The Journal of Sāmoan Studies

Volume 12, No. 1, 2022

Cover design by Nadya Va'a of Capital Designs

The cover design by Nadya Va'a comprises abstractions of breadfruit leaves and ocean colours illustrating the growth and development of Sāmoa, its natural resources and land. The fale motif represents the social, political, economic and religious structures of Sāmoa, with tapa (siapo) motif and textures in the design referencing fa'asamoa and cultural heritage. The diagonal elements from old tapa designs symbolize quantified information

The Journal of Sāmoan Studies

The views expressed in the Journal of Samoan Studies are those of the authors and not necessarily of the Centre for Sāmoan Studies or the National University of Sāmoa.

Articles submitted to the Journal of Sāmoan Studies may be written either in the English or the Sāmoan language.

CONTENTS

Women in the *feagaiga* of the Congregational Christian Church in Samoa

Torise Sa'u-Neemia, National University of Samoa

Abstract

This paper discusses the religious transformation of the Samoan concept of feagaiga which has led to the indeterminate role and status of women in the Congregational Christian Church Samoa (CCCS). In pre-Christian Samoa the sacredness and honour of Samoan women was safeguarded by their status as the feagaiga, a Samoan concept which literally means 'covenant' and initially referred to the covenantal bond in a sister-brother relationship. It was a feagaiga that not only ensured Samoan women were protected from birth by their brothers, but it also guaranteed their place as decision-makers in the family. The arrival of missionaries from the London Missionary Society (LMS) in the nineteenth century, led to the appropriation and religious transformation of the concept of feagaiga. Today, according to the contemporary concept of feagaiga in the established structures of the church in Samoa, only ordained men or pastors are attributed the metaphorically sacred qualities of feagaiga and are honorifically referred to as Fa'afeagaiga. Women on the other hand are no longer considered or treated as sacred unless they are married to a Fa'afeagaiga.
Keywords: CCCS, Gender, *Feagaiga*, *Faletua*

Introduction

In 2011, the Congregational Christian Church Samoa stripped an ordained minister (*faifeau*) of his religious status in the church because his wife (*faletua*) (an ordained minister of the Presbyterian Church of Aotearoa New Zealand) accepted a calling from a Presbyterian parish in Auckland (Apisaloma 2013). The decision by the faletua to accept the calling was a clear indication that religious denomination and the *faletua* status in the CCCS were insignificant factors of consideration. According to members of the CCCS parish where the *faifeau* served, their *faletua* was doing God's work, and this is why they supported her decision (Frost 2012). When the *faifeau* and *faletua* were asked to leave their parish by the CCCS Elders, intense debate flared on social media and in Samoan newspapers; many people began to question if the *faletua* had any rights outside her role as the wife of a *faifeau.* It is generally accepted for a *faletua* to work for an income while serving alongside her husband in a CCCS parish outside Samoa, However in the conventions of the CCCS in Samoa, a *faletua* is a role model for Christian women, and does not work outside the home due to her husband's status as clergy. Beside her role as wife and mother, and before formal education that became widespread in the 1950s, a *faletua* along with the *faifeau* was a teacher, not only of religion but for imparting basic literacy and numeracy to children in the communities she served with her husband (Tanielu 2004). Today, aside from Sunday school, the joint role of a *faifeau* and *faletua* as educators takes up less time, and the impacts of formal education and social change have made the role of the *faletua* in the community more indeterminate. This is a far cry from the sacred status women once had before the arrival of Christianity to Samoa. As sacred covenant (f*eagaiga*) women were revered and were not dependent on their husbands to assist or uphold her status.

Samoan women, especially the elder daughter were referred to as the *feagaiga* or sacred sister and they were revered and treated with the utmost respect (Grattan 1948; Schoeffel 1995; Tcherkézoff 2000). The place of every other family member was determined by their relationship to

the 'sacred' member(s) of the family. The relationship between these members and the sacred members was based on the concept of *feagaiga* (Gilson 1970; Meleisea 1995). Today, the *feagaiga* now refers to the sacred *faifeau* or the *Fa'afeagaiga* in the church; women in the CCCS have no rights to this title, and instead serve in a domestic capacity to the sacred party now in the new religious context of the *feagaiga* (Latai 2015). This article will explore how the transposition of the sacred status of the *feagaiga* from Samoan women to the *faifeau* relegated women to a secular and secondary status in the church.

Pre-Christian Feagaiga

Rev. George Pratt of the London Missionary Society (LMS) compiled a Samoan Dictionary which he began not long after his arrival in Samoa in 1839. He reports the following definition of '*feagaiga*' (p118):

> *FEAGAIGA, s. 1. an established relationship between different parties, as between brothers and sisters and their children. Lota tuafafine le feagaiga. Also between chiefs and their tulāfale. 2. An agreement, a covenant. A lately adopted meaning. 'O la lā feagaiga*

Pratt notes the primary meaning in Samoa at the time was the *feagaiga* relationship between two people or two groups of people. Pratt's secondary definition notes *'feagaiga'* as an 'adopted' term to refer to 'an agreement or covenant'; the implication here is that *feagaiga* as an agreement or covenant is just emerging in Samoa at the time of Pratt's compilation of Samoan terms and their meanings. In other words, the term *feagaiga* was perhaps not prominently used to refer to an 'agreement' or covenant prior to the arrival of Christianity; instead its prominent use refers to the *feagaiga* relationship between brothers and sisters.

The root word of *feagaiga* is *feagai* which is defined as,

> *v. 1. to be opposite to each other. 2. to correspond. 3. to dwell together cordially, to be on good terms; as a chief with his people, or a minister to his flock* (Pratt 1862, p139).

This meaning refers to a duality involving two parties where one is opposite to another or facing the other. The examples of 'chief and his people' and 'minister and his flock', refers to two groups with participants who have distinctly different statuses but are nonetheless interdependent upon each other. For example, a chief looks after his people just as a pastor must look after his flock, and in return, they too are well cared for with reverence, respect and deference by their people or flock. Pratt's definition illustrates who the most prominent groups in Samoan society were at the time of the Christian missions, they were the 'chiefs and villagers' and the 'pastors and congregations'.

The following story of Fatu and Eleele and their children from the village of Ta'u in the group of Manu'a Islands illustrates the *feagaiga* between brothers and sisters,

> *The first human being on earth were Fatu and Eleele. They were created by Tagaloa Lagi. This man and woman had ten boys and one girl. When the father, Fatu, grew very old and was about to die, his last wish (mavaega) was that the oldest boy would be the head of the family. Upon the death of this eldest son, his place should be taken by the next oldest brother and so*

on down the line until there were no more brothers, whereupon the eldest son of the eldest brother should succeed to the position. The girl was made tamasa [sacred child] and the brothers were told "burn your faces (e mu iai o outou mata), meaning that each day they should make the oven for the girl and that she should only eat hot food rather than the food cooked the day before, lest their children get sick if they did not. This was a way of saying that they must always pay special attention to their sister (Holmes 1957, Faatauva'a 1992; Ete-Limā 2003).

According to Llowell Holmes, this particular story refers to the sister as the 'sacred' one and to the brother it attributes physical (secular) tasks; it "explains the balance of power within the Samoan family whereby only the males of the family are eligible for titles, but must pay special attention and respect to the females and their descendants" (1957: 320). The sacred power that is passed down from Fatu to his daughter and the expectations upon the brother toward his sister identifies the two opposite groups in this relationship. This relationship is based upon the *mavaega* or death wish of the father.

Michiko Ete-Limā sites a *fagogo* or myth from Manono, which tells of Tafitofau and Ogafau's two daughters Sinaleuuna, Sinaeteva and son Maluafiti. When they tried to find a suitable match for their brother, the sisters came across a beautiful lady named Sina in Fiji. Although Sina mistreated the two sisters, they were determined to have Sina fall in love with their brother. When Maluafiti eventually found out about Sina's ill treatment of his sisters, he refused to court the Fijian beauty. Ete-Limā writes, "The brother's desire for a beautiful woman was comparatively less than his anger at his sisters' ill-treatment" (Ete-Limā 2003: 29; Turner 1884: 98-101).

These stories provide an understanding of the ancient Samoan concept of *feagaiga* in the brother-sister relationship implied by Pratt. The sister epitomized sacredness, she represented the ideals of honour, dignity and grace. As the sacred one in the relationship with her brother, the term of reference given to the sister was *feagaiga*. To her brother(s) in particular, ensuring her safety was a primary duty in life. It was a *feagaiga* that bespoke a bond that was etched upon the hearts of the Samoan people in pre-Christian Samoan society, and this is evident in the fact that even when the sister passed away, her brother and his children continued their role in the *feagaiga* with her descendants (Kramer 1902: 63). This is best explained by Schoeffel who at the same time claimed how other social structures in Samoa can be seen as 'metaphorical extensions' of the 'brother-sister' relationship:

As a sister is to her brother, so is a female descent line to a male descent line when their respective lineages originated from a sister and brother pair. As a sister is to her brother, so is a minister to his congregation or an ali'i to a tulafale (Schoeffel 1979: 296; see also Grattan 1948: 127).

Mana – Sacred Power of the *Feagaiga*

The sister's sacred status was a result of her possession of mana or sacred power from her ancestral gods (Pratt 1862, p204). This mana was also linked to the sacred death wish (*mavaega*) passed down from a father to his children, to protect the sister/daughter who possessed the ancestral gods mana

(*tamasa*). So, a brother was drawn to his duties by his sister's sacredness, and at the same time he was pulled into it by his father's *mavaega* (dying will). The mana that pulled a brother to his sister was instilled in all brothers in pre-Christian Samoa. This is illustrated in more detail by a Samoan creation myth, where the Samoa creator god Tagaloaalagi gave mana or divine power to the descendants of human women; women whom he had taken as his wives and whose demi-god offspring became the ancestors of the paramount chiefly lineages of Samoa (Schoeffel 1979: 282). The mana flowed from Samoa's creator god through Samoan people via women, and as the descent lines expanded the mana spread amongst a greater population. A graded hierarchy of chiefs developed from this expansion and according to Schoeffel, their chiefly rank was "dependent upon matrilineally inherited *mana*" (Schoeffel 1979: 282). In other words, in order for the sacred chiefs (*ali'i paia*) to maintain their high status, it was important that they marry high ranking women, as this ensured a descent line with less diluted ancestral mana (Meleisea 1987: 68). Therefore, mana was power and in pre-Christian Samoa this was strongly linked to Samoan women.

The New *Feagaiga*

Transformation of the pre-Christian Samoan feagaiga

When the LMS arrived in 1830, the British missionaries and the Pacific Island teachers they came with began to teach the Samoan people about a new sacred mana bestowed by the Christian God. The missionaries, although some were female, taught that only men could be carriers of the new sacred mana as *faifeau*, and women were their helpers. The conversion work carried out by the missionaries and island teachers from Rarotonga and Tahiti was extensive. To cover as much of Samoa as they could, they started to train locals to help them in their work to convert more Samoans. In letters sent by the missionaries to the LMS office in London, the missionaries explained their classes and their training of locals to help them teach about the Bible.

> *In Falealupo, Savai'i: We have school for adults four nights a week. Most of our scholars make slow progress but some of them give us encouragement. We have also a bible class 2 nights in the week, and on Saturday a prayer meeting of the church… I have spent five mornings in the week at the children's school. This school was managed by the natives themselves and most of the teachers needed to be taught (Drummond 1842).*

> *In Sapapali'i, Savai'i: The schools, however, are well attended and some progress is being made in reading, writing, Arithmetic + useful knowledge (Hardie 1842).*

Prior to the first education institutions being established in Samoa, the wives of the missionaries taught groups of women in the villages how to be good mothers and good wives in European standards. In his report on mission in Savai'i, Rev. Charles Hardie included the following account of his wife's work with the women in the village,

> *Mrs Hardie's female school continues to be well attended – many of the scholars have made respectable progress in reading and writing + have also done a little in Arithmetic. About 18 months ago Mrs Hardie formed the female church members into a Maternal Association, which has done much towards correcting many evils connected with the disposal + training of native children, and from which we expect increasing + happy results (Hardie 1842).*

Given the situation in Samoa where more teachers were in demand, Rev. George Turner and Rev. Charles Hardie were given charge by the London office of the LMS to set up an educational institution to build a greater 'native agency' to cater for the demands in Samoa (Turner 1861: 124). In 1844, the Samoa Mission Seminary (later the Malua Theological College) was established and gradually developed to become the main centre for training future LMS pastors in most parts of the Pacific. From the time of its establishment it only admitted men. However, in 1851 the number of married couples in the Seminary was thirty-four and this meant, thirty-four women required education just as much as their husbands. As the years passed, the demand from villages for educated women to serve alongside their husbands was considered. Thus, in 1864 a condition for Samoan students' entry into the Mission Seminary was for the preference of married students. According to Rev. George Turner it was important to educate women so that they too could go out into the villages and educate the women and children (Turner 1861: 126).

While in the Mission Seminary men were trained to be competent in theological studies and their wives were trained to be competent in domestic duties. The wives of the LMS missionaries at Malua taught the women domestic work such as sewing, embroidery and cooking and how to take care of children (Hills 1912). In 1892 the Papauta School for Girls was established by the LMS Church. Papauta was considered a critical institution in the Pacific because of its training of Samoan girls to be appropriate wives of *faifeau*. The two female missionaries in charge of the establishment were the German, Valesca Schultze, and Elizabeth Moore from Ireland (Small 1967). The first girls to attend Papauta were the daughters of matai. Upon their graduation, most girls either became the wives of pastors or the wives of prominent matai (Garret 1982; Tuiai 2012). Papauta girls who married Seminary students, entered the Seminary and received more education, specifically focused on her future role as a *faletua* (Turner 1861).

The new *feagaiga* established between the Samoan people and the missionaries reversed the roles of the two parties (men were now carriers of sacred mana while women were their helpers), and also reversed the status of the two parties, men were now referred to as the *feagaiga* and women as *faletua*. This changed because the new *feagaiga* was not compatible with the expectation placed on women; that the natural vocation of women was as domestic housewives or as helpers to their husbands. The missionaries and their wives had firmly placed women in the secular structure of the *feagaiga* and thus effectively kept them away from the sacred structure which they once occupied.

Faletua

Before the arrival of Christianity, only the wife of the sacred chief (*ali'i paia*) was referred to as a *faletua* (Latai 2016). It is the highest title for a married woman and was thus adopted by members of the church to refer to the wife of a *faifeau*. The word *faletua* derives from the two words house (*fale*) and back (*tua*); literally it means 'house at the back'. Although the literal meaning presupposes a sense of inferiority, in relation to the setup of the Samoa household, the 'house at the back' can be compared to the engine room of a train, without which nothing moves. Another definition of the *faletua* which highlights her role in the background is fautua. According to Pratt, *fautua* means 'advocate' (p25) or 'plead' (p52); thus, a *fautua* is someone who pleads or advocates for someone or something. However, the term *fautua* was later commonly used to refer to someone who was an 'advisor'. In 1900 under the German Administration of Samoa (1900-1914), the Germans established

the office of High Advisers (*Fautua*) for the Paramount Chiefs (*tama-a-aiga*). The role of the *fautua* was to advise the German administrators on island matters (Keesing & Keesing 1956: 24). Today, the term is commonly used to refer to someone in the role of advisor. The *faletua* in her supporting role is often defined as a *fautua* to her husband, the *faifeau*.

Faifeau

As mentioned above the pastor is referred to as a *faifeau*, *fai* meaning "to do; to say, to speak; to get, to obtain, to possess; to become, …" (Pratt 1862: 113), and *feau* meaning "a message… to send for" (Pratt 1862: 118). A more contemporary meaning for *feau* is also 'work' or 'chores' (these are used commonly today). Based on Pratt's definition, a faifeau would be a 'messenger' or in today's context it would mean someone who does chores or a servant for the Christian God. Both *faifeau* and *faletua* are referred to as 'covenant keepers' by Latai because they are the sacred party in the new church *feagaiga* relationship (2016).

Fa'afeagaiga

The official term given to a *faifeau* who has entered into a *feagaiga* relationship with a village church is *Fa'afeagaiga*. The *Fa'afeagaiga,* (*fa'a* [to be] + *feagaiga* [covenant]), literally means 'to be covenant'; or because he has entered into a relationship with a village church in a ceremony referred to as the *Osiga Feagaiga* (*osiga* [maker] + *feagaiga* [covenant]), which literally means 'covenant maker'. So the pastor alone is referred to as the Fa'afeagaiga, his wife who stands beside him during the ceremony is simply referred to as the wife of the Fa'afeagaiga (*faletua o le Fa'afeagaiga*).

Feagaiga in the village church

The transformation of the titles and roles given to the carriers of sacred mana over the years (especially with *faifeau* and *Fa'afeagaiga*) reveals how much the church has become a part of the Samoan way of life or Samoan culture. The Samoan word associated with culture is *aganu'u*; which is made up of two words *aga* and *nu'u*. The word *aga* is defined as 'to do, to act, to go' and '*nu'u'* usually refers to 'village' (Pratt 1862: 236; Freeman 1983: 120-122). Therefore culture (*aganu'u*) could be defined as the 'way of the village' and refers to the importance of the village in the identity of a person and thus their role in the church *feagaiga.*

Matai

Essential to village control are the chiefs (matai*,* holders of *ali'i* and *tulāfale* titles) who are responsible for extended families based on various kinship relationships. A matai is chosen based on their demonstrated service to the family; they are also subject to a meeting of the extended family for a bestowal of a matai title. The matai title gives the matai authority over the lands connected to the matai title. The matai is also responsible for maintaining the prestige of the extended family in the effective use and administration of their lands and resources (Holmes 1987: 39-41).

Living in a village context where there are other extended families that also have matai, compels the need to have a Village Council (*Fono*). The *fono* is of utmost importance to village dynamics, just as family matai are concerned with family prestige, so too is the village *fono* concerned with the prestige of the village (Gilson 1970: 17-19). The *fono* consists of two types of *matai*, the high chief

(*ali'i*) and the orator chief (*tulafale*). The difference is a matter of function, the *tulafale* speaks on behalf of the *ali'i*, but the *ali'i* makes the final decision on matters with families and village. *Ali'i* titles are known to have sacred mana (power) based on ancient lineages and sacred ancestors. The *tulafale* titles, on the other hand, are more 'executive' titles that carry special duties. These duties are often related to 'service' to an *ali'i*, but this may differ from village to village (Meleisea et al. 1987: 27). According to Serge Tcherkezoff (2000), in Samoa today, the distinction of the two *matai – ali'i* and *tulafale* has diminished due to the singularity of the term matai. The use of the term 'matai' in pre[1]Christian Samoa encompassed all family leaders, including family members who were the best in a particular trade (for example, master carpenter). With examples of compound words based on matai (from Pratt and Milner), Tcherkezoff says that it is "evident that the base has indeed the meaning of 'the best, the first'" (2000: 174). So, the singularity of the term matai now embraces both the *ali'i* and *tulafale*, and is an historical transformation (Tcherkezoff 2000).

