workshops. Establishment of a Centre for ODFL (CODFL) will streamline all ODFL activities; thus, CODFL is crucial for TNU, affirming its readiness for ODFL. The discussion on structure of the proposed Centre for ODFL suggested that clarity on roles and responsibilities will be crucial to ensure smooth ODFL operations.

The strengthening of existing infrastructure and training for teaching, technical and administration staff is crucial for effective ODFL operations at TNU. It has become clear that TNU will require technical and financial assistance throughout this process. Absence of a reliable and independent internet and communication network appears to be a bottleneck for ODFL operations at TNU. Drawing from USPNet and the affordances of university owned network emphasized the urgency of establishing a reliable and independent network that is owned by TNU (TNUNet), hence its inclusion under the ‘ICT’ priority area in the ODFL policy document. Context relevant and appropriate technology for ODFL in Tonga is crucial. The need for ensuring technologies for ODFL are inter-operable, accessible and affordable was reiterated and features in its policy.

Sustainability is crucial for ODFL at TNU. In light of disaster-prone Tonga, sustainability requires multi-sectoral approach including local, national and international collaboration at all levels. A clear emergency response plan with a special fund set up is imperative. Therefore, a sound financial model with a comprehensive implementation plan and monitoring and evaluation mechanism was considered prudent. The importance of ODFL for resilience in HE cannot be emphasized enough. Given the frequency of natural disasters in the recent years, need for ODFL is evident. With a positive perception and enhanced understanding of ODFL issues, the staff and their leadership team, have begun to embrace institutional change processes. While the TNU’s ODFL policy is all set, next is the huge task of transitioning from policy to praxis.

## RECOMMENDATIONS

In light of lessons learnt and discussions surrounding priority areas, following recommendations are made for successful operationalization of ODFL at TNU.

1. Establishment of implementation and monitoring task force at TNU will ensure smooth transition from policy to praxis.
2. Policy dissemination should be conducted with internal and external stakeholders.
3. Establishment of CODFL and infrastructure development requires urgent attention. A dedicated team should be assigned for the establishment of TNUNet.
4. Continued assistance from COL is imperative in a number of areas as a way to prepare TNU with its ODFL journey. COL could assist in some of the areas highlighted in the previous section. A number of areas identified by the workshop participants are worth COL's attention for their future assistance to TNU.
  - a. Capacity building workshop for TNU teaching staff and staff for its Centre for Open Distance and Flexible Learning in different areas such as Course design, development and delivery, Open Educational Resources, learners' support
  - b. Training on micro credential framework and policy
  - c. Technical training for IT staff
  - d. Moodle development and support
  - e. Financing mechanisms and business model for ODFL

## REFERENCES

Borazon, E. Q., & Chuang, H-H. (2023). Resilience in educational system: A systematic review and directions for future research. *International Journal of Educational Development*, 99(102761).

<https://doi.org/10.1016/j.ijedudev.2023.102761>

Commonwealth of Learning (n.d.1). *Building resilience in Pacific education systems*. Retrieved from

<https://pacificpartnership.col.org/workstreams/building-resilience/>

Commonwealth of Learning (n.d.2). *Focus on Tonga 2021-2024*. Retrieved from

<https://oasis.col.org/server/api/core/bitstreams/668b2eba-f258-4c69-99cf-aae40ed3f180/content>

Commonwealth of Learning (2021). Mainstreaming Open, Distance and Flexible Learning (MODLF) for the Pacific Countries, June 26-July 17, 2024. Retrieved from

<https://pacfold-learn.org/news/pacific-partnership-for-open-distance-and-flexible-learning-odfl-in-the-pacific-project/>

Commonwealth of Learning (2024a). Mainstreaming Open, Distance and Flexible Learning (MODLF) for the Pacific Countries, June 26-July 17, 2024. Retrieved from

[https://pacificpartnership.col.org/wp-content/uploads/2024/05/24\\_OS\\_MODFL-course-May\\_rev1.pdf](https://pacificpartnership.col.org/wp-content/uploads/2024/05/24_OS_MODFL-course-May_rev1.pdf)

Commonwealth of Learning (2024b). Partnership for Open, Distance and Flexible Learning in the Pacific. Country Briefing: Tonga 2023-2024. Retrieved from

[https://pacificpartnership.col.org/wp-content/uploads/2025/02/Country-report\\_Tonga\\_Dec18\\_2024.pdf](https://pacificpartnership.col.org/wp-content/uploads/2025/02/Country-report_Tonga_Dec18_2024.pdf)

COL (2025). Tonga National University embarks on national drive for inclusive, flexible learning. Retrieved from

<https://www.col.org/news/tonga-national-university-embarks-on-national-drive-for-inclusive-flexible-learning/>

Facebook post (17<sup>th</sup> March 2025). Steps for Accessing Online Course, Flyer. Retrieved from

<https://www.facebook.com/share/p/1XMqnyZFrm/>

Facebook post (19<sup>th</sup> March 2025). EBSCO information services. Retrieved from