In the church *feagaiga* the matai hold the main positions in the church which are open to the laity. These positions include: Lay Preacher, Elder Deacon, Deacon, Church Secretary, and Church Treasurer. These leaders in the church monitor and ensure that the *fa'afeagaiga* and his family are provided for. Of all these positions, women have only been able to secure places as a Deacon, all other positions are held predominantly by men who are also the prominent matai in the village.

Oratory

Another significant aspect of *aganu'u* which has made its influence in the church is the medium of oratory. The oratory of chiefs institutionalized the rank of the matai, primarily through the address (*fa'alupega*) of the villages. A *fa'alupega* is an honorific address of a village that refers to descent groups, titles, place names, famous events, traditional privileges and relationships (Gilson 1970: p28). According to Derek Freeman, a *fa'alupega* served as the main mode of conveying rank and order;

> *"an institution of quite fundamental importance, for, with the formal reiteration of the relative rank of titles on every significant social occasion, a chiefly hierarchy becomes so firmly established as to make it exceedingly difficult to effect any fundamental change…" (Freeman 1983: 123).*

Oratory undoubtedly played a significant role in Samoan culture and further heightened with the development of two levels of the Samoan language, the chiefly language and the common or colloquial language. The chiefly language is one which Milner states as having a lexicon or vocabulary of respect; Pratt also calls the chiefly language one of 'politeness' (Milner 1966: 296-317; Pratt 1862: 85). Combined with the mana of the matai title, the 'chiefly language' added another level of respect by which the decisions of the matai were respected and carried out.

Formal ceremonies that involved the exchanging of gifts (especially fine mats or *ie toga*) is a platform for Samoan oratory. The exchange of Samoan gifts often required the collective and productive efforts of everyone in the village for the visiting parties (*malaga*). Anything remaining was often distributed to the *malaga* group to maintain family alliances and create new alliances with other villages. For these purposes, it was therefore very important that the villages in Samoa maintained high levels of self-sufficiency.

Self-Sufficiency

Samoan villages were very self-sufficient and the three factors which contributed to this were:

1. Samoa's natural environment which yielded an abundance of natural resources – especially with agriculture and fishing.

2. Samoans were raised on the notion that each member had a place in the social order of the village; that each person was required to give their time and support for the benefit of the village – through village projects etc.

3. The competitive nature and pride of the Samoan people – especially prevalent between families and between villages.

The Samoan people have always had the means to support their *matai* and their families by utilizing their natural resources. When it came to supporting the *faifeau* and his family, as well as the mission in Samoa and in the Pacific, these were the same means used to accumulate funds for church contributions (Board of Missions & Education 1861: 190). The competitive and proud nature of the Samoan people in their contributions is still evident in the church today where family contributions are announced (Gershon 2012; Va'a 2001; Janes 1990).

The church adapted to the social order within the village. The above elements of *aganu'u* were utilized by the church to establish its place at the centre of the village. According to Tuiai, an important element which elevated the status of the pastor in the village owed much to the significance of Samoan oratory. "Since oratory is important in the culture, the pastor's sermons assume cultural significance. The pastor's sermon espouses the will of God and thus the words are more sacrosanct than the *tulafale*" (Tuiai 2012: 16).

Va Tapuia – Sacred Space

The *va tapuia* is a sacred space that exists in the relationships of people and between people and the environment; it is a space that guides the interaction between the two parties on opposite sides (Vaai 1999: 46-47; Hau'ofa 2000: 465). The idea that the *va tapuia* in a relationship is sacred and 'cannot be trespassed' denotes a relationship where interaction is carried out in a sacred manner, where there is one party which is taken care of and not ill-treated, respected and not ignored, loved and not abused. This is exactly how Samoan women were treated in their status as *feagaiga* in pre-Christian Samoa and now, this is how the *faifeau* is treated by the village and the church. This is the *feagaiga* covenant relationship between the *faifeau* and the congregation in the village church.

Responsibility of the *faifeau* and *faletua* in the village church

According to Garrett, the *Fa'afeagaiga* and his family possess a privileged courtesy of both culture and church (1985: 124). Samoans consider them as the gate-keepers to blessings from God; which could possibly explain why Samoans are so generous in their donations to the church. In the early years of the church in Samoa, the missionaries realized that the church had become more and more a part of the social structure of Samoan life, "the authority of the *faifeau* over his congregation as of the *matai* over his household, became central to the Samoan conception of religion" (Davidson 1967: 37). The

expectation on the *faifeau* to lead the village church as a family continues to influence his ministry today. Not only does the *faifeau* work 'physically' and 'mentally' towards the development of life in the village, he also works to spiritually nurture life in the church.

The *faifeau* and the men of the church, who are usually the lay preachers and deacons, work on development plans for the church. Often these plans include building or renovating church buildings such as the church, the hall, and the *faifeau*'s house. Other projects looked to develop plantations that yielded crops and generated an income to help families as well as to raise funds for other church projects.

The *faifeau* also conducts weekly Sunday services. Many CCCS churches in Samoa still offer two services on Sunday. Sunday school is often left to the *faletua* and lay preachers or *a'oa'o fesoasoani* and their wives. However, any decision making is finalized by the *faifeau*, especially when it concerns the spiritual development of the church. Many *faifeau* have stated that their ministry is twenty-four hours a day and for seven days a week; when there is a death in the church, the *faifeau* is called in as soon as possible. For birthdays and weddings, the *faifeau* is expected to attend and conduct the service. When there are major events in the village, such as the bestowal of *matai* titles, the *faifeau* is on hand to bless the new titleholders. The *faifeau* does not take part in the bestowal ceremony but he is called upon after the cultural ceremony to bless the new *matai*.

Accompanying the *faifeau* into the village church is his wife and children. It is important to state here that although the choice men make to be an *a'oa'o* is a choice of vocation, for the *faletua*, her choice is usually not for the same reason, but because they have a strong personal relationship which developed outside the church. The *faletua*'s conformity to the role of the wife of a *faifeau* is therefore assumed and is an unspoken and uniformalised expectation. The following stories of the women below illustrate the role and responsibilities of the *faletua* in this church *feagaiga* clearly. Both women were interviewed after they signed a deidentification form. They did not want to reveal their real identities.

Alofa's Story

At the age of twenty-four, Alofa had served in their current village church for three years. She married her husband while he was still a student at Malua Theological College (MTC). She spent two years at the college with her husband and remembers learning handicrafts (crochet, weaving, and printing (*elei*). She also recalls learning very little about the Bible, except for two classes a week with the lecturers and the daily worship services. Her days were spent mostly doing chores at home and around the college. In their final year at MTC, while they were preparing for their graduation, a group of village *matai* visited their home on the College compound:

> *We were surprised because most people have an idea when they will get a calling, but this was out of the blue. I remember how we were discussing our invites for our graduation when these matai walked up to our house and proudly told us that we had been selected to be their faifeau. My husband asked for time to consider it because our minds were still on graduation. After they left, we prayed and prayed; we also spoke with our families and our friends in Malua and then we made our decision the week before graduation to accept the calling.*

The *osiga-feagaiga* for Alofa and her husband took place two months after their graduation from MTC. Alofa remembers how their families all came to the village to see them settled into their new home. Immediately following the *osiga-feagaiga*, their families left and the villagers also left for their own homes; "and that's when it all sunk in, my husband and I just looked at each other and a feeling of loneliness set in; we held hands and sat down on the floor and just prayed our hearts out." After the first few weeks Alofa finally got into a routine; she was the leader of the Women's Fellowship and looked after the Sunday School.

The Women's Fellowship is her greatest challenge. When she arrived to the village church, the wife of the *a'oa'o fesoasoani* (lay preacher) was the Chairperson for the fellowship and she still is today.

> *It's ok for me because I don't know much about what these ladies are going through because they are so much older than myself. So many things I'd say and share with the ladies were based on my own experiences throughout the 'short years' of my life. Like with newborn babies, I couldn't say anything to comfort women from my own heart because I hadn't experienced it yet.*

However, just recently her confidence has been secured in the constant reminders the women give her, that she was called to be their spiritual mother *(tina fa'aleagaga)* with her husband. To Alofa it means, "They chose us, so as their 'spiritual mother' I know I didn't put myself here, they put me here." On matters where Alofa knows her experience is lacking, she delegates responsibilities to reliable women in the fellowship. This has often led to authority challenges, because she has allowed the women to make a number of decisions for the Fellowship. This perfectly describes the situation when she tried to introduce the idea of having a reading program for the children. Alofa felt that the women drew an assumption based on their experience with her, that the reading program would be too much for her to handle.

> *They don't really prepare us for leadership roles in Malua, only the President's wife gets that experience because she leads the Women's Fellowship. For me, what I learned in the two years I was at Malua, did not prepare me for life in a village church.*

Teuila's Story

Teuila is thirty-six years of age; she married her husband when she was twenty-four years of age, and he was thirty-four years old. Teuila did not spend any time at Malua and married her husband after he graduated. Teuila's marriage was arranged by their families but it has since developed into a mutually respectful and warm relationship where they now have four children.

When Teuila and her husband received a calling from a village church they accepted the calling and moved to the village almost immediately. She recalls the excitement on the day of their *Osiga Feagaiga* and how, "the people… gave us so many gifts, but it was also a time for our families to give them gifts."

After a few weeks, they settled into a routine. Sundays are her busy days with Sunday school starting at 7.30 am, followed by the morning service at 8.30am. After Sunday *toanai* (lunch) there is choir practice at 11 am for an hour and then at 3pm, they have afternoon church service. Teuila looks after the Sunday school and is one of the leaders of the Women's Fellowship group (full responsibility of this group was with the wife of the highest chief in the village). Due to a large number of youth in the village church, Teuila started up a Junior Youth group because she felt, "This is what ministry is all about, but without my husband's support I wouldn't be able to carry any of this out. He's here for me just as I am for him."

It is an ongoing joke with Teuila and her husband that Teuila does more work than he does, but then Teuila continues to say, "he goes on his visitations on his own, he prefers it that way, and he has the final say on a lot of the things I prepare for the Sunday school and Youth." Teuila's husband says that he prefers to go alone because if they both went, the family they visited would go out of their way to serve two people tea or even a meal. He stresses that his visitations are where he likes to be the one giving, not receiving.

Teuila tries to maintain her visitations of women and their children, but due to her busy schedule with her programmes as a *faletua* and with her own family, she only manages to visit the women when one has given birth to a new-born baby, or when the women or children are ill. Upon further sharing with Teuila, she confided that her greatest challenge at the moment is with her Women's Fellowship. Due to her age, compared to the older women she works with (most of whom are much older), she is not taken as seriously as she would like to be. When she gives ideas for the women's group, one of the older ladies would say, "leave the decisions to us, you just go sit next to your husband."

> *It gets really frustrating at times, especially when they try and*
> *prevent an activity with my youth, they know they have the power*
> *so they always exercise it when they know I need to be punished for*
> *not doing as they say.*

One such case occurred when she was told not to involve herself in any of the decision making for some guests who arrived from New Zealand. Teuila went out and bought Samoan baskets for the female guests as gifts from her Sunday school. Even with this, the women were against it and made their disapproval known to her.

> *It's really hard working with women my mother's age. Sometimes I*
> *forget I'm supposed to be a leader for these women and not their*
> *daughter. But then I guess with more experience and I guess*
> *'more' aging, I'll be taken more seriously.*

Teuila was raised in the CCCS church and was actively involved as a Sunday school teacher, a youth leader and a member of the church choir. However, because she was too young to join the Women's Fellowship, she had no experience with the dynamics of such a group.

Role of the faletua in the church feagaiga

The stories of Alofa and Teuila shed light on the role of the *faletua* as the wife of the *fa'afeagaiga*. As part of the sacred side of the church *feagaiga*, both *faletua* are expected to carry out duties in the

church as well as in the community with the women's fellowship group. Teuila's visitations are restricted due to her responsibilities to her own nuclear family. On the other hand, Alofa, with no children, commits her time and efforts to the Sunday school which she struggles with due to her inexperience.

Neither woman is the main leaders of the Women's Fellowship of the church; the power women have in the traditional social setting of the village carries over into the Fellowship, especially in Teuila's case where the *faletua* of the main *matai* is the chairperson. The villages are very different as well, the village where Teuila and her husband are settled in have *matai* titles from a *tama-a-aiga* or Paramount chiefly lineage. It is not difficult to assume that the confidence of the women in this village could stem from the prestige of being connected to one of the oldest and most sacred titles in Samoa. When Teuila shared that she was practically told 'to be quiet' and to 'just sit next to your husband' by one of the ladies in the Fellowship, she felt insignificant and disrespected. However, looking at this scenario in the context of the old *feagaiga*, what Teuila felt is perhaps what many wives felt in pre-Christian Samoa in the presence of the *feagaiga* sister. This was a clear indication that remnants of the old *feagaiga* continue to emerge, especially in the villages of the *tama-a-aiga* titles.

Although both women have a leadership role in their respective Sunday school, Youth and Women's Fellowship, their knowledge and experience determine the actual degree of their involvement in each of these groups. This could explain Alofa's quiet involvement with her Women's Fellowship and her inexperience in the Sunday school; also, Teuila's more active involvement with the children of the congregation and her efforts to have a voice in her Fellowship.

One area of women's work which they have great pride in is the decoration of the church, especially the pulpit linen and floral decor. Every *faletua* has a Christian Calendar with the Liturgical colours that represent the different seasons in the Christian year. Most women in the CCCS are familiar with the colours of these seasons because they are scheduled on a roster to decorate the church some time during the year. Decorations typically include flowers and pulpit linen (coordinated to the colour of the season). This is considered by many mothers and daughters as an important duty to the church, one which they take seriously and with a lot of pride.

The work of the *faletua* in the village is important, because the women make up a significant percentage of the membership in the village churches. The *faletua* of *faifeau* are members and some are leaders of a group of women who have a great say in the social development of the families in the church village. However, there is a concern that the *faletua*'s experience and knowledge could put them at a disadvantage in the village church, especially in the village church where the *faletua* is expected to carry out full responsibilities in the church Sunday school and leadership in the Women's Fellowship.

Women in the Village Church

Despite the earlier religious beliefs which honoured the sacredness of women in their aspect of sister, the influence of the church has focused on the complementary status of women to men. With regard to the male clergy, women were, and still are, viewed as wives and mothers, or 'helpmeets' (Garrett 1997, p97). In its teachings and structure the CCCS still advocates a conservative approach to gender,

linked to the gender-norms of nineteenth century England that it introduced to Samoa. With progress, development and global expansion of the church in Samoa, the ideal status of women in the church remains that of 'wives' and continues to be reinforced by the church's teachings and structures. In the CCCS, the maximum leadership position permitted to women is the role and status of deacon, and most women who achieve this status are widowed or unmarried, in other words women who are no longer or were never wives; in comparison, men have access to all leadership positions in the church, as Deacons, Elder Deacons, Lay Preachers, MTC students, and as Ordained Pastors (Autagavaia 2020).

In Samoa, a *faletua* who is currently serving alongside her husband in a CCCS village church is not permitted to take on any paid employment. In fact, the *faletua* is bound by the same church policies which bind her husband to the church; that is, she is not allowed to "deal in domestic commodities with the intention of creating personal wealth" (EFKS 2013: 75). Nor are they permitted to work for the government or receive tattoos (EFKS 2013). On the other hand, she has no entitlements from the church, receives no pension if widowed and has no defined responsibilities of service. In short, when a *faifeau* dies, his *faletua* returns to her family or village and is expected to support herself and her family using her own means, for many *faletua*, they pick up where they left and return to work as a public servant. However, when a *faletua* dies, her husband is expected to re-marry within a short timeframe if he wishes to continue in the ministry, which often the case.

Transforming Vision for Women in the *Feagaiga*

Feminist Theologian, Elisabetth Schussler Fiorenza's idea of discipleship of equals where both men and women empower each other is focused on women recovering their voices from the past and being fully embraced by the church today (Schussler Fiorenza 1998). This links to the ministry of the CCCS in Samoa and the place of women in the *feagaiga*. Women in Samoa are reclaiming their *feagaiga* unconsciously through their natural ability to work hard and with pride in their sacred status, even if only their husbands are referred to as the *Fa'afeagaiga*.

Another work by Schussler Fiorenza (1984) explores the historical origins of the discipleship of equals. She argues that the exclusion of women's history in the Bible is the result of a male bias in reading and interpreting the scriptures. She re-examines the history of the early church and draws readers to see women who worked hard, who preached, who hosted Christians in their homes, and women who were leaders in the early church. These women's stories show up in the history of the early church like tips of an iceberg with no disclosure of the iceberg's origins. Schussler Fiorenza's "efforts to reconstruct the Christian origins are thus an attempt to uncover the remainder of the iceberg that is submerged" (Stephenson 2011: 144). To uncover the full 'iceberg', Schussler Fiorenza encourages us to read the stories with an understanding of their context, especially the androcentric context of the Jewish culture at the time, and then to see the tips as signifiers of a democratic religious vision where men and women worked together as 'equals'. "In using this word [equal], she means to underscore that this group of people is characterized by the equality of rights and privileges of all its members" (Stephenson 2011).

Schussler Fiorenza's notion of ministry provides a point of dialogue with the theological concerns of women in Samoa. Like Schussler Fiorenza, the emphasis in this article is to show how important Samoan women have been and continue to be in the development of the church. It is important to

note here that most women in Samoa are not as liberal as international feminist theologians. Perhaps this would have been a different story if women in Samoa were still in possession of their sacred pre-Christian status as *feagaiga*, but alas, the identity of a Samoan women today is very much conditioned by a culture which is heavily influenced by the patriarchal text and androcentric context of the Bible (since the arrival of Christianity in 1830). The notion of a discipleship of equals is a vision which can be pursued by the clergy couple of the CCCS in its current context of ministry, only if women and men are given equal access to theological education. This may not be what feminist Schussler Fiorenza had in mind, especially with the patriarchal development of the church structures in Samoa; however, the notion of a clergy couple in the CCCS working as equal disciples would be the only likely step forward at this point in the church. Especially, with the CCCS emphasizing that only a married pastor can be ordained, and that only a clergy couple can take up a calling from a village parish.

The ordination of women in the CCCS has been raised in general discussions at a few General Assembly gatherings of the CCCS. However, most CCCS women have shown their support of the current ministry of the clergy couple. In 2009 a survey was carried out with women of the CCCS in one district (or *matagaluega*) in Auckland, New Zealand, regarding the ordination of women; over 80 percent of the women did not support the ordination of women (Tanielu 2010). Dr. Lonise Tanielu who presented a paper to the General Assembly of the CCCS in Samoa reported that the survey was a clear indication that the church was not yet ready for a female *faifeau*.

Schussler Fiorenza's *Transforming Vision* refers to a vision of a world of justice and love where women and men are equal disciples; "The vision that compelled Jesus as one among many in the discipleship community of equals was the vision of the *basileia tou theou*, of God's different world of justice and love" (2011). She claims that Jesus Christ was compelled by this vision of God's Kingdom (*basileia tou theou*) to serve alongside both men and women as equal disciples towards a world of 'justice and love'. This notion disregarded the gender of the disciple because the more important aspect of discipleship was ensuring the vision of God's Kingdom. The idea of focusing on one's ministry in the mission field rather than the gender of the missionary, enacts the vision of justice and love.

Conclusion

The new *feagaiga* in the church today has the same structures of 'sacred' and 'secular', and ultimately in this duality, secular power resides with the male leaders of congregations and districts, the same sacred power compared to secular executive authority that existed in the *feagaiga* of pre-Christian Samoa. A woman can only have an identity in the sacred structure of the *feagaiga* if she is connected to the church as the *faletua* of a *faifeau*, or an *a'oa'o fesoasoani* or *tiakono*. As a pastor's wife, her situation is different to that of other wives of male leaders in modern society. The church requires the serving clergy to be married and regards them as teams, the wife in the 'secular' supportive but never the less essential role. An executive in business or government is not required to be married, and if he is, his wife is not seen as connected to his duties. The issue of whether in a Christian setting and in the structure of the CCCS, women may be granted the sacred roles of the church, is more than a feminist issue; it has deep and ancient structural roots in the hermeneutics of Samoan culture.

The struggles of women in the church in Samoa means that what they must contend with not only introduced gendered notions within the CCCS organization and principles, but also the deep

structures that shape cultural notions of gender inherited from Samoa's past. It remains to be seen whether the CCCS will come around to the modern notion that a wife may have an identity and role that is separate from that of her husband. Unless women in the church (especially *faletua*) come to be seen as individuals (separate but still married to her husband), they will never be free from the mentality that a *faletua* is part of her husband's ministry, albeit in a subservient capacity.

The norms of Samoan villages and in the majority of Samoa's CCCS congregations, especially those in rural areas, the people adhere to the gender norms introduced by the church, that a woman's role and status is primarily socially defined by that of her husband. If the couple lives in the wife's village, she is simultaneously defined by marriage as well as by the rank and role of her own family, but in the church context, she is still defined as a wife. Perhaps a way forward for *faletua* can be found in two directions. First, for the church leading laity to specifically define the role expected of the wife of a *faifeau* (and guarantee her a pension should her husband predecease her), and second for training for this role to be provided by MTC. There has never been an education programme which caters to women of different backgrounds specifically for the ministry in Samoa today. Those who are married to an *a'oa'o* at Malua follow a loose curriculum emphasizing domestic skills which has changed little since the early nineteenth century. The lack of importance placed on a proper education of the *faletua* in Malua, that reflects the needs of today's changing society*,* is clearly indicative of a church that wants, overtly or covertly, to maintain sacred roles and their associated authority as the exclusive prerogative of men, as is the case in most religious systems worldwide, because that is seen as normal and morally correct.

Reference List

Board of Missions & Education 1861, *Children's Missionary Record of the Free Church of Scotland*. Edinburgh: London

Davidson, JW 1967, *Samoa mo Samoa,* Oxford University Press, Melbourne

Drummond, W 1842, *Report on Mission in Falealupo,* letter to Rev. Arthur Tidman, Foreign Secretary. London: LMS, Savai'I, 17 January

EFKS 2013. *Iloiloga o Iugafono Tumau*, Apia: Malua Printing.

Ete-Lima, MK 2003, 'A theology of the feagaiga: a Samoan theology of God', in L Johnson and JA Filemoni-Tofaeono (eds.), *Weavings: Women Doing Theology in Oceania.* Suva: ISP, University of the South Pacific.

Faatauva'a, R 1992, 'Samoan women - caught in culture change', *Pacific Journal of Theology* 7: 15-27.

Freeman, D 1983, *Margaret Mead and Samoa the Making and Unmaking of an Anthropological Myth*. Australian National University Press, Canberra

Frost, LA 2012, 'Talia talosaga Ropeti', *Samoa News*, viewed 7 March 2022 https://www.samoanews.com/talia-talosaga-ropeti-1

Garrett J 1997, *Where Nets Were Cast: Christianity in Oceania Since World War II*. Geneva: World Council of Churches, Suva: ISP, University of the South Pacific

Garrett, J 1982, *To Live Among the Stars: Christian Origins in Oceania.* Geneva: World Council of Churches, Suva: ISP, University of the South Pacific.

Gershon, I 2012, *No Family Is An Island: Cultural Expertise among Samoans in Diaspora.* London: Cornell University Press.

Gilson, RP 1970, *Samoa 1830-1900: The Politics of a Multi-Cultural Community*. Melbourne: Oxford University Press.

Grattan, FJH 1948, *An Introduction to Samoan Custom.* Apia: Samoa Print & Pub. Co.

Harbutt, G 1842, *Report on Mission in Saleaumua,* letter to Rev. Arthur Tidman, Foreign Secretary. London: LMS, Upolu, 16 March

Hardie, C 1842, *Report on Mission in Sapapali'i,* letter to Rev. Arthur Tidman, Foreign Secretary. London: LMS. Savai'I, 9 February,

Hau'ofa, E 2000, 'Epilogue: Pasts to Remember', in R Borofsky (ed.), *Remembrance of Pacific Pasts: An Invitation to Remake History,* Honolulu: University of Hawai'i Press.

Hills, E 1912, *Report on Mission in Malua District*, letter to Rev. Thompson, Foreign Secretary. London: LMS. Upolu, 3 January

Holmes, LD 1957, 'Ta'u: stability and change in a Samoan village', *Journal of Polynesian Society,* vol. 66, no. 3, pp. 301-338.

Holmes, LD 1987, *Quest for the Real Samoa the Mead/Freeman Controversy & Beyond*. Massachusetts: Bergin & Garvey Publishers.

Janes, CR 1990, *Migration, Social Change, and Health: A Samoan Community in Urban California,* California: Stanford University Press.

Keesing, FM & Keesing, MM 1956, *Elite Communication in Samoa: A Study of Leadership,* California: Stanford University Press.

Kramer, A 1902, *The Samoa Islands: An Outline of a Monograph with Particular Consideration of German Samoa: Volume I: Constitution, Pedigrees, and Traditions*. Translated by Theodore Verhaaren in to English, 1994. Auckland: Polynesian Press.

Latai, L 2015, 'Changing Covenants in Samoa? From Brothers and Sisters to Husbands and Wives?', *Oceania*, Vol. 85, Issue 1: 92-104.

Latai, L. forthcoming. *Covenant Keepers: A History of Samoan (LMS) Missionary Wives in the Western Pacific from 1839 to 1979.* Canberra: The Australian National University.

Meleisea, M 1995, 'To whom gods and men crowded: chieftainship and hierarchy in ancient Samoa', in J Huntsman (ed.), *Tonga and Samoa: Images of Gender and Polity.* Christchurch: Macmillan Brown Centre for Pacific Studies.

Meleisea, M 1987, *The Making of Modern Samoa*. Suva: ISP and Western Samoa Extension Centre, University of the South Pacific.

Meleisea, M, Schoeffel, P, Naseri, U, Leatio'o, K, Peseta Sio, G, Fitisemanu, T, Suafole, I, Tavale, T, Va'ai, I, Aveau, S, Salale, S, & Sione, G 1987, 'Old Samoa', in *Lagaga: A Short History of Samoa*, (eds.), M. Meleisea, & P. Schoeffel, Suva: University of the South Pacific.

Milner, GB 1966, *Samoan Dictionary.* London: Oxford University Press

Pratt, G 1862, *A Samoan Dictionary*. Malua: London Missionary Society Press

Pratt, G 1842, *Report on Mission in Saleaula*, letter to Rev. Arthur Tidman, Foreign Secretary. London: LMS, Savai'I, 1 December

Schoeffel, P 1995, 'The Samoan concept of feagaiga and its transformation', in J Huntsman (ed.), *Tonga and Samoa: Images of Gender and Polity*. Christchurch: Macmillan Brown Centre for Pacific Studies

Schoeffel, P. forthcoming. *Daughters of Sina: a study of gender, status and power in Western Samoa*. Canberra: Australian National University.

Schussler, FE 2011, *Transforming Vision: Explorations in Feminist Theology.* Minneapolis: Fortress.

Schussler Fiorenza, E 1998, *Discipleship of Equals: A Critical Feminist Ekklēsia-logy of Liberation.* New York: Crossroad.

Schussler Fiorenza, E 1984, *In Memory of Her: A Feminist Theological Reconstruction of Christian Origins.* Michigan, Crossroad.

Small, HEA 1967, *Papauta, the Inland Rock*. Auckland: Hilda Small.

Stephenson, L 2012, *Dismantling the Dualisms for American Pentecostal Women in Ministry: A Feminist Pneumatological Approach.* Boston: Brill, Leiden.

Tanielu, L. forthcoming. *O le a'oa'oina o le gagana, faitautusi ma le tusitusi i le a'oga a le faifeau : Ekalesia Faapotopotoga Kerisiano Samoa (EFKS) - Literacy education, language, reading and writing in the pastor's school : Congregational Christian Church of Samoa (CCCS).* Auckland: University of Auckland.

Tcherkezoff, S 2000, 'The Samoan category matai ('chief'): A singularity in Polynesia? Historical and etymological comparative queries', *The Journal of the Polynesian Society*, vol. 109, no. 2, pp. 151-190.

Tuiai, A. forthcoming. *The Congregational Christian Church of Samoa, 1962-2002: A Study of the Issues and Policies that have shaped the Independent Church*. Sydney: Charles Sturt University.

Turner, G 1861, *Nineteen Years in Polynesia: Missionary Life, Travels and Researches in the Islands of the Pacific*. London: John Snow, Paternoster Row.

Turner, G 1884, *Samoa, a Hundred Years Ago and Long Before.* Michigan: Macmillan.

Va'a, LF 2001, *Saili Matagi: Samoan Migrants in Australia.* Suva: IPS, University of the South Pacific.

Vaai, S 1999, *Literary Representations in Western Polynesia: Colonialism and Indigeneity.* Apia: National University of Samoa.

The 2008 Land Titles Registration Act (LTRA): A Case Study of Saoluafata

Tavila Tavila, Avele College Sāmoa

Penelope Schoeffel, National University of Sāmoa

Abstract

This article considers the provisions of the Land and Titles Registration Act, 2008, which made it possible to lease customary land in Sāmoa and to use the lease as security for a mortgage for capital development on the land. It addresses the development thinking that underlies the Act, the objections that have been expressed to it, and the problems that can arise in relation to leasing customary land when the custody of customary land belongs to many high chief (matai sa'o). To consider the public consultation process that preceded the passing of the Act, it presents a case study that outlines how local Sāmoan people understand the history of leases of customary land in the village of Saoluafata. The findings of this case study suggest that not only did they only have a vague understanding of the legality of past leases of customary land, but they did not fully understand the provisions of the 2008 Act. It exposes the inadequacy of the government's consultation process, and concludes that complex legislation needs a far more transparent and participatory process when changes are proposed that affect customary land and the traditional rights of Sāmoan people.

Keywords: Sāmoa, Customary Land Tenure, Land Titles Registration Act, Community Consultation

In 2008 the Government of Sāmoa passed the Land Titles Registration Act (LTRA). This article considers the provisions of the Act, the development thinking that underlies it, the objections that have been expressed to it, and the public consultation process. It presents a case study that outlines the history of leases of customary land in Saoluafata, and considers whether the Sāmoan people there understand the provisions of the Act affecting their customary land. The Act adopts the 'Torrens' registration of title system and permits the registration of public land, freehold land, and leases and licences of customary land. In the form presented in the 2008 version of the Act, it also allows "the registration of customary land in respect of which judgment has been made by the Land and Titles Court and replaced the 1920 Order and its subsequent amendment Orders" (Ye 2009: 62). Prior to 2008, Sāmoa had followed a Deeds Conveyance system where families (*'aiga*), if they registered their land at all, registered them under the title of their paramount titleholder of a lineage or group of connected lineages (*matai sa'o)* as the custodian of the land, not its owner (Iati, 2006). Since Sāmoa became Independent the Constitution of Sāmoa has permitted the granting of a lease or licence of customary land or taking of customary land for public purposes, under the authorization of an Act of Parliament. Accordingly, the Taking of Land Act 1964 and the Alienation of Customary Land Act 1965 provided for such lease, licence and taking of land. Other than these, the prohibition of alienation was absolute, which means that customary land could not be alienated to members of the family or other clans, and cannot be exchanged between customary landowners (Ye 2009: 75). Article 102 provides that there shall be no alienation or mortgaging of customary land.

As Ye, using a legal perspective explains it, the LTRA modified this provision by allowing for the mortgaging of customary land that is legally registered and leased under the new system of registration:

The most apparent and fundamental change is the adoption of the Torrens system. One of the purposes of the LTRA 2008 is to establish "ownership of interest in land by registration"; the folio is conclusive evidence of title; and the estate of the registered proprietor is paramount. Also entailed in Torrens indefeasibility is compensation by the government to persons who suffer loss or damage as a result of the operation of the Act, in contrast to the LRA 1992/1993 which specified that the Government was not liable for any loss or damage caused by the act, omission or default of the Registrar or the Registrar's subordinates (Ye 2009: 70).

Also that:

The fundamental shift to Torrens system as a general rule and the lack of clear provision raise three questions: first, whether the Torrens registration applies to adjudicated customary land; second, whether the registered customary land remains customary land or becomes freehold land; third, under whose name the land would be registered (Ye 2009: 84).

In effect, the LTRA allows customary land that has been leased to be mortgaged, using the lease a security. Due to a number of prominent critics of the legislation pointing out a lack of clarity in the provisions of the LTRA, it became a political issue. In 2019 the Ministry of Natural Resources and Environment, responding to parliamentary questions, said that all registration and licensing of customary lands have been removed from the Act, which "means that leases, licences and interests are now registered under the Principal Act. This clarifies that all matters pertaining to customary lands (leases, licences, and interest therein) are now under the mandate of the Principal Act as authorised by the Constitution" (Radio New Zealand 2018). By that time public consultations had already been completed and, as we will show, based on my Saoluafata case study, those public consultations on the implications of the LTRA were inadequate.

The Intention of the LTRA

Reforms aiming to reduce the size and cost of Sāmoa's public administration, promote efficient use of public finance, and encourage the development of the private sector, were commenced over 20 years ago with technical and financial assistance from the Asian Development Bank (ADB) and Australian Aid. Part of the agenda for these reforms in relation to private sector growth was to promote the economic use of Sāmoa's customary lands that are perceived as underutilized (ADB 2005: 32). Around 81% of total land or 2,820 sq. km according to Aus AID, (2008: 4) is customarily owned by extended families (*ʻaiga*) and their chiefs (matai). From this perspective land is an economic resource; therefore if customary land is not more extensively used for activities that contribute to the goal of economic growth, that goal is undermined. Economic growth, it is argued, is achieved by more investment in the production of export crops, construction of hotels and other tourist facilities, shops, manufacturing, and other income-generating activities and private sector services. Therefore more land is needed for these purposes (ADB 2005). At the launch of the Customary Land Advisory Commission (CLAC) in 2016, the former Prime Minister said "Sāmoa has more than half a million acres of customary lands and only 0.31% are leased out. He added, "81% of customary lands are under the care of the family chiefs (*saʻo*) and he encouraged the chiefs to consider the future of [their families] by developing customary lands" (Keresoma 2016: 1). The economistic view of land tenure argues that the benefits of making it easier to lease or even sell customary land will offset Sāmoa's reliance on remittances from Sāmoans living overseas (Pepper 2016), support its struggling tourism sector and improve agricultural exports. The

change as Ah Tong (2016) reported would create opportunities for Sāmoans to develop their lands and derive more benefits from them.

From a planning standpoint, Seumanutafa of the Planning and Urban Management Agency (PUMA), Ministry of Work, Infrastructure and Transport (MWTI) explained that the Act would eliminate one of the biggest areas of conflict over land boundaries (pers. comm. September 2020). It would allow the MNRE to map and identify boundaries of customary lands. Identifying boundaries has been difficult because Sāmoans used trees, rocks, and other land features as markers of land boundaries. The usefulness of these features is becoming obsolete as villages move further inland, closer to access roads. He added that the Land and Titles Court also faces problems to adequately deal with conflicts over land boundaries. With the LTRA, the government would be able to settle land boundaries before issuing a business license to a potential investor

In terms of infrastructure development, the LTRA would advance the connectivity of Sāmoa to ICT and other essential communication services. Leasing customary land to establish television and telephone satellite and other facilities would improve the delivery of these services throughout the country. Many families now receive rents of about SAT$ 500 per month for communication towers (although it is not clear how this income is shared within the families who own the land).

Criticism of the LTRA

Although in the tourism sector, the LTRA can boost foreign investment, there have been ongoing disputes over leases for tourism development. In one example, since 2007 Salaneta Lemalu's family has leased part of their land in the village of Lefaga to the Sāmoana Resort for 30 years after a long dispute about the rights and legalities involved (Keresoma 2016). In the dispute between *Return to Paradise Resort* and members of the Lemalu family of Lefaga (Feagaimaali'i-Luamanu 2018) several matai of the Lemalu family filed a successful petition to the Land and Titles Court to object to the leasing of land for the resort. However, another heir of the family challenged the matter in Court. The Appeal Court ruled that once the Minister granted the lease, the Land and Titles Court has no power to cancel it (Elisara 2019). There have been rumoured concerns about the lack of transparency over the distribution of lease payments in another case where the village council of Sasina leased lands in 2008, one lease is a 100-year lease with the South Pacific Development Group (SPDG) based in Hawaii, allowing 600 acres of customary land to build the Sasina Village Resort. The agreement: the village gets $120,000 US each year for the first five years and a 10% increase every five-year period thereafter. "All is secured when it comes to the Sasina Resort project even though there has been no physical development Sasina village is still receiving lease payments." (Government of Sāmoa 2018), according to the then Member of Parliament for the local electorate. The other Sasina lease is for 120 years, signed in 2017 with a Hong Kong-based Kiu Hang International Holdings Limited to use 100 acres of land for a commercial Noni (*nonu*) plantation. Accordingly, "the lease plan of 120 years is "subdivided into 30-year sections so the village will have a safety valve, because they cannot live for 100 years and whichever generation will come around at that time they will have to decide on whether to continue the lease or not" (Fanene 2019). The village had received pay-outs of SAT$250,000 in September 2017, March 2018, and 2019 (Fanene 2019) but the arrangement for sharing of this revue is unknown.

As Iati (2016: 4) has argued, the LTRA does not guarantee the integrity of the registration process. The Act gives the Registrar "wide discretionary powers to manage the system" and it does not provide

appropriate checks and balances for this role The Registrar would have "discretion in the Bill to make changes to the Folio, a record of interests on a particular piece of land, at any time with or without notifying and affirming that changes were made with the concerned parties". The Act also holds those managing the system unaccountable that, "the Ministry shall not be liable to any action or proceedings for or in respect of any act or matter done or omitted to be done in good faith. (SUNGO. 2008). While the former Prime Minister of Sāmoa has publicly stated that the Act would only affect freehold and public lands, Iati (2016) and Ye (2009) have found inconsistencies in what he said in public and what is written with regards to which lands will be affected. This inconsistency and many others only breed further mistrust in legal processes and in the intentions of the government.