<https://www.facebook.com/share/p/1H6mahPnZA/>

Global Partnership for Education (GPE) Secretariat. (2021, June 29). *Tonga: Building a resilient education system to mitigate the impact of Covid-19 and natural disasters*. GPE Transforming Education. Retrieved from

<https://www.globalpartnership.org/blog/tonga-building-resilient-education-system-mitigate-impact-covid-19-and-natural-disasters>

Hayakawa, R., Underwood, R., & Anson, J. (2023). The modern history of ICT in Oceania—PEACESAT and USPNET. *IEEE Annals of the History of Computing*, 45(4), 11–26.  
<https://doi.ieeecomputersociety.org/10.1109/MAHC.2023.3316670>

Ministry of Education and Training (2020). A scoping study for a Tonga National University. Scoping report. Retrieved from <https://tnu.edu.to/wp-content/uploads/2023/01/Scoping-REPORT-Tonga-National-University.pdf>

National Development Summit for TSDF III 2026-2036 article. Retrieved from <http://pmo.gov.to/national-development-summit-for-tongas-strategic-development-framework-2026-2036/>

PM Press (2025). Media Release on ‘National Development Summit for Tonga’, 11<sup>th</sup> March 2025. Retrieved from <https://www.facebook.com/photo/?fbid=1173237864159814&set=pcb.1172745277542406>

Press Release (2025). First Vice Chancellor of the Tonga National University. Retrieved from <https://www.facebook.com/photo/?fbid=622426474065732&set=pcb.621929130782133>

Deleted for Peer Review

Deleted for Peer Review

Steen, T.M. Katoanga, T., Taufa, M., Kaitapu, S., Ma’u, T. & Reid, I. (2022): A multimodal education response to the resilience challenge. Retrieved from <https://oasis.col.org/server/api/core/bitstreams/07ceeb08-805b-4508-b35f-a0873e4cfdb1/content>

Tonga National University Act 2021. Retrieved from <https://tnu.edu.to/wp-content/uploads/2023/01/TongaNationalUniversityBill2021.pdf>

Tonga National University Strategic Plan 2024-2029

Tonga Statistics Department (nd). Retrieved from <https://tongastats.gov.to/>

Tonga Strategic Development Framework II 2015-2025. From <https://pmo.gov.to/tonga-sustainable-development-goal/>

UNESCO (2024). Global Education Monitoring Report 2024: Pacific: Technology in education – A tool on whose terms. UNESCO, Paris.

World Bank. (2022a, May 30). *Securing a future with safe schools: Building resilience in Pacific schools*. <https://www.worldbank.org/en/news/feature/2022/05/30/securing-a-future-with-safer-schools-building-resilience-in-pacific-schools>

World Bank. (2022b, July 22). *US\$19 Million for safer schools and improved emergency early warning systems in Tonga* [Press release]. <https://www.worldbank.org/en/news/press-release/2022/07/02/us-19-million-for-safer-schools-and-improved-emergency-early-warning-systems-in-tonga>

World’s University With Real Impact (WURI) (nd). Retrieved from <https://www.wuri.world/2022-top-50-crisis-management>

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<sup>i</sup> Flyer on accessing online courses: <https://tnu-elearning.edu.to/>

<sup>ii</sup> TNU Learning site: <https://tnu-elearning.edu.to/login/index.php>

<sup>iii</sup> TNU Lecturers Resource: <https://tnu-elearning.edu.to/course/index.php>

<sup>iv</sup> Library: <https://elibrary.tnu.edu.to/>

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<sup>v</sup> [https://elibrary.tnu.edu.to/cgi-bin/koha/opac-page.pl?page\\_id=12](https://elibrary.tnu.edu.to/cgi-bin/koha/opac-page.pl?page_id=12)

<sup>vi</sup> [tps://elibrary.tnu.edu.to/cgi-bin/koha/opac-page.pl?page\\_id=11](tps://elibrary.tnu.edu.to/cgi-bin/koha/opac-page.pl?page_id=11)

<sup>vii</sup> [https://elibrary.tnu.edu.to/cgi-bin/koha/opac-page.pl?page\\_id=10](https://elibrary.tnu.edu.to/cgi-bin/koha/opac-page.pl?page_id=10)

<sup>viii</sup> <https://digitalpasifik.org/>

<sup>ix</sup> Currently with Starlink penetrating Tonga (<https://islandsbusiness.com/news-break/starlink-approved-in-tonga/>), users have yet another option through their three internet providers that earlier relied only on subsea cable ([https://developingtelecoms.com/telecom-technology/optical-fixed-networks/16989-tonga-suffers-internet-disruptions-after-domestic-subsea-cable-break.html?utm\\_source=related\\_articles&utm\\_medium=website&utm\\_campaign=related\\_articles\\_click](https://developingtelecoms.com/telecom-technology/optical-fixed-networks/16989-tonga-suffers-internet-disruptions-after-domestic-subsea-cable-break.html?utm_source=related_articles&utm_medium=website&utm_campaign=related_articles_click))