With the Act coming to effect from March 2009, it is assumed that registration of a lease is contingent of consent for the lease, resulting from approval by the highest ranking chief (*sa'o*) of the land-owning *'aiga*, and that the *sa'o* has secured a customary consensus from them. But this will likely be problematic if there a many holders of the *sa'o* title, or when these the right to hold a *sa'o* title via ancestral connections are disputed in the Land and Titles court (Meleisea 2018: 61). As the consultations on the authority of the matai *sa'o* by the Sāmoa Law Reform Commission (2017) have demonstrated, this often results in no agreement being reached, land becoming in effect 'no man's land' as the right to use it cannot be agreed upon. Decisions by the Land and Titles Court are often arbitrary when the evidence before them is contradictory. This results in at least one branch of a family being aggrieved, with further negative consequences. As Ye pointed out in a critical review of the legislation (Ye 2009: 62) the LTRA may introduce uncertainties about rights to approve leases and ownership of customary land. In fact it has been Sāmoan custom since ancient times that the sa'o is custodian of family land, but not its owner, and it was also customary to avoid questioning the authority of a matai *sa'o*. However as Meleisea described (1987), the 19th century civil wars in Sāmoa involved large scale 'selling' of customary land to foreign land speculators at a time when the concept of permanent alienation of land was unknown to most Sāmoan leaders. Nowadays land has considerable monetary value and many *Sa'o* titles have multiple holders, so, as Meleisea and Schoeffel (2022) explain:

> *A practical obstacle to the implementation the LTRA is the question of who has the traditional authority to approve a lease of customary land. … A sa'o title is usually derived from the name of a founding ancestor or event deep in the mists of time associated with an ancestor, referred to in the fa'alupega or ceremonial greeting speech of the village to which it is ancestrally associated. Each village may have one or less often two such titles of the highest rank. A matai sa'o has authority over members of his, or less commonly her, lineage and also over holders of lesser titles derived from that lineage. The matai sa'o is a trustee of family property, not its owner. The powers of the sa'o over land have diminished considerably since the 19th century and when exercised may result in an appeal to the Land and Titles Court. … The power of the matai sa'o is an extremely vexed question in today's Sāmoa. To become legal, a lease agreement on customary land requires the consent of registered holder or holders of the matai sa'o title who have authority (pule) over it. Nowadays a sa'o title may have two or twenty or more holders, but rarely one holder. Some of the co-holders of a sa'o title may be living in Sāmoa, others abroad but all those who are registered as sharing a title must agree to a lease of the land appurtenant to their title if it is to be legal, even supposing that there was agreement about the exact location and the extent of such land, which there rarely is.*

Sa'o titles are not only often divided among many holders, but are often held by people living in different countries. As the transnational matai research team (Anae and Peterson. 2020) has shown, the responsibility of the holder of a matai *sa'o* living overseas has less to do with the village it belongs to, and more to do with leadership in overseas church communities and with organising and binding together members of the *'aiga* living overseas. However when a major issue concerning the land, titles or traditional status of the family arises, all the *sa'o* are expected to agree on interests of their various branches of the *'aiga*.

Land and Cultural Values

The role of the *sa'o* means greater responsibility and accountability when economic development has implications for customary land. In contrast to the economistic view of land is the indigenous Sāmoan perspective held by many Sāmoans, including those living overseas, which sees their ancestral land as the core of their identity (*fa'asinomaga*) and long term family security. As Ta'isi (2008) explains, Sāmoans have deep connections with their land through the ritual of "disjointing of the umbilical cord (*pute*) and burying it in the land. A symbolic ritual that connects peoples and the land thus the Sāmoan saying: "*O le tama* [*teine*] *o le eleele*" (The child, [boy or girl] of the land). This relationship stands for a genealogical connection between people and the land as well as their boundary (*tuaoi*) with land to care and to look after. This is an ancient Sāmoan reference of being, knowing and belonging and one cannot ignore. Elisara (2017: 35) describes land in this way – "Land means everything to Sāmoa, more than money can ever buy. There are spiritual and cultural connections between land and people. Land is one's identity; it is one's existence; it is our birth right." To land in the Sāmoan culture is regarded as an inheritance from God and connected intimately to the matai system. The fear is that if the land is lost so will the matai system, hence also the culture of Sāmoa (Meleisea and Schoeffel, 2015). Overseas Sāmoans remit money to their families in Sāmoa not just from the obligation to them, but also to mark their rights as members of a family in customary villages and to customary land.

Case Study of Saoluafata

This section will summarize findings from Tavila's field study of Saoluafata in 2020, a traditional village (*nu'u mavae*). This research aimed to find out how much the people there knew about land laws and land rights, as Saoluafata has a history of leasing its land since the early colonial period. Tavila's survey was based on '*talanoa*' methodology which "… can be referred to as a conversation, a talk, an exchange of ideas or thinking, whether formal or informal" (Vaioleti 2006: 23). His conversations (*talanoaga)* were with 16 people selected from different families, and because he is of the village himself, he excluded members of my own family there.

In Sāmoa, a village (*nu'u*) refers to a settlement and its surrounding lands and sea under the collective governance of a council of matai. The village council (*fono a matai*) is the village decision-making forum, the main institution in the village, whose members consists of matai who represent their families. Unlike most other villages in Sāmoa, Saoluafata has a Women's Council (*Nu'u o Tamaitai*) that operates like the matai council on the basis of traditional rank and status. Its members consist of married and unmarried women (*tamaitai o le nuu*) who are daughters of the village. Women who married into the village (*nofotane*) from other villages belong to the Women's Committee (*Komiti a Tina*). The latter is a service group that is in charge of the general health and hygiene programs of the village, among other things, under the guidance of the Women's Council.

Figure 1: Map of Samoa

Source: Ministry of Natural Resources and Environment

Historically, each *'aiga* in Saoluafata today trace their ancestral roots to two paramount chiefly families – Tagaloa and Sagapolutele. Initially, Tagaloa and his families occupied the north side of the village while Sagapolutele took the southern end at the time when the population of the village was small. Over time however, the population of the village grew in numbers, and some members of each family intermarried and occupied other village lands without following the north-south divide.

Of 33 matai titles in the village; 16 of these titles trace their roots to Tagaloa and the remaining 17 to Sagapolutele. Each of these matai titles are the heads of individual *'aiga*. (My research on Saoluafata chose eight *matai* titles for interview from each paramount chiefly family).

Table 1: Matai titles of Saoluafata

TAGALOA	SAGAPOLUTELE
Aigamaua	Afesulu
Asomua	Afuvai
Fu'e	Evaimalo
Itaifaleupolu	Faamau
Leumu	Faautagia
Loau	Fotanu
Malaulau	Letua'a
Malofie	Nuualiu
Manuipulotu	Paleaae
Mao	Pimoe
Mosogau	Safiki
Mulitalo	Seumalo
Pauu	Sua
Tanoi	Taamai
Tele	Talataina
Vaivao	Tamaupolu
	Toilolo

Source: Tavila 2020.

According to census data (SBS 2017) there are 120 households in total in the population of Saoluafata. There were 829 people, and of the 510 villagers aged 15 years and above, 232 have completed secondary and 98 tertiary levels of education while the 180 have no qualification (SBS 2018: 13). When the census survey was conducted in 2016, there were 105 villagers in paid employment, and 12 households operating different types of small businesses, while 107 were earning a living from

fishing and farming. The Manunu inland road, now newly sealed, has had positive economic impacts by improving access to farmland as most families rely on semi-subsistence agriculture and fishing for a living. Most receive remittances, both in kind and cash from relatives residing in Apia and abroad. Remittances have enabled most families to live in enclosed houses build from permanent materials (*fale palagi*) and most have access to piped water and flush toilets. At the time of my fieldwork Saoluafata did not have any people travelling overseas as seasonal workers.

Understanding of Land Tenure

For a long time, Saoluafata has also been leasing and gifting land in the interior of the village territory, in the area called Solaua. While the people of Saoluafata know and/or have heard of Solaua, their understanding of the term of these land leases varies. Except for the land on the coast that the village gifted to the Congregational Christian Church of Sāmoa, and it is now freehold, the rest of the land is customary. However, as will be shown, the participants in this study have different understandings of what is meant by 'customary', 'freehold' and 'leasehold'. They know that all land (and associated matai titles) belongs to the village and that unwritten village laws govern decisions of the village and maintain law and order. They believed such that bylaws also protect land of the village from alienation, using the phrase, "*O tu ma agaifanua*" (local traditions and customs) to explain that land and matai titles are treasures of the village. They also offered different descriptions of the territory of Saolufata. Some described the size of the land of the village as It begins from the reef to the ridge ("… *e amata mai i le aau se ia oo i lalo o mauga*") while pointing to the sea and then to the mountains behind the village. Some used the borders with other districts as points defining the boundaries, Falealili bordering the South, Solosolo to the west and Falefa. And most said that the village has a lot of land ("*e tele fanua o le nuu*") but that the exact area was unknown so to be more exact the village council has been considering a plan to have its lands surveyed and to avoid new cases before the Land and Titles Court over land boundaries.

Land belongs to three general categories, residential areas, farmland, and leased land. The greater part is farmland planted with root crops and in recent years fenced for cattle farms, in an area of high soil fertility called Li'uli'u where all families have customary access to land. Solaua is the collective name of these parcels of land inland that the village initially leased to the Germans for their rubber plantation and later to Sāmoans who are not from Saoluafata. According to an estimate by one participant in my survey, the area of Solaua is 5,530 acres of which the Tagaloa family has 2,300 acres and the Sagapolutele family has 1,400 acres. While participants understand these categories of land use, the boundaries between each are not fixed. Participants often referred to physical features – a hill, a bush, where the tar-sealed part of the road ends, or an old tree – as markers to estimate the boundaries between these categories.

While the participants in my survey understood that their village had leased land in the past, they have varying recollections and details of these arrangements. They mentioned of the terms, 'old' leases (*lisi tuai or lisi ua leva*) in the time when the Germans were in Sāmoa. (This refers to the pre-colonial period of the 1870s to 1899 and when Sāmoa became a German colony, 1900-1914). They were able to identify recent leases (*lisi fou*) from old, but few had a broader understanding of the details of the conditions of these leases or the benefits derived from them.

Initially, the village leased land at Solaua to a German Rubber Company called Sāmoa Kaustkluck Companies (SKC) in the mid-1800s which, according to three of my informants, was for 40 years. One of them said that the rubber plantation also drew other businesses to lease land at Solaua: "O.F Nelson also leased a piece of land of Pauu family for his store. If you look at the location of this lease, it faces the road to where the German had their *pulu* [rubber] plantation." In the opinion of another, a 69 year old businesswoman said that:

> *"... there are lots of freehold lands in the village but they are not registered, even this land where we live on is not customary. We don't know how the palagi [Europeans] negotiated the buying of this land from our family matai. My grandfather bought this land from a palagi and we have all the documents"*

The parcels of land claimed as freehold originated from when German settlers bought a piece of land from a matai in the village and later resold it to the original sellers. Some pointed to freehold land called Sauniatu that was once a part of Solaua. According to some, the village gifted it to a matai, Lealaisalanoa in the neighbouring village of Falefa as a token of their appreciation for his support towards a court case that the village had in the past. In turn, Lealaisalanoa sold parts of that land to the Church of Jesus Christ of Latter-day Saints (LDS) and a village established by that church still occupies the land. However, some of those whom I interviewed said there is no freehold land other than the land given to the Congregational church, which is registered. Only few old people of these families understood the history of how these lands became freehold, if they did, and it is possible that documentation may not exist. Some participants believe that there are ongoing cases before the Land and Titles Court on ownership issues relating to these lands.

It is generally believed that when the Germans left Sāmoa, the holders of Tagaloa and Sagapolutele titles began to lease land in Solaua to people from other villages. Business people were also recipients of these leases, according to one participant, a 58-year old entrepreneur. One elder said that a previous holder of the Tagaloa title (Tagaloa Tuiuli) approved the first lease of village lands in 1904. Details of these leases are unknown to these participants. Besides the Germans, there were other leases awarded to Sāmoans who are not from Saoluafata. These 'old' land leases have varied areas, fee structure and terms. It was said that one outsider leased the largest section of land for 5 years (975 acres) at 200 pounds annually, and that leases to two others of 38 acres at 38 shillings, and of 147 acres at 7.7 pounds per annum were given for a term of 14 years each. Although the leases are thought to have expired, families (children, grandchildren and other relatives) the last two continued to occupy the land up to the present time, with the approval of the Village Council according to several survey participants. Instead, on money these tenants pay the village in-kind through the produce of the land whenever the village asks. For example, one holder of 83 acres leased for 99 years, like several others, is paying the village in-kind. The opening of the upgraded Manunu Road at Saoluafata at the time of fieldwork in 2020 illustrates these unwritten, yet recognized land 'lease' arrangement with these 'tenant' families at Solaua, who provided ceremonial and traditional gifts for the government and donor representatives at the opening ceremony. Their contributions were in the form of cattle, sacks of taro, bundles of bananas and cash for the event. Another instance was described by a participant concerning a local businessman from Saoluafata who leased 872 acres for 20 years in 1953 at 100 pounds per annum, since renewed at WST$12 tala per acre or WST$10,464 yearly, and according to one informant, this leaseholder is the only tenant who pays the *sa'o* in cash. Because the

land at Solaua belongs to Tagaloa and Sagapolutele, according to one informant the two *sa'o* have an informal system of sharing the proceeds of the leases.

Provisions of the LTRA

While participants undoubtedly understand the existence of the three types of land tenure – freehold, state owned and customary but 15 participants said they knew little about the provisions of the LTRA. Most incorrectly assumed that the LTRA 2008 is the same as the three Acts (Electoral Amendment Act 2020, Constitution Amendment Act 2020 and Judicature Act, 2020), which have recently been a point of political controversy in Sāmoa, passed into law on 15 December 2020. These new laws separate the civil and criminal courts of Sāmoa from the Land and Titles Court into two separate institutions (Meleisea and Schoeffel, 2022). The village council agreed to the public consultations held in the village on this legislation held by the Parliamentary Select Committee before they became law. This indicated the degree of public confusion. Typical responses from participants when told that the LTRA was a different law, was that:

> *"... contentious matters like this [land registration under name of a sa'o] especially when involve lands the village council should ring bells and sound conch shell (foafoa)to inform the village that they need to attend the consultation."*

> *"… sometimes it is only when people know that they are going to receive money and/or food then they will decide to go to those meeting and they don't take matters critically. Whoever knows about this Act or went to a consultation must inform the village."*

Recent leases were generally approved of by the survey participants. One is the 2005 lease of a small area of land for a Digicel communication mast, for a rent of WST$2,000 annually, plus WST$500 a month to the land owners for keeping the road up to the mast cleared. Another lease is to the Sāmoa Meteorology Office for a small station, but according to one participant, the owner was still negotiating conditions of the lease, although it had been there for the past six years. A participant who leases his shop to a Chinese shopkeeper said it was of benefit to him and the village, creating employment and services that saved people a trip to town. The lessee was happy with the arrangement as he had experienced difficulty running the shop himself and now earned WST$5,000 per month from the leaseholder. Most thought that if families and the village agreed to lease land, it should be inland where the old leases were, not where people live, near the village centre and close to the coast. Otherwise, participants were not worried about the LTRA because their perception is that the village has leased land for a long time and not 'lost' any land; although some said that they thought that the village should always have legal advice on the terms of any future leases under that law.

The exception to their approval was concern about the registration of customary land under the name of an individual *sa'o*, because the *sa'o* has control over the use of their land without necessarily seeking the agreement of the family and could potentially abuse his power under the new Act. As Iati (2016) pointed out, under the LTRA 2008 a matai *sa'o* could sign a lease or lease customary land for a period that extended beyond the signatories' lifetime, which may deprive their successors of any rights over this land. While the *sa'o* of Saoluafata seem to have agreed to have 'old' leases continued,

members of their 'aiga cannot exercise their ownership rights during the period of the lease, unless parties agreed to terminate. Would that not be a form of alienation?

There is also an issue relating to the manner in which 'tenant' families pay the village for their use of 2,115 acres of land for over a long period. Contributing bundles of taro or a cow now and then is insufficient given the productive potential of the land. Therefore, a strict reading of these facts suggests that people belonging to Saoluafata 'aiga have indeed 'lost' the opportunity to use over 2000 acres of land for generations at a time when coastal areas are affected with erosion due to climate change and may need to relocate inland in the future.

Lack of Adequate Consultation

The earlier public consultation on the LTRA for Saoluafata was for the whole Anoama'a district and took place at the village of Solosolo. Five representatives of each village in the district attended this consultation but those from Saoluafata apparently did not share their opinions of it with others, and as one participant said, the village should have been informed about it. It seems likely that those attending did not really understand what it meant, which is why they did not explain it to their community. It was clear to me that the participants all had only vague understandings of land law. As Iati (2018) commented, holding consultations on the LTRA at district level was inadequate and the goal of wide and inclusive consultations as noted in the Customary Land Advisory Commission Act 2013 was not achieved (Iati 2018). The consultations did not include all customary landowners, but only a few representatives of chiefs and council members (ali'i and faipule) of a village. As Elisara (2018: 3) argued that, "Clearly the number of people 'consulted' fails miserably the test for meaningful consultation." In response to a complaint by Malifa et al. (2014), the ADB Office of Special Project Facilities carried out an investigation visit in Sāmoa between 1 November and December 2014. The team found that less than 10% of people they interviewed knew that there was a project to increase the economic use of customary land in Sāmoa, despite a series of ADB Technical Assistance projects to achieve its aims in Sāmoa. Iati (2018) was also concerned that members of staff at MNRE, the government ministry responsible for the administration of the Act, appear not to know the law and that consequently, they apply it inconsistently. He claimed that some members of MNRE staff still entertain challenges by some matai concerning land leases that already been finalized. Malifa et al. (2014) pointed to the same challenge but also added that the lack of consultations in all three phases (ADB 2014) of the project (LTRA 2008) is obvious. How can the government expect villages to understand the Act when government officials have a different understanding and application of it?

Flawed consultation processes explain why some important reforms and initiatives rolled out by the government do not get the desired outcomes. In the case of the LTRA 2008, inclusive and meaningful consultation as one would hope for did not take place. The representatives of Saolufata did not report to the village council what took place at the Solosolo consultation, which exposes what appeared to be a casual attitude of government when rolling out consultations on the Act. Furthermore, the approach to consultation was flawed. Can a village of 829 (2016) people be adequately were represented by five male matai especially given the complex legal provisions of the LTRA? As one participant put it: "Ali'i and faipule discuss and approve issues at the village council that hardly filter down to us. We should know about it as well as other development projects and plans by the government because they attend village meetings."

While the LTRA 2008 is the outcome of a project that aimed to alleviate poverty and generate economic growth through the commercial use of customary lands, the processes the government used to bring this about did not reflect the importance it deserved. To pass an Act without ensuring a clear understanding of the people who may be affected deprives them of their right to a fair, transparent and just consultation process and may breed distrust of government. While Faleauto (2018) emphasized the need for the government to reach out to all groups, the limited consultation processes for the LTRA 2008 exposed the need for genuine consultation processes.

Conclusion

The government maintains that the economic use of 81% of Sāmoa's land currently under customary ownership is the solution to the country's economic challenges. It has been possible to lease customary land, or take it for public purposes since Sāmoa became politically Independent under the Taking of Land Act 1964 and the Alienation of Customary Land Act 1965. The difference created by the LTRA 2008 is that it introduced the Torrens system, which as Iati and Ye (previously cited) claim could be interpreted to allow customary land, when registered, to become freehold. The fact that 94 percent of the participants in my Saoluafata study knew little to nothing about the details raises issue about the extent to which the LTRA empowers the *sa'o*. In July 2012 the Sāmoa Law Reform Commission circulated a discussion paper arising from community consultations on the "authority of a principal chief (*sa'o*)" which was clearly related to the requirement that a lease of customary land must be signed by all persons holding the *sa'o* title appurtenant to the land being leased. In Saoluafata the two highest titles have so far not been split, but it as previously discussed, it is common for *sa'o* titles to have two or more holders in other villages. The SLRC proposed to limit the holding of *sa'o* titles to persons who mainly reside in Sāmoa, and to limit the number of sa'o that may be appointed, and the uses of lease income, perhaps to place in a family trust. These are recommendations that require far more discussion and consultations, but would reduce the possibility of abuse of power by the *sa'o*

References

Ah Tong, LT 2016, 'Government: pushes economic use of customary land', *Samoa Observer*, 06 October, http://www.samoaobserver.ws/en/06_10_2016 /local/12356/Govt-pushes-economic--use-of-customary-land.htm

Anae, LMM & Peterson, SI 2020, *A handbook for transnational Samoan matai (chiefs). Tusifaitau o matai fafo o Samoa.*

Asian Development Bank 2014, *Independent State of Sāmoa: Promoting Economic Use of Customary Land, Phase II and III and Sāmoa Agribusiness Support Project.* Manila: Asian Development Bank. Viewed 27 November 2020 https://www.adb.org/sites/default/files/page/42458/sam-monitoring-report-9feb2017.pdf

Asian Development Bank, 2005, *Technical Assistance to the Independent State of Sāmoa: Promoting Economic Use of Customary Land.* (ADB Technical Assistance Report 37234). Asian Development Bank, Manila. Viewed 14 June 2020 https://www.adb.org/sites/default/files/project-document/68694/37234-sam-tar.pdf

AusAID 2008, 'Reconciling customary land and development in the Pacific: Australia Agency for

International Development, Canberra', *Making Land Work Volume 1.* Viewed 18 October 2020 https://www.dfat.gov.au/sites/default/files/MLW_VolumeOne_Bookmarked.pdf

Elisara, FM 2017, 'Colonial dictate on Customary Lands is too much for Sāmoa and Pacific Governments', *Sāmoa Observer*, 4 September 2017, viewed 27 June 2020 https://www.Sāmoaobserver.ws/category/columns/28216

Elisara, FM 2018, 'Law, Custom and Constitutionalism: Customary Land Tenure in Sāmoa', *Sāmoa Observer*, 19 February 2018, viewed 28 July 2020 https://www. Sāmoaobserver.ws/category/columns/7778.

Elisara, FM 2019, *Submission on alienation of customary land: After Three Years of Customary Land Legislation Reviews,* Samoa, Apia.

Faleauto, M 2018, 'Tricky devices and Sāmoan Customary Land', *Sāmoa Observer,* 20 May 2018, viewed 18 March 2020 https://www. Sāmoaobserver.ws/category/columns/8545.

Fanene, D 2019, 'Sasina receives payment of $250,000 from the lease of their customary land', *Sāmoa Global News,* 18 July 2019, viewed 24 March 2020 https:// Sāmoaglobalnews.com/sasina-receives-payment-of-250000-from-the-lease-of-their-customary-lands/.

Feagaimaali'i-Luamanu, J 2018, 'Court says resort's land lease binding, Land Titles Court has no Jurisdiction', *Sāmoa Observer,* 9 December 2018, viewed 14 May 2020 https://www. Sāmoaobserver.ws/category/ Sāmoa/8820.

Government of Sāmoa 2018, *Sasina village inks new multi-million tala.* Apia Samoa Facebook. Viewed 15 October 2021 https://m.facebook.com/ Sāmoagovt/posts/sasina-village-inks-new-multi-million-tala-land-lease-press-secretariat-the-land/1745241435506871/?locale=de_DE

Iati, I 2006. *Controversial Land Legislation in Sāmoa: It's not just about land.* Viewed 15 September 2020 https://devnet.org.nz/wp-content/uploads/2018/07/IatiIati.

Iati, I 2016. *The implications of applying the Torrens system to Sāmoan customary lands: alienation through the LTRA 2008.* Viewed 4 October 2020 https://www.researchgate.net/.../316134686_The_implications_of_applying_the_torrens

Iati, I 2018. *Commercialisation of customary land in Sāmoa: A Report.* Dunedin: University of Otago.

Keresoma, L 2016, 'Sāmoa PM encourages customary landowners to use land for commercial Benefit', *Talamua,* 10 May 2016, viewed 29 May 2020 http://www.pireport.org/articles/2016/10/05/ Sāmoa-pm-encourages-customary-landowners-use-land-commercial-benefit.

Malifa, TL, Lameta, KL, Saifaleupolu, ST & Elisara, FM 2014, *A letter of complaint to ADB*. Viewed 3 November 2020 https://www.adb.org/sites/default/files/page/42458/complaints-sam-matais-sep14.pdf.

Meleisea, M 1987, *The making of modern Sāmoa: traditional authority and colonial administration in the modern history of Western Sāmoa.* Suva: University of South Pacific.

Meleisea, M, & Schoeffel, P 2015, 'Land, customs and history of Sāmoa', *The Journal of Sāmoan Studies 5, No 2: 22-33*. Viewed 28 August 2020 http://journal. Sāmoanstudies.ws/wp-content/uploads/2015/12/Vol5_2.-Land-Custom-and-History-in- Sāmoa.pdf.

Meleisea, M 2018, 'Authority of the Matai Sa'o in Contemporary Sāmoa: At Home

and Abroad', *The Journal of Sāmoan Studies 8: 60-63.* https://journal.
Sāmoanstudies.ws/2019/05/23/authority-of-the-matai-sao-in-contemporary- Sāmoa-at-home-and-abroad/ (Accessed 19 September 2021).

Meleisea, M, & Schoeffel, P 2022, 'Sāmoan Custom, Individual Rights, and the Three 2020 Acts: Reorganizing the Land and Titles Court', *The Journal of Pacific History.*
https://doi.org/10.1080/00223344.2022.2058475

Ministry of Natural Resources and Environment 2019. *Annual Report 2018- 2019.* Apia Samoa:
https://www.mnre.gov.ws/wp-content/uploads/2020/01/FINAL-AR1819-English-Version-as-of-14-Jan-2020.pdf (Accessed 28 November 2020)

Pepper, F 2016, "An end to Sāmoa's reliance on remittances? ABC." Viewed 15 September 2020
https://www.abc.net.au/radionational/programs/themoney/an-end-to- Sāmoas-reliance-on-remittances/7516308.

Radio New Zealand 2018 "Sāmoa village payments for customary land leases queried."
Viewed 12 March 2018
https://www.rnz.co.nz/international/programmes/datelinepacific/audio/2018640375/
Sāmoa-village-payments-for-customary-land-lease-queried

Sāmoa Bureau of Statistics (SBS) 2017, "Population and Demography." Viewed 26 November 2020
https://www.sbs.gov.ws/population

Sāmoa Bureau of Statistics (SBS). 2018. "Fa'amaumauga ma Fa'amatalaga oTagata o le Itumalo o Anoama'a i Sisifo." Viwed 27 November 2020 https://www.sbs.gov.ws/population.
(Accessed 27 November 2020).

Sāmoa Law Reform Commission 2009, *Annual Report 2008-2009. Legislative Assembly of Sāmoa*.
Apia Samoa: Sāmoa Law Reform Commission. Viewed 28 November 2020 https://www.
Sāmoalawreform.gov.ws/wp-content/uploads/2014/08/Annual-Report-2008-2009
English.pdf.

Sāmoa Law Reform Commission. 2017. *Pule a le Matai Sa'o Final Report (FR 18/17).* Government of Sāmoa.

Sāmoa Umbrella of Non-government Organisations 2008. *"Land Bill UnSāmoan." Sāmoa Observer,*
10 March.

Schoeffel, P, Meleisea, M, and Arthur, T 2021, "Land and social security in Sāmoa" pp. 104-10 in
Pamela Thomas and Meg Keen eds. Perspectives on Pacific Security: Future Currents.,
Canberra, Development Bulletin No. 82, Australian National University, Canberra.

Seumanutafa, K 2020. per. comm. 20 September 2020.

Ta'isi, TT 2008, "Sāmoan Jurisprudence and the Sāmoan Lands and Titles Court: The perspective of
a litigant" in *Su'esu'e Manogi: In search of fragrance* eds Suaalii, S., Tofilau, N., Fuamatu, N.
and the Sāmoan Indigenous Reference. The Centre for Sāmoan Studies, National University of
Sāmoa, Apia.

Vaioleti, Timote Masima 2006, Talanoa research methodology: A developing position on Pacific

Ye, R 2009, "Torrens and customary land tenure: A case study of Land Titles Registration Act 2008 of
Sāmoa." *Victoria University of Wellington Law Review* 40(4): 61-102. Viewed 27 October
2020 Doi: http://lawlib.wlu.edu/CLJC/index.aspx?mainid=766&issuedate=2010-07-

Rethinking the health system in Samoa: building on past achievements and the search for new perspectives

Viali Lameko, Oceania University of Medicine, Samoa

Abstract

This article reviews evidence to identify gaps and explore opportunities for improving the health system in Samoa, and searches for new perspectives to mitigate threats to the health of the people in the near future. It proposes that the health system should prioritize health education programs in community and schools, conduct diagnostic screening programs, and advocate for laws and policies that directly address endemic non-communicable diseases (NCDs) in Samoa. The health system in Samoa was once community-based but is now hospital-based. The shift had been driven by the high prevalence of non-communicable diseases among its adult population, such as heart attacks, strokes, obesity, diabetes and hypertension, requiring the attention of medical doctors who mostly work in the capital city of Apia. The emphasis on doctors, hospitals and technology while cutting back community-based preventative programs over the past few decades was a mistake. Consequently, Samoans are dying prematurely from these non-communicable diseases. Efforts by the Samoa Ministry of Health and development partners to reverse the trends have produced no clinical evidence of success. In addition, the field and discipline of public health has received less and less attention and hence fewer resources over the past few decades. Funding also affects health services and financing the health services in Samoa continues to increase over the past few decades. One of the greatest challenges faced by researchers is the difficulty with finding data and published articles about the health of the Samoa people. Even more worrying is a lack of evaluative reports documenting the results of the activities already being implemented. Without such studies it will be difficult to design evidence-based policies and strategic plans appropriate and relevant to the issues identified.
Keywords: Samoa, Health system, Public health, policies

Introduction

The World Health Organization (WHO) defines the six building blocks for a health system in any country, regardless of the level of its economy. These building blocks include (1) strong governance (accountability and transparency) and leadership, (2) transparent human resource management, (3) stable financial support and management systems, (4) a workable information and technology system including a surveillance system, (5) optimal clinical and public health services, and (6) efficient procurement of commodities and medicine (World Health Organization 2007). Although much debate had been published concerning their holistic application to evaluation of specific interventions on health systems, it still stands as a valuable tool to create a common language and shared understanding among the health workers anywhere in the world. (Mounier-Jack et al 2014). As declared in the WHO constitution all individuals have the right to the highest attainable standard of health, and governments have the overall responsibility to improve the health of their populations by providing adequate health services and equitable social measures (WHO, 1978). The WHO Commission on Social Determinants of Health has posited too that, the ill health of the poor, the social gradient in health within countries, and the marked health inequities between countries are caused by the unequal distribution of power, income, goods and services, both globally and nationally (WHO, 2008). Hence, the onus is on each country to develop and implement laws and policies to ensure the whole population benefits from these rights to health.

Health is created and lived by people within the settings of their everyday life. Where and when they spent most of their time during the day or night, either at home, school, work, social gatherings, sports facilities, and religious places. Health may therefore be created by both individuals and peoples living in a specific geographical environment and hence to control the circumstances and conditions within it to ensure everyone cares for one another to attain heath for all members (WHO 2012). However, a person's health and wellbeing is also influenced by other factors outside of their communities, workplace or school, such as the socio-economic status of the country, urbanization and urban planning, globalization, water and sanitation, food supply and food and beverage industries, to name but a few (Lameko 2020). Health is then defined by the WHO as a "dynamic state of complete physical, mental, and social wellbeing, not merely the absence of disease state" (WHO 1978). The ultimate goal is for every citizen to have equal access to health care services and public health activities regardless of their level of education, socio-economic and community status.

The forecast population of Samoa for 2022 is 202, 241 persons with approximately 48.24 % female and 51.76 % males. Approximately 40 percent of the total population comprises young people less than 15 years of age, giving a median age of 21.8 years, with 6 % aged 65 years old and more indicating a growing population (World Bank 2020). Today only about 60% of the population live in traditional villages; urban settlements have grown around the town of Apia with no effective local government (Samoa Bureau of Statistics 2017).

History of the Health System Models in Samoa

The health system in Samoa had long adopted the universal coverage model of health. Although it had undertaken a lot of changes over the previous eight decades, but the overall goal is to provide the basic health care to all the citizens (Schoeffel 2016). The early health activities, which goes way back to the 1940s and had continued on until the late 1970s, involved the provision of basic medical and nursing care such as the treatment of common infectious diseases, surgical procedures, and administration of vaccination to children, providing home care for the elderly and those with chronic diseases, school programs with a focus on infectious diseases and dental care, and the provision of ante-natal clinics for pregnant women. Also during this period of time, Samoa's health system had relied on hundreds of village women's committees throughout Samoa, called Women's Health Committees (WHC) to promote disease prevention, each serviced by a district public health nurse who met with the committees monthly to hold maternal and child health clinics and sanitation inspections. Such a partnership had allowed for the WHC members to work with the health care workers (HCW) working at the district health centre to implement a lot of community health activities (Schoeffel 2016).

By the 1970s monthly village health talks by the district nurses included advice on nutrition using health messages formulated for the Pacific Islands region by the South Pacific Commission (now the Secretariat of the Pacific Community). However in the early 1980s the women's committees were slowly being de-linked from the public health nursing services in the Ministry of Health to support a broader agenda for 'women in development'. The policy changes in health services meant that nurses no longer went out to villages (except in the case of special programs); instead people in villages sought advice and treatment from the nearest health centre or district hospital, or if they had the

means to do so, went to the outpatient clinics at the main hospitals on Upolu and Savaii (Taua'a & Schoeffel 2019).

Then, by the late 1980s, the public health system in Samoa once community-based became hospital-based (Schoeffel 2016). There was greater outreach at the community level, until the government decided to centralize the health services in Samoa. It was a clear shift from a community-based and public health focused system to clinical medical care; sometimes referred to as the "medicalization of the society model" (Conrad and Bergey 2015). At the same time, the basic public health matters, such as health education, screening for basic health problems and advocacy and policy for healthy practices became less important. Even more importantly, the shift to hospital-based health system led to the establishment and implementation of an overseas treatment scheme, in collaboration with the New Zealand Ministry of Health in the 1990s which allowed for Samoan patients to receive advanced investigation of diseases and treatment in New Zealand, with those ineligible for the New Zealand scheme paid for the Government of Samoa (Schoeffel 2016).

In 2005, the Department of Health underwent a major reform and created two organizational arms, namely the Ministry of Health (MOH) and the National Health Services (NHS) (Samoa Ministry of Health Act 2006). The MOH served as the regulating arm of the health system, while the National Health Services provide the service delivery arm of the health system. The split in 2006 also led to the complete removal of the partnership between the WHCs and the Ministry of Health. (Schoeffel 2016). This decision saw the gradual moving away of MOH from working with WHC. In 2005, the Government of Samoa (GoS) also established the National Kidney Foundation (NKF) which provides hemodialysis to end stage chronic kidney disease patients (National Kidney Foundation of Samoa Act 2005). The health sector plans also saw the broader inclusion of important stakeholders in the whole health sector, including other providers such as private medical practitioners, pharmacists, dental practitioners, nursing practitioners and physiotherapists. Moreover, a range of traditional Samoan healers began to be recognized as part of the health sector. In 2005 too, an industrial action against the Government of Samoa by the Samoa Medical Association (SMA) marked the beginning of an era of true recognition of professional associations by the Government of Samoa. In addition, one of the new development partners in the sector, in particularly focused on developing human resources, was the establishment of the Oceania University of Medicine (OUM) in Samoa, in the year 2002 (Oceania University of Medicine Act 2002). It was clear from the health sector plans (HSP) that the government of Samoa wished to strengthen the partnership between the Ministry of Health and stakeholders including overseas development assistance partners. Consequently the Ministry of Health and the key development partners such as the New Zealand Aid (NZAid), Australian Aid (AUSAid) and the World Bank signed an agreement based on a strategic direction towards a "sector wide approach" (SWAp), as a basis for assistance to help implement the first five years of one of the HSP (FY 2009-2013).

After 10 years of the split and expansion in health services, the Government of Samoa realized that the reform was not cost effective and was not delivering the promised outcomes as originally intended. They decided to re-merge the health system into one entity again (Ministry of Health Amendment Act 2019). In fact, the 2019 measles epidemic which led to the death of 83 children within less than 4 months saw the need for Samoa's health system to return to working with communities. Many people were concerned about the low vaccination coverage and children's health status in the community, once a strong component of the partnership between the MOH and the WHCs. It brought

a rethinking of the priority areas of the health system in Samoa. It was also recognized then that Samoa is better off if the health system revives a public health model which reinforces community collaboration and places more emphasis on primary care and public health activities which involve communities in the planning and implementation of health related interventions in the spirit of the meaning of public health. As a result, the new organizational structure of MOH consists of two main streams of work (1) the clinical care services for treatment of patients, and (2) the public health services to look after health promotion, preventative medicine, health policies and rural health centers and community stakeholders. Awareness of the importance of public health gradually returned on the government's agenda especially within the MOH. For example, after more than 30 years since the last medical doctors were posted to stay permanently at the district health centers and hospitals, the practice was reinstated in 2019. Although it was part of the preparedness program for the Covid19 pandemic, it was a response to long time requests by the people residing in rural areas of Samoa for medical doctors to be available on a fulltime basis at the district hospitals across the two main islands of Upolu and Savaii.

History of public health and health promotion in Samoa

Public health is a multidisciplinary field whose main goals are to prevent the development of illness among the population, prolong life, and promote physical health and wellbeing through organized community efforts. (National Center for Health Statistics 2011). The key activities include (1) assessing the health status of the population, (2) diagnosing the health problems of the nation, (3) searching for the upstream and proximal causes of the health problems in the population, (4) designing and implementing solutions with the community members, and (5) conducting epidemiological research. (Aschengrau and Seage 2014). Public health is the scientific diagnosis and treatment of community health and social issues. There is also a great appreciation of the role played by politicians and policy makers when it comes to public health activities. This is because of its control over resources and responsibilities for developing laws required to protect population health. In Samoa, the public health system include, the Government agencies such as the Ministry of Health, the Samoa National Kidney Foundation; local agencies such as Private Doctors and Nurse Practitioners; non-governmental-organizations such as Red Cross, Family Planning Association of Samoa; Community organizations such as Women's Committees; and Academic institutions such as the Oceania University of Medicine and the School of Medicine and School of Nursing at the National University of Samoa. (Ministry of Health 2018).

Over the past several decades, many affluent countries have witnessed that social and health indicators revealed that public health makes a greater contribution to the overall health status of populations than advances in clinical medical care. For example, the increased average life expectancy of Americans is mainly attributed to improvements in the public health activities and services over several decades, not the medical clinical care system. (Bunker et al 1994). But public health seemed to be "losing ground" in Samoa over the previous decades, which a previously described, was once community based and now centralized. (Schoeffel 2016; Lameko 2022). The emphasis on doctors, hospitals and technology at the expense of preventative community programs has been a mistake. Samoa is now classified as a middle-income-country, but is still in transition from being a low-income-country. Samoa is currently experiencing a deep recession due in large part to the economic effects of the COVID-19 pandemic and in July 2021, the World Bank downgraded Samoa's classification to

"lower-middle income" from its previous status as an "upper-middle income" country (Department of State 2022). There are parts of the country which do not have adequate supplies of clean water and which have poor sanitation and sewerage systems, and which have no access to permanent health care services such as maternal and child health services and palliative care. Moreover, the reverence in which Samoans hold the clergy and their elders means disproportionate resources are demanded by the public for expensive clinical treatments of limited long term value, which means fewer resources to prevent disease among younger people.

Another issue is that public health programs are less influential because other sectors of government have taken over some public health functions or public health related functions such as water and sanitation, stream pollution, air pollution, rural hospital construction, safe public transportation, injuries prevention (motor vehicles, bicycles, others) and chronic disease control. Moreover, many politicians tend to be more interested in the treatment of individuals through the new diagnostic machines and the new 'magic drugs" and overseas treatment, rather than public health activities. This is why the field of clinical and acute medicine, which focuses on individual patients, had received a lot of attention and resources, especially among the politicians and policy makers. (Schneider 2011). Nonetheless, public health solutions are still relevant nowadays and lie within a range of broad interventions, such as health promotion and educational programs, implementing screening programs for early detection of diseases, and working with local governments and community organizations to raise people's awareness of how to improve their health and avoid disease. And at the heart of public health planning, implementation, monitoring and evaluation, stands the field of epidemiology which is defined as "the study of the distribution and determinants of disease frequency in human populations and the application of this study to control health problems."(MacMahon and Tricopolus 1996)

Government policy and Samoa's health profile

Since the inspiring Declaration of Alma-Ata (WHO 1978) on the centrality of primary health case to public health, community development and empowerment messages have continued to dominate health discourses, with WHO calling for a return to its principles, along with an emphasis on increased inter-sectoral collaboration. This approach advocates a "bottom-up, action oriented focus on the community's control over its environments and top-bottom professional driven approach with health advocacy. For instance, the development and designing of the Samoa National Health Promotion Policy (NHPP) 2010-2015 adopted the following strategic areas, such as (1) to build healthy public policies, (2) to create supportive environments, (3) to strengthen community action, (4) to develop personal skills, and (5) to reorient health services to work with other sectors and the community. (NHPP 2010.)The health promotion policy emphasizes the central role of health promotion in health. It proposed that health promotion is a process of enabling the individuals to take control of their own health and to negotiate their inclusion in matters affecting their own health. It also encourages people to look at their own health as a resource for everyday life not merely an objective of living. Moreover, it also argued that a country's economy and social development is inherently reliant on a healthy population. The Alma-Ata principles, articulated over thirty years ago, are reflected in government policy, if not always in practice, to address the social and economic and environmental issues which are central concepts of public health. The health promotion policy contains strategic directions that involve multi-sectoral coordination and support between the government, NGOs, social and economic

sectors, professional groups, social groups and civil society, so as the industries and media. It is aligned with other key public health policies, such as NCD Strategic Policies; Nutrition policies and Tobacco Control Regulations.

The government acknowledges that over the past several decades, the health status of the Samoan people has improved largely through the provision of basic health services and public health programs delivered communities. (Government of Samoa 2018). Public health achievements and specific activities that account for improvements in health and life expectancy among the Samoans include, (1) routine use of vaccinations for children against infectious diseases, (2)improvements in motor vehicle and work place occupational safety and health policies, (3) control of gastrointestinal infectious diseases through improved sanitation and clean water, (4) modification of risk factors for coronary heart diseases, strokes, diabetes and hypertension, such as tobacco smoking cessation, blood pressure and obesity control, (5) safety of food processing and handling, (6) improved access to family planning and contraceptive methods, (7) improved access to antenatal and postnatal care for pregnant women, (8) acknowledgment of tobacco as a health hazard and the ensuing antismoking campaigns and restricting tobacco smoking in public areas, (9) improved knowledge of unhealthy diet and importance of physical exercise, and (10) increasing inclusion of community organization, such as Women's Health Committees (Ministry of Health 2018).

Measures to address the prevalence of some sexually transmitted infections were fund to be "off-track" according to the Government of Samoa's 2010 Millennium Development Goals report. Although measures have been strengthened, Schuster and Schoeffel (2019:114) cite findings by Boodoosingh & Schoeffel (2018) that many teachers are uncomfortable about covering the curriculum strands on relationships and human reproduction in the health and physical education curriculum because of "the Samoan cultural prohibition of any topic with sexual connotations", especially in mixed sex classes.

Improving basic health services have resulted in progress. For example the Infant Mortality Rate (IMR) declined from 25 per 1,000 live births in 1988 to 17 per 1,000 live births in 2003, and to 15 per 1,000 live births in 2020 (World Bank, 2020). The under-five mortality rate dropped from 39 to 24 and to 17, in the years 1988, 2003, and 2020, respectively. During the same period, the Maternal Mortality Rate (MMR) declined from 140 to 107 and to 43 per 100, 000 live births. Since the turn of the 20th century, the average life expectancy at birth of Samoans has increased steadily by 20 years, from 50 to 75.46 years for female, and 71.32 years for male in 2019 (World Bank, 2019). The crude birth rate per 1,000 people has been fluctuating between 25 % and 29 % over the last decade.

Trends of non-communicable disease in Samoa

The epidemiology of NCDs and their associated risk factors among the adult population of Samoa is less encouraging that those cited above. They are thus a priority area of concern for the Ministry of Health and the Government of Samoa, today. It has long been known that NCDs have overtaken communicable disease as the dominant health problem in Samoa, and is now the leading causes of mortality, morbidity and disability (MOH 2017). The so-called "epidemiological and nutrition transition" in Samoa have resulted in high prevalence of diseases such hypertension (28.9 %), diabetes (21%), people with obesity (54.7 %), heart attack and strokes. (WHO 2013). Rates of obesity among Samoan adult female are three times those found in men. The rates of obesity have more than

doubled in the past 20 years (Lin et al 2017). Also interesting to note that obesity is more prevalent among people residing around the urban city of Apia, reflecting how urbanization and internal migration contributed to ill health of the Samoan people.

The risk factors of NCDs such as tobacco smoking among adults between ages 18-64 years old is 25.6 % and poor diet and lack of physical activities, to name a few (WHO 2013). Apparently, the prevalence rates for both sexes for obesity had increased by one percent between 2003 and 2013 (54.7 % to 55.8 %0; type 2 diabetes from 20.9 % in 2003 to 22.1 % in 2013; hypertension from 28.7 % to 29 % in 2013. Subsequently, the top five causes of death in Samoa are all NCD related, namely heart attacks and strokes (34 %), cancers (15%), chronic lung diseases (11%), and diabetes related diseases (9%). Unfortunately, the high prevalence of NCD risk factors is seen among the younger population of Samoa too, especially given that median age in Samoa is 21 years old, and that more than 40 % of the total population is less than 15 years old. The Global School Survey conducted in 2010 among 13-15 year olds found that 43.4 % of boys and 59.1 % of girls were overweight, and 15.7 % of boys and 22.3 % of girls are obese. (Fiji National University 2012)

The trends of obesity and diabetes, as noted by Lin et al (2017), saw the high prevalence of obesity already of the Samoa people in 1978 (27.7 % and 44.4 % for male and female, respectively). As a result the prevalence of diabetes among Samoan adults dramatically increased from 1.2 % in 1978 to 21 % in 2013. Interestingly, the adults reported a significant increase in physical activities in the 2012 survey compared to the earlier survey in 2002, but the overweight and obesity rates have both increased. The decreasing consumption of fruits and vegetables could explain this, but type of food containing high levels of calories were not being asked and recorded.

An estimated 81.75 % of all deaths in Samoa can be attributed to NCDs (World Bank 2019), and according to the National Health Accounts Report for FY2014-2015, NCDs accounted for over 36.4 % of total health care expenditure in Samoa. (Ministry of Finance 2014). A further cost analysis of just NCDs in 2017 (Institute for Health Policy 2017) confirmed that spending on cardiovascular diseases (heart attacks and strokes) are the most costly (11 % of the total health budget), followed by cancers (6%) and diabetes (6%). However, the measles epidemic in 2019 marked the first time since the last 60 years in Samoa, an infectious disease has ranked number one among the top 5 causes of death in Samoa.

Multiple factors are believed to have a strong association to obesity development and a causal inference of obesity such as behavioural factors leading to poor dietary patterns and sedentary lifestyle; genetic predisposition; early life dietary predisposition, and structural factors such as social economic status of the country and individuals, rural-to-urban migration, global industrialization, and world free trade rules. (Lameko 2020; Lameko 2021; Lameko 2022). Interventions of health policies and behaviour change strategies have been developed aiming to change the individual's behaviour to reduce eating calorie-dense food and drinks, and to increase physical activities. That is living an active physical lifestyle. But for decades now, very little had been achieved, and countries had just observed with desperation and speculation as the trends of both people living with overweight and obesity escalated to higher rates. (Lameko 2022)

In Samoa, the culture and people's traditions have been partly to blame, but interestingly, as noted by Lameko (2020), the Samoan culture of food has not changed; food and exchange of food

items between families and villages is still part of their culture. What has changed is the food items now dominating this exchange of food. Samoans have moved from a traditional diet consisting of root crops, fish, shellfish and birds, to a modernized diet of canned meat and fish, salt beef, mutton flaps, turkey tails, pizza, bread, rice, dairy products, and sugary drinks. (Lameko 2020; Wang et al 2017). Viali has also argued that the government of Samoa must seriously look at developing laws and policies to mitigate the negative effects of structural factors on the health of the people and especially obesity and NCDs, even if they involve intervention with market forces for the public good.

Government responses to the prevalence of NCDs

Samoa, through the MOH, had implemented 3 consecutive and successive Health Sector Plans (1998-2003; 2004-2008; 2008-2018) and the current Health Sector Plan 2018 – 2023 (HSP), which have been developed to align with the Samoa's Development Strategies 2018 -2023. The Government of Samoa, like many other small island countries in the Pacific, recognizes the high national costs of NCDs and obesity leading to the development of National NCD Control policies for 2010 – 2015, and 2018 – 2023 and the Samoa National Health Promotion Policy 2010 – 2015. A new and updated nutrition policy for 2021- 2025 has recently been published by the Ministry of Health (2010).

The focus of the first two Health Sector Plans were (1) to upgrade clinical facilities and equipment, (2) to establish a national health information system (HIS), and (3) to improve the service delivery to rural population, with an emphasis on nurse-led teams. Prompted by the high prevalence of NCDs and risk factors of NCDs, to date, during the life of three HSP, the Samoa MOH had launched and implemented three NCD Strategic Plan of Action for the years 2004-2008. This NCD Strategic Plan Of Action was informed by the findings of a WHO and MOH NCD Risk Factors STEPwise Survey which was conducted in 2002 and published in 2003. The essence of the NCD plan is to slowly move away from costly clinical treatment and hospital services, and focus more on health promotion and preventative measures. This was followed by the NCD Policy 2010 -2015 which also reemphasized the need to strengthen primary prevention and health promotion and the need to ask for more resources for implementation of activities. Interestingly, strides were made, especially with PEN Faa-Samoa, to foster community involvement and inclusion in health promotion programs.

The current National NCD policy 2017-2022 seeks to reduce the preventable burden of morbidity, mortality and disability due to NCDs, through multi-sectoral collaboration and the national level. Health promotion and Food Policies also emerged during the life of the HSP and NCD SPOA. A lot of new areas and disease entities have been included in the current policy. For instance, the current policy have included indicators to address CVDs, cancers, diabetes and obesity of population and chronic lung diseases. It has also taken a stance in oral heath, auditory health, palliative care, dermatological diseases, reproductive health and disaster preparedness as related to NCDs. Samoa's health policy is now re-emphasizing community-based interventions such as school programs to promote physical education and after-school sport, and engagement with village women's committee to support screening of NCD risk factors in members of the community and referring those at risk for treatment.

The Search for Answers and New Perspectives for the Health of Samoans

Better research methods and tools are among the top public health needs for Samoa. Although Samoa's Government is slowly re-emphasizing the return of its health system to public health and community-based interventions, there is a great need for new baseline data regarding the impact of the activities already being implemented under the previous Health Sector Plans and other public health policies. The MOH will have to adopt a more active approach towards health research to increase understanding of real health issues at the community level. MOH needs to facilitate research by the National University of Samoa, Oceania University of Medicine and overseas research organizations to train local researchers and, if necessary train health workers in research methodologies and how to conduct research projects at the community level. Knowing the health profile of the country and the district where you work will give health workers more understanding of baseline problems within that district. Evidence supports action; it helps to point to the best ways improve access and quality of health services leading to better preventative outcomes. For example health workers need to know the nutritional intake of the young children in their district and the prevalence of anaemia and malnourishment among them. They need to understand the underlying social and economic issues of malnourishment. Little is currently known on this subject. Another fact that needs to be known by health workers in is whether there are equity issues in communities, in terms of accessing health care and public health activities in Samoa, and there are norms and practices in communities that may negatively affect equity.

The MOH needs to base its public information activities on evidence about how both individuals and groups of people view their own world and social relationships; how they identify things as being problematic in their own terms. Such practical knowledge will help to inform people in ways they can relate to, to create their own healthy communities and environments. It is often the case that sponsorship by external donors sparks the implementation of health activities which are short-lived, followed by a lack monitoring and evaluation of the impact on the health on whether the expected health outcomes were achieved. There is a need to know and learn about "real" social processes at the community level in order to understand the health issues at that specific level. For instance, more knowledge is needed on what people eat on a daily basis; what children do after school, and what aspects of the lifestyles of men and women are undermining their health. The strategy to build a healthy environment as articulated by the National Health Promotion Policy (NHPP) 2010-2015 is indicative of the importance of environment where people live, grow, schooling, religion, leisure, and sports, to name a few. The NHPP 2010-2015 also saw the shift of the focus from just health care and clinical services to social and economic determinants of health in Samoa. While this was a great way forward for the health system in Samoa, the lack of new data and information was counterproductive. Public health issues including the heavy costs that diseases have on the economy also need to be made known at the governmental level of Cabinet. Not least, in the economic hard times Samoa is facing along with most of the world today, there is a need to identify how the government could provide health services at a less-rapidly-rising expense, specifically the budgetary costs of hospital and medical care including services of nurses, physicians and surgeons.

An independent report written and submitted by a consultant in 2013 immediately pointed out the weaknesses in the application of monitoring and evaluation framework (M&E) and absence of valid baseline measures in many areas of the health sector plans in the previous years, between 2008 and 2013. (Davies 2013). It further explains that while planning and drafting new health policies and

legislations was well done, monitoring of the implementation and outcomes was lacking. Samoa is no stranger to strategic planning, which has been incorporated into government processes since the 1990s. Strategic planning is based on expected and targeted outcomes, which require careful monitoring so that progress to be calculated, and failure recognized, analysed and corrected. Such measures must be used to assess the efficiency and effectiveness of health sector plans, both past and present, including non-communicable diseases strategic plan of action (NCD SPOA), Nutrition Policy, health promotion policies, and others.

As part of surveillance of diseases, the MOH should establish separate national registries for cancers, diabetes, hypertension, strokes, heart diseases, and obesity. For example the WHO Package of Essential Non-communicable Disease Interventions (PEN) termed the PEN Faa Samoa programme, which is a community based program to identify NCD risk factors and refer people at risk though their local hospital. The findings from PEN groups should be to collate into with hospital registries to reflect a true picture of prevalence of NCDs in defined populations. There is a need for a registry of children presenting with illnesses at the community level for conditions such as asthma, hearing and oral problems, physical and intellectual disabilities and other chronic conditions. At the same time, village health workers, together with the MOH data officers should make time every week to record some of these upstream factors and data: social and cultural determinants; education level and literacy level; employment levels; water and sanitation standards; religious practices; decisions being committed by leaders of the community; workplace environment; school environment; home environment; church environment; family planning and structure; housing conditions and crime levels.

More research on the social determinants of health is needed; these may be political as well as cultural. If the government of Samoa is to offset the rising costs of treating NCDs, it will have to explore through research how the social issues may have a negative impact on the health of the population. Such social issues include, violence against girls and women, teenage pregnancy, unemployment, child bullying, crimes against property, fighting, suicide and homeless, to name a few. The question of why some Samoans are healthy and others are not needs to tie to in this conversation and to explore social-economical-status (SES), education level, and the community status of the people. It has long been known that in wealthy countries, those who are well off financially live longer and healthier lives than do the poor. Do we know that for the Samoans? The MOH will also need to examine the risk factors of NCDs found in the work place environments to help them plan for preventative actions. Furthermore, there should be a repeat of a WHO STEPwise survey, to collect new data to inform policy development and a new HSP 2023 -2027 and the New Pathway for the Development of Samoa 2022-2227. After all, the MOH urgently needs a working HIS In order for the information from rural and GPs to link to the central MOH

Community members must consider themselves as the essential voice in matters affecting their health and wellbeing, and have a sense of "ownership" and self-reliance towards health programs which aim to prevent diseases and promote physical and mental health. One of the failed instances of PEN Fa'a Samoa programmes involved a WHC who expected to be paid for implementing it (Schoeffel 2016). A good place to start is to conduct a survey to explore and examine the level of awareness among the community members about the risk factors of NCDs and how to prevent them, because presently there is no baseline assessment date against which to measure change. Another initiative for MOH's goal of equity is to ensure that health workers understand that traditional Samoan

hierarchical values may have negative impacts by deterring people from seeking health care, which must be overcome.

Health education activities should include youth in the form of seminars to discourage them from taking up tobacco smoking and binge consumption of alcohol, and practice skills with health benefits such as growing vegetables. Screening of risk factors of NCDs should, as under PEN Fa'a Samoa programme in some villages, be conducted by all WHCs with the help of district health officers. Support systems for people living with NCDs and complication also need attention. With the high prevalence of NCDs, patients need support systems such as appointment scheduling and especially a recall system for regular medical check-ups and refill of medications. Keeping baseline data and health information at the village level will help them analyse the trends and apply the appropriate actions. Women should be educating on breast-self-examination techniques, and men should be move aware of the need to have regular screening for symptoms of prostate cancer. Screening village school children for overweight and obesity at the village level could also be done with WHCs who could also learn the appropriate advice to give parents or caregivers.

In addition, the GoS should introduce a tertiary prevention program as part of public health to reduce the development of NCD complications. There is a need to establish formal palliative care services on both islands for cancer patients and those with other chronic illnesses for pain management and rehabilitation and mental health support. Samoa has some very effective NGOs working with people with disabilities but these often don't reach rural areas. The government should assist NGOs to support people living with permanent disabilities. MOH might consider implementing Continuous Quality Improvement (CQI) program based on the Australian model for chronic care, called Audit and Best Practice for Chronic Disease (ABC) (Bailie RS et al 2007). In the future, Samoa will see more Samoans living longer which will bring new challenges specific to the geriatric patients.

As previously noted, government should be willing to resist commercial pressures where public health is concerned; this should cover restrictions on advertising and imposition of taxes on alcohol, cigarettes, sugary drinks and foods with low nutritional value. There should also be a strict and ongoing policing of current health regulations, such as smoking in public places, and a partnership approach for a healthier Samoan between MOH, other government agencies and the private sector

The education sector also needs attention. Since 40 % of the total population is those 15 years old and less, the government should review its health education curriculum with specific topics about NCDs in schools. This will educate the young population of Samoa about the upstream risk factors of NCDs and how to prevent these diseases from developing later in life as adults.

The institution by the government of district development committees supported with funds for practical budgeted proposal could benefit public health by examining, for example, the water and sanitation situation in schools. The district committees could encourage villages to choose their school committees widely and spot-check schools to inspect their sanitary conditions and adherence to the policies of the Ministry of Education Sports and Culture. They could request the National University of Samoa to conduct a KAP survey among parents about children's attitude towards obesity, heart diseases, cleanliness, and after school activities. District councils could also subsidise equipment, transport and market outlets for local food producers to increase food supply and lower prices, improve rural access roads, and work with villages to overcome the theft of food crops and their

destruction by wild pigs. The churches should also advocate for healthy living and physical active living at the community level. Using children as role models of health behaviour changes could possibly spark change. (Lameko 2022).

Measures to start a Health Promotion Foundation in Samoa, as provided by an Act of Parliament Act in 2018, need to start now. Given the need to increase the research capacity of the MOH, one could propose to combine the foundation and research, and perhaps called it the Health Promotion and Research Foundation of Samoa. The MOH should also revive the NCD Steering Committee established in 2016, and the Physical Activities and Nutrition Task Force, and review its memberships to ensure community members are also involved in the planning.

Health professionals should take the lead in promoting physical and mental health in the country. At the same time, it is crucial for the MOH to sort out the internal leadership differences among the health professionals. The health professionals, need to weigh in and lead the fight against NCDs by example. They should serve as models for other sectors in promoting healthy physical health and health behaviour. It should start by requiring by all health officers to quit smoking tobacco, and ensuring their body mass index (BMI) is in the normal range. A study by Siva and Lameko, (Ravishankar and Lameko 2021) and an unpublished study by Lameko and Patu, (Lameko and Patu 2010) shows that many medical doctors in Samoa are obese and suffering from NCDs themselves. A new study by Lameko 2022, among all Samoa doctors is being done, to get more precise data. MOH should considered getting the SQA to accredit the CME and Nursing CPD, Dental CE and all allied health professions to have some form of Continuous Professional Development (CPD) program.

Warnings on the global threat of new and re-emerging tropical diseases had been issued by the WHO over the previous decades. The measles outbreak in 2019 in Samoa, made an infectious disease appear in the top five causes of all death in Samoa, for more than five decades. It was thought to be brought into the country by a young child who travelled from NZ, via Auckland international Airport with her parents. In was compounded by a low level of MMR vaccination over the previous year, owing to the fear of parents to take their children for vaccination after two babies died instantly after a nurse administered a wrong medication, instead of a vaccine (Boodoosingh et.al 2020). The incident led the government to call for an investigation and a court case, which took a year, while in the meantime, children were not getting vaccinated. In addition, the threat of new infectious diseases has been issued by the WHO and the predictions came true when Covid19 because a pandemic in 2020. It places a lot of pressure on developing countries like Samoa to come up with efficient diagnosis tools, better control of exposure and designated isolation facilities, and hospital and ICU beds for the severe cases. Samoa has learned from its past mistakes and successes and must be prepared for future outbreaks of infectious disease.

Conclusions

There is a clear call for the Government of Samoa through the Ministry of Health and partners (national or international) to formulate new strategies to address the current issues and challenges towards and within the health system of Samoa.   Whilst the current Health Sector Plan is still valid, there is a need to develop a new Health Sector Plan to align and capture the new political agenda and aspirations written therein the new Pathway for the Development of Samoa 2023 – 2026, set forth by the new government and with clear guidelines for monitoring, analysis and assessments. In this article

I have aimed to summarize that situation. Progress will depend on the Samoan health sector, with local communities and development partners to come together to identify a set of locally appropriate, evidence-based measures to halt the rising prevalence and increasing risk factors of NCDs and obesity-related diseases. Expensive technical and clinical services at the top of the health care system are not the right model for Samoa. Far more investment is needed to fix the contributing causes which have been outlined. While Samoa needs to continue to building its human and physical capital, it also needs to implement broadly based reforms; structural, financial, interpectoral collaboration and readiness for future threats. Over the next decade there should be continued efforts to renew the work of Women's Health Committees and encourage and support them towards the ownership of health activities at the village level, and to look at establishing new such committees in the emerging peri-urban areas. I have argued here for legislation and "unpopular policies" making salty, sugary, and fatty foods more expensive while subsidizing the means of increasing production of   fresh local produce for the consumers. The three public health broad areas I have mentioned in this article needs to be revisited by the Ministry of Health and the Government of Samoa, namely, (1) health education programs in communities and schools (2) conducting screening programs at the community level, and (3) developing policies and enacting laws for a healthy Samoa.

References

Aschengrau A, & Seage III GR (eds) 2014, *Essentials of Epidemiology in Public Health,* 3rd edn, Sudbury MA: Jones & Bartlett Learning.

Bailie RS, Si D, Dowden M, & Lonergan K 2007, *Audit and Best Practice for Chronic Disease: Project Final Report,* Menzies School of Health Research, Darwin: Australia.

Boodoosingh R, & Schoeffel, P 2018, 'Community law-making and the codification of customary laws-social and gender issues in Samoa', *In Brief: Department of Pacific Affairs,* Canberra, Australia: Australian National University.

Boodoosingh R, Akeli, AS, Schoeffel, P 2020, 'A Perfect Storm: The Social and Institutional Contexts of Samoa's 2019-2020 Measles Epidemic and the lessons learned for the COVID-19 Pandemic', *The Journal of Sāmoan Studies,* vol. 10, pp. 5-24.

Bunker JP, Frazier HS, Mosteller F 1994, 'Improving health: measuring effects of medical care', *Milbank Quarterly,* vol. 72, pp. 225-258.

Conrad P, & Bergey M 2015, *International Encyclopedia of the Social & behavioural Sciences*, 2nd edn htpp:///www.science/articlepii/B97800809.

Davies P 2013, Evaluation of Samoa Health Sector Management Programme (Health SWAp) Services order 211. AusAID HRF, Canberra, Australia, www.ausaidhrf.com.au

Department of State 2022, *Investment Climate Statements: Samoa,* Washington D.C., USA: Department of State. https://www.state.gov/reports/2022-investment-climate-statements/

Fiji National University C- Pond 2012, *Situation analysis of issues related to childhood obesity in Samoa, 2012,* C-Pond, Fiji National University.

Institute for Health Policy 2017*, Samoa National NCD Cost Analysis Study,* Institute for Health Policy,

Colombo: Sri Lanka & Centre for Health Information, Policy and Systems Research (CHIPSR), Fiji: National University in Fiji.
https://documents1.worldbank.org/curated/en/452191554307500821/pdf/Samoa-National-NCD-cost-analysis-study.pdf

Lameko V 2022, 'Does Samoa have adequate policies to reduce obesity and obesity-related disease?', *Cureus,* DOI: 10 7759/cureus.23239

Lameko V 2021, 'Are "behavior change" approaches to obesity and health, effective? A case study from Samoa', *Pacific Health Dialogue*, vol. 21, no. 8, pp. 549-555

Lameko V 2020, 'Obesity in Samoa: culture, history and dietary practices', *Journal of Samoan Studies,* vol. 10, pp. 25-39.

Lameko V and Patu C 2010, 'Prevalence of risk factors of non-communicable diseases among Samoan medical doctors', *Samoa Medical Association Conference and Scientific Seminars,* Apia, Samoa.

MacMahon B, & Trichopolus D, 1996, *Epidemiology: Principles and methods,* 2nd edn, Boston, MA: little, Brown and Co.

Ministry of Health 2018, *Health Sector Plan: 2018-2023: Government of Samoa: MOH Schneider MJ 2011.* Introduction to Public Health, 3rd edn, Sudbury MA: Jones & Bartlett Learning.

Ministry of Health 2010, *Samoa National Health Promotion Policy 2010-2015,* Government of Samoa: Ministry of Health

Ministry of Health 2017, *Non-Communicable Diseases Plan of Action: 2017-2022,* Government of Samoa: Ministry of Health

Ministry of Finance 2014, *National Health Accounts Report for FY2014-2015,* Government of Samoa: Ministry of Finance

Mounier-Jack S, Griffiths UK, Closser C, Burchett H, & Marchal B 2014, 'Measuring the health systems impact of disease control programmes: a critical reflection on the WHO building blocks framework', *BMC Public Health*, 14: 278. Htpp://www.biomedcentral.com/1471-2458/14/278

National Center for Health Statistics 2011, *Health, United States 2010 with Special Feature of Heath and Dying,* Hyattsville, MD

National Kidney Foundation of Samoa Act 2005, Government of Samoa

Oceania University of Medicine Act 2002, Government of Samoa.

Ministry of Health Amendment Act 2019, Government of Samoa.

Samoa Ministry of Health Act 2006, Government of Samoa
https://www.palemene.ws/wpcontent/uploads/01.Acts/Acts%202006/Ministry_of_Health_Act_2006_-_Eng.pdf

Ravishankar S & Lameko V 2021, 'Prevalence of risk factors of non-communicable diseases among Samoan medical doctors', *Submission as a requirement of the medical doctor program at the Oceania University of Medicine,* Samoa.

Samoa Bureau of Statistics 2017, *Statistical Abstract,* Apia, Samoa: SBS. https://www.sbs.gov.ws/digi/2017%20-%20Samoa%20Bureau%20of%20Statistics%20-%20Statistical%20Abstract.pdf/.

Schoeffel P 2016, 'Revitalization of Samoa's Village Women's Committee for Public Health Promotion', Centre for Samoa Studies: National University of Samoa.

Schuster S, & Schoeffel, P 2019, 'Girls and Sports in Samoa: Culture, policy and Practice in Rural Communities', In G Molnar, SN Amin & Y Kanemasu (eds), *Women, Sport and Exercise in the Asia pacific Region: Domination, Resistance, Accommodation*, London and New York, Routledge

Tauaa T & Schoeffel P 2019, 'Town as Village: Urbanization, Governance and Neo-traditionalism in Samoa', *Journal of Samoan Studies*, vol. 9, pp. 7-20

Wang, D, Hawley, N, Thompson, A, Lameko, V, Reupena, S, McGarvey, S, & Baylin, A 2017, 'Dietary pattern are associated with metabolic outcomes among adults Samoans in a cross-sectional study', *The Journal of Nutrition,* Htpp://jn.nutrition.org

World Bank Data 2019, 'Crude death rate per 1,000 people in Samoa 2013', WHO STEPwise 2013: Samoa, Geneva, Switzerland: World Health Organization. https://data.worldbank.org/indicator/SP.DYN.CDRT.IN?locations=WSWHO.

World Health Organization 2012, *World health report: Good health adds life to years,* Geneva, Switzerland: World Health Organization. http://www.wpro.who.int/publications/PUB_9789290223337/en/

World Health Organization 2007, *Everybody's business: strengthening health systems to improve health outcomes, Who's Framework for Action*, Geneva, Switzerland: World Health Organization. Htpp://wwwwhoint/healthsystems/strategy/everbodys_businesspdf

World Health Organization 2008, *Commission on the social determinants of Health: Final report: Closing the gap in a generation: health equity through action on the social determinants of health,* Geneva, Switzerland: World Health Organization. https://books.google.ws/books?hl=en&lr=&id=zc_VfH7wfV8C&oi=fnd&pg=PA1&dq=World+Health+Organization%27s+Commission+on+Social+Determinants

World Health Organization 2013, *STEPS Survey: Risk factors of NCDS: Samoa,* Geneva, Switzerland: World Health Organization .Accessed December 12, 2021. Htpp://:/Users/rleach/Downloads/Samoa-Final-Fact-Sheet-2013.PDF

World Health Organization 1978, *WHO called to return to the Declaration of Alma-Ata: International conference on primary health care,* Geneva, Switzerland: World Health Organization. https://www.who.int/teams/social-determinants-of-health/declaration-of-alma-ata.

The Role of NUS in Establishing the Samoa Knowledge Society Initiative (SKSI): Empowering Samoans through Access to Quality Information

Ioana Chan Mow, National University of Samoa

Abstract

The Samoa Knowledge Society Initiative (SKSI) is based on the premise that access to information and knowledge is a prerequisite for building inclusive knowledge societies. SKSI is a national project with multiple partners funded by UN agencies and the India Development fund. The aim of SKSI is to promote equity and inclusion with the establishment of a Knowledge Society Platform with three components: the Samoa Digital Library (SADIL), Lifelong Learning Lab and an Open access Research Repository. The initiative is planned to be implemented in two phases and implementation is now at the end of the first phase. The paper describes the components of SKSI and outlines the role of the National University of Samoa in the establishment of the SKSI platforms. The paper also outlines the benefits of the SKSI project as well as issues and challenges. Benefits include open access to reliable credible information; provision of lifelong learning; access to research of national significance; establishing Samoa as a regional information hub. The establishment of SKSI is also deemed timely with the heavy reliance on technology during the COVID era. A consequence of the heavy reliance on technology in the pandemic era has been its effect on worsening the digital divide and the exclusion of already marginalized communities (UNICEF, 2020), (World Economic Forum, 2020). Hence the drive for inclusive education is paramount and SKSI fulfils this by offering of these three (3) platforms, providing access to information and learning.

Keywords: Digital Library, Lifelong Learning, Open Access Research Repository, Knowledge Based Society

Introduction

Samoa's 2nd Voluntary National Review Report for Implementation of Sustainable Development Goals (Government of Samoa, 2020) indicates that issues of inequality and hardship continue to emerge in Samoan society. This is evident among those unemployed in both the rural and urban areas not having access to basic services and opportunities. This inequality cuts across sectors. In communication despite 86% mobile penetration, access and affordability are issues affecting universal access. In education the need for better access to quality educational resources and in research the lack of access to scientific journals and research products have been identified (United Nations Regional Coordinators Office, 2019). There is also disparity and inequity in access to information between urban and rural as well as those with disabilities.

Interventions to reduce inequality and provide better access to information is then a priority, and one such intervention is the Samoa Knowledge society initiative (SKSI). The Samoa Knowledge Society Initiative (SKSI) is based on the premise that access to information and knowledge is a prerequisite for building inclusive knowledge societies. The initiative bridges the digital divide by establishing an accessible localized knowledge platform, to serve the information needs of specific user groups such as professional communities, students, researchers, those with disabilities, and those in rural areas.

The paper outlines the establishment of SKSI and the role of the National University of Samoa in this project through the development of the three (3) platforms. Secondly, it also outlines the potential benefits and challenges of the SKSI project and future projections and recommendations.

Establishment of SKSI and the Role of NUS

SKSI is a national project with multiple partners funded by UN agencies and the India Development fund. The aim of SKSI is to promote equity and inclusion with the establishment of a Knowledge Society Platform with three components: the Samoa Digital Library (SADIL), Lifelong Learning Lab, and an Open access Research Repository.

In preparation for SKSI, stakeholder consultations to gather information needs of the various sectors of society were carried out as well as a preliminary survey and survey of the status of digitization of ministries and corporations. This was to ensure the content of the platforms meets the information needs of the users and citizens of Samoa (UNRC, 2019).

The preliminary survey of government ministries conducted by NUS in December 2018, indicated that several ministries were already in the process of digitization of documents and other artefacts, and were at varying stages of implementation (National University of Samoa, forthcoming). The preliminary survey also confirmed that NUS is well positioned to be the centralized hub for the National digital library initiative due to its extensive library collection both digital and physical collections of books, graphical material, videos, and digitized documents as well as extensive links to external digital collections such as Hinari, TEAL, Ebscohost, Sage online. These collections are housed in the NUS library as well as the NUS Centre of Samoan Studies (CSS). Resources include rare books, and ethnographies, Samoan and Pacific collections, Samoan Archaeology and heritage database. The university has invested in hardware storage such as the three (3) computer servers (Library server, CSS server, DSpace server) as well as digital library software such as DSpace, Data crow catalogue and Docfetcher software.

A second survey conducted in 2019 by Makeki online [1]consultants on 35 ministries, corporations revealed that first, 60% of the offices that responded already have digitization processes in place. Second, 19% of the offices with digitization processes have digitization policies. Third, within these ministries, digitization began 10 years ago and mainly carried out by ICT personnel, and forth, the top reasons for digitization were to increase access to information and for saving space (Mose, 2019)

The SKSI project was designed to be implemented in two phases, with Phase 1 of the SKSI initiative funded from the UN-India Partnership fund as well as the UN agencies (UNRC, UNDP, UNESCO, FAO). The next sections will detail the three components of SKSI.

Figure 1. Main portal of the SKSI platforms (adapted from SKSI website)

Samoa Digital Library (SADIL)

The Samoa Digital library has 2 components or sources. There are links to the external libraries to secure open access to external knowledge products. Examples include HINARI, the UN Sustainable development library, and the Library of Congress. The second source is digitized local content that includes books, studies, maps, and documentaries from the education sector and the ministries. Hence the Samoa digital library enables access to text, and bibliographical information, from Samoa and international sources. Currently, local contents are mostly donations from the collections from the NUS library as well as the Centre of Samoan Studies with documents on Samoa and the Pacific. As mentioned earlier, these documents are either historical or heritage documents or on all subjects past and current in Samoa and the Pacific.

An important aspect of implementation is the establishment of hardware, software, and connectivity infrastructure for the Knowledge Platforms. Assessments for hardware, software, and connectivity were implemented by the NUS SKSI team along with installation. For quality assurance, this assessment was peer-reviewed by the ICT division of Victoria University Wellington as well as the Centre of excellence in IT (CEIT) academy of NUS. To ensure sustainability, the platform uses open-source software solutions such as DSpace for its repositories and Moodle for the learner management system.

Because of its distributed nature, connectivity is important. The Samoa digital library when fully implemented, will use a distributed model where each ministry will host its own digital library, and all these library nodes connected centrally to NUS via a network. The prototype of this is now operational. It is the intention that these nodes of the National digital library be connected internally via the Samoa

National Broadband highway (SNBH) [2]and linked externally to overseas via the Tui Samoa Cable. (Refer diagram in Figure 2)

Figure 2. Proposed Model Samoa digital library: distributed model (adapted from NUS Digital library Concept paper for SKSI, 2018)
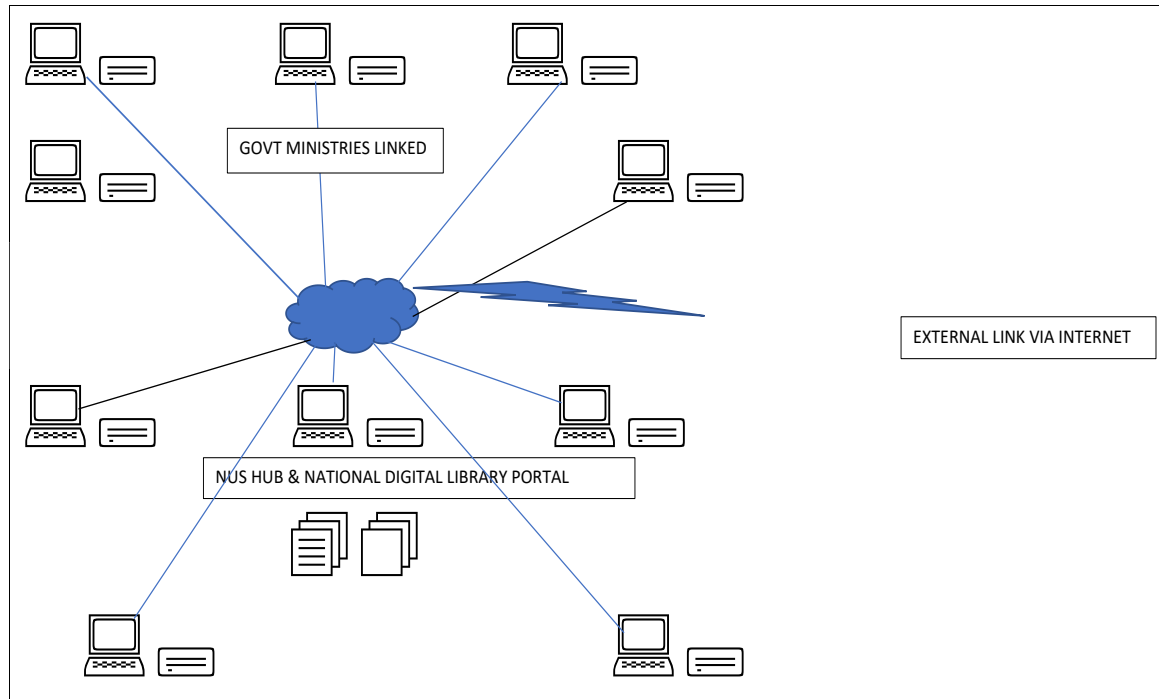
Now external links to resources require internet access and are accommodated under zero data educational sim cards[1] donated by Vodafone and Digicel. To reduce access costs through the use of caching facilities, there are also plans to negotiate for the use of the internet exchange point IXP at the Samoa National data centre, for this purpose. Since a major barrier to access is internet access, to ensure no one is left behind, the SKSI platforms will be multimodal providing digital knowledge through the various media of TV, radio[2], online, and offline access.

Lifelong Learning Platform

SADIL will be complemented by the Lifelong Learning platform to support digital learning giving access to users to a wide range of learning material, online courses, and certifications. These resources will be available initially to the education sector but extended later to ministries to upgrade the labour market and support skills development.

The Lifelong Learning platform aims to establish a digital learning platform curated with Open Educational Resources from locally produced and external resources. At NUS the Moodle platform is already in place with the network infrastructure upgraded for COVID lockdown. There is now free Wi-Fi across all campuses and with all NUS courses are now online on Moodle. The NUS Moodle team has been established with Moodle trainers, administrators and instructional designers and with ongoing training of all NUS teachers. A second component of the NUS lifelong learning services is the Workforce recovery initiative in which NUS is in collaboration with the Commonwealth of learning, Coursera, Google and Udemy to offer free online learning opportunities for Samoan citizens. The

ministry of education is also developing its own lifelong learning platform with assistance from UNESCO and this will coexist with the NUS lifelong learning platform to form the basis of the national lifelong learning platform.

Along with local OER resources from NUS and MESC[3], COVID- 19 donations of Open Educational Resources (OER) from COL, Otago Open Polytechnic, Merlot and OER Commons have all contributed to populating the OER repositories of the Samoa Digital Library as well as the lifelong learning platform.

A steering committee to manage the SKSI platforms has already been established with key stakeholder representatives from key government ministries.

Open Access Research Repository

The third component of the SKSI platform is the open access research repository. It is apparent that Samoan researchers, students, public servants have limited access to quality academic journals and research findings (UNRC, 2019). An Open access research repository has been established and hosted in Dspace with crosslinks to SADIL and Lifelong learning platforms. It is expected that data from research on key priority areas will be stored in the repository to provide access to inform decision making, best practice, and policy. The first such research was on Water quality and was a joint study between NUS, NYU, AbuDhabi. The first report along with 2 publications of this water quality research has been shared on the research repository. Any future research at the university have been encouraged to share findings and data using this open access repository. It is expected that there will be further refinement of the Open access research repository in Phase 2 of the project.

Potential Benefits

The potential benefits from this initiative are manifold. The project provides access to reliable credible information from credible curated sources as well as a rich source of digitised documents, video through its three (3) components. Access to credible and reliable information is vital particularly within the current climate of the prevalence of misinformation and disinformation from online sources.

A valuable contribution is the provision of access to quality information so students, the workforce, and leaders can make informed decisions thereby facilitating improvements in the efficiency and working of government and ultimately the wider community.

The establishment of the national digital library has enabled the digitization and preservation of historical and heritage documents in Samoa. Donations from the Samoa and Pacific collections of NUS have ensured the preservation of these valuable national assets as well as the preservation of traditional knowledge, customs, and culture for posterity.

The establishment of an open access research repository is to ensure academics, researchers, and policymakers have access to research findings in areas of national interest and priority. When populated, the open access research repository will provide a rich source of research data to inform policy, strategic direction, and further research in areas of national interest and priority.

The last two years have been one of the unprecedented events as we battle with the covid pandemic. Pandemic lockdowns have intensified the need and heavy reliance on technology and e-government services to provide some form of business, work, and learning continuity (De et al. 2020). We make the assertion that technology is the means by which to build resilience in order to "adjust and recover from these changes" – in what we now call "the new normal" (World Economic Forum, 2021). In short, these platforms could not have come at a better time. To ease the disruptions to work and learning due to pandemic lockdown and closures, the 3 online platforms ensure access to valuable educational resources, to access online learning, and to access an open-access research repository. Hence in this sense, these platforms also play an integral role in the use of technology in building resilience against disruptions due to pandemics and also other natural disasters.

The Samoa Knowledge Society initiative also necessitated and provided the need for capacity development in establishing protocols and standards. To facilitate the assembly of distributed digital libraries and ensure interoperability across the nodes of a digital library there is a need to establish standardized formats and protocols. This is because the stored artefacts are usually in diverse formats and protocols. Standardised formats and protocols are important for storing, indexing and retrieving digital objects (Cleveland, 1998). Within a coordinated digital library scheme, some common standards will be needed to allow digital libraries to interoperate and share resources. To ensure interoperability NUS developed its editorial and digitization guidelines which then became the precursor of the development of national editorial and digitization guidelines. As well the initiative promoted open access to information and hence necessitated the need to develop an open access policy for NUS which would then provide valuable input to the development of the National Open access policy for Samoa.

The SKSI project has provided essential capacity building among national stakeholders in the areas of digitization of resources and uploading to the digital platforms; setup and the use of the online repository DSpace, the backend for the digital library; setup and use of the multiuser interface of the three (3) platforms; and for the lifelong learning platform, setup, administrative support and the use of Moodle, the learner management system.

A consequence of the heavy reliance on technology in the pandemic era has been its effect on worsening the digital divide and the exclusion of already marginalized communities (United Nations International Children's Emergency Fund, 2020) (World Economic Forum, 2020). Hence the drive for inclusive education and inclusive digitalisation is essential and SKSI fulfils this by offering these three (3) open access platforms, providing open access to information and learning for all through the use of zero data to facilitate online access.

Part of Samoa's vision in terms of digital strategy is to position Samoa as an information hub for the region and SKSI contributes to achieving this. The SKSI platform is being piloted in the education sector primarily at NUS then extended to the rest of the ministries and to the community. External connectivity via the Internet as well as local connectivity via the SNBH is expected to provide access to all ministries, schools and hospitals thus ensuring national access to these three (3) platforms. At its later stages the project is to provide access to the community via mobile apps and in fact the ministry of Agriculture have just developed a mobile app for farmers. These digital information services can then be extended to the region using Samoa's submarine connections to neighbouring islands.

Issues and Challenges

As with all projects, particularly one with multiple stakeholders in donors and implementing partners, a few challenges were encountered in the project planning and implementation. The emergence of the COVID pandemic led to considerable delays and variations to the implementation due to travel, delays in procurement and obtaining technical experts. Hence Phase One (1) of the project was extended for another year to accommodate for delays in the development of the MESC lifelong learning platform as well as the National Open access policy.

An important consideration is the sustainability of the SKSI platforms. The issue of maintenance costs, training in the setup, use, and maintenance of the platforms have to be factored in in the long-term implementation of these valuable assets. Implicit in the sustainability of the platforms is the need for monitoring and evaluation. These require the development of additional policies, regulations, and guidelines in the use and maintenance of the platforms, as well as regular reviews to ensure relevance and continued value to the community.

Current Status and Future Implementation

The UN digital library has been installed and other libraries identified (HINARI, TEEAL, World Digital library). Digitisation of book collections (heritage, Pacific and Samoan literature) is in process using defined policies, editorial guidelines and formats that were developed under the SKSI project. The establishment of National policies on access to information and lifelong learning and drafting of relevant legislation is an important part of the SKSI platform. NUS now has an Open Access to Public Information Policy and lifelong learning in place that were established with assistance from the Ministry of Commerce Industry Labour, Attorney General's Office and National Archives and Records Authority. Second, an Editorial guideline subcommittee for NUS has been established to vet editorial content and formats of publications to be uploaded to the digital library. In developing the policy and guidelines attention was given to ensure inclusiveness to accommodate for special needs, minorities and the marginalized thus ensuring inclusive digitalisation for the community. As well a multilingual interface for the SKSI platform is already in place to ensure access in both English and Samoan.

The SKSI initiative was planned to be implemented in two phases and implementation is now at the end of the first phase. The main activities completed in Phase one (1) were the development of the three (3) platforms: SADIL, the Lifelong learning lab and the research repository; development of NUS and National Open access policy; training on the use of the SKSI as well as some monitoring and evaluation. These will be scaled up in Phase two (2) with the extension of SKSI to meet the information needs of ministries as well as the larger community. Information needs of ministries and the larger community will be evaluated and dissemination of information will include the development of mobile apps for user-friendly access in areas crucial for development such as agriculture and health. Phase two (2) will also include a knowledge awareness and a training campaign on SKSI for all stakeholders.

Summary and Conclusion

In summary the following points need to be made. First the establishment of the SKSI platforms and with the aim of building a knowledge -based society could not have come at a better time. As stated in the Pathway Development for Samoa (Ministry of Finance, 2022) "..*the pandemic COVID 19 affected*

school attendance, highlighting the need for innovative practice and technological solutions (including improved internet connectivity) to ensure uninterrupted access to high-quality education for all." With the heavy reliance on technology due to COVID to ensure business, work and learning continuity these platforms provide much needed support to ensure safeguards from disruptions to teaching and learning.

Endnotes

[1] Makeki online is an IT company in Samoa that offers online platforms services and consulting services in systems and network design owned by Mose Mose
[2] SNBH is a national network linking all ministries, schools and hospitals
[3] Zero data sim cards allow free internet access to selected online sites
[4] NUS has in place TV and radio broadcasting as part of its multimodal approach
[5] Ministry of Education Sports and Culture

References

Cleveland, G 1998, *Digital libraries: definitions, issues and challenges.* Ottawa: Ifla, Universal Dataflow and Telecommunications Core Programme.

De', R, Pandey, N, & Pal, A 2020, 'Impact of digital surge during Covid-19 pandemic: A viewpoint *on research and practice', International Journal of Information Management, [online] 55(102171), p.102171. doi:10.1016/j.ijinfomgt.2020.102171.*

Government of Samoa 2020, *Samoa's 2nd Voluntary National Review Report for Implementation of Sustainable Development Goal*: UN Publications.

Mose, M. Forthcoming. *Report of Status of Digitisation Survey in Samoa.* Makeki Online publication.

Ministry of Finance 2022, *Pathway for the Development of Samoa FY2021/2022- 2025/2026.* Apia Samoa: Ministry of Finance

National University of Samoa. Forthcoming. *NUS Digital Library Concept paper for SKSI.*

United Nations Regional Coordinators Office, 2019. *Samoa Knowledge Society Initiative Product 2019*

United Nations International Children's Emergency Fund,. 2020. *Building Resilient Education Systems beyond the COVID-19 Pandemic: Considerations for decision makers at national, local and school levels* Building resilient education systems beyond the COVID-19 Pandemic: Second set of considerations | UNICEF Europe and Central Asia

World Economic Forum, 2020. *Ten (10) technology trends to watch in the COVID-19 pandemic*. COVID-19: 10 tech trends getting us through the pandemic | World Economic Forum (weforum.org)

RESEARCH REPORT

The Perception of NUS Lecturers on the Impact of Covid-19 on Education

Tara Patu, National University of Samoa

Ioana Chan Mow, National University of Samoa

Abstract

This paper documents the perceptions of lecturers from the National University of Samoa (NUS) with regard to the impact of COVID-19 on the use of online technologies in education in Samoa. The impact of the pandemic worldwide included effects on teaching and learning in Higher Education in Samoa. This research explored the perceptions of teachers about the benefits and challenges of using technology in teaching during COVID-19. The study's findings revealed that lecturers' perceptions were highly positive with high levels of motivation and satisfaction. Also evident was increased usage of technology to teach and deliver courses on online platforms. The findings also indicated both benefits and challenges of online learning as well as support a strong recommendation to continue using technology to provide learning in the event of a further lockdown.
Keywords: Covid-19, Pandemic, Online Teaching Tool, Online Learning

Introduction

The ongoing Coronavirus (Covid-19) pandemic is a major health crisis the world is facing and fighting since 2019. The virus which originated from Wuhan, China rapidly spread across the world to countries in Europe and North America and later in the Pacific Region. In an attempt to monitor and control the spread of this deadly virus, the World Health Organization (WHO) declared the outbreak as a pandemic on 11 Mar 2020 (WHO 2020). Governments of various nations placed restrictions on travel not only across borders but also within their territories to aid in controlling the spread of the Covid-19 virus, thereby resulting in a total shift in the lifestyle of many (Jena 2020). Consequently, this situation has brought challenges in many aspects of human life including education. According to UNESCO (2020), schools and higher education institutions (HEIs) were closed in 195 countries, affecting approximately 1.5 billion learners. By early May, a small percentage of schools and HEI had opened again when only a few countries began lifting containment measures after experiencing declining numbers of cases and deaths. This still left a large number of learners affected by schools being closed (Marinoni et al. 2020).

For Samoa, in response to the Covid-19 global crisis, its government declared a State of Emergency (SOE) that went into effect on 21 Mar 2020 with a decree to enforce restrictions on international and domestic travel, limit public transport, discourage large public gatherings, contain access to health facilities, and under section 8(1) "All schools are to close until further notice" (Tamaalii 2020). The SOE was intended for only two weeks but at the time, increasing cases were recorded in Australia, New Zealand, and Fiji. Thus, the Samoan government extended the SOE for 4 weeks as a precaution to protect Samoa from the deadly virus (Vai 2020). With the extension of the SOE enforced, all schools and HEIs remained closed. However, teaching and learning needed to continue during the lockdown period.

The use of Moodle for blended learning has been a priority at the National University of Samoa (NUS) for the last ten years and included the following developments. In 2017 – 2018, the installation

and upgrade of Moodle LMS through assistance from the Commonwealth of Learning (COL) as part of its Technology enabled learning (COLTEL) initiative (Chan Mow 2017). As well there had been ongoing staff workshops on using Moodle in 2017-2019 offered by various sections of the university. These were further enhanced by Instructional design workshops on Moodle (Chan Mow 2019), followed by an evaluative study on Moodle implementation under the COLTEL project implemented by the Faculty of Science Moodle team.

With the disruptions of classes in November and December 2019 due to the measles outbreak, natural disasters such as cyclones and flooding, and in January 2020 the impending and possible class disruptions due to the corona pandemic, there was an urgent need for NUS to act rapidly, to moving classes online and to the Moodle platform. Moodle was the preferred online platform because it was offered as open source without licensing and could be used both online and offline thus reducing issues of bandwidth.

In the light of the impending COVID-19 pandemic and the need to ensure continuity of programs, the NUS ICT and Computing sections were tasked, by management, with assisting lecturers by putting all courses online on Moodle (NUS 2020). Hence during the lockdown of 2020, NUS had to transition to online learning and the current study is an evaluation of this online learning experience by NUS lecturers.

Problem Statement

As mentioned earlier, the sudden closure of schools and HEIs allowed little time for planning or reflection upon the risks and opportunities the lockdown would bring to Samoa's education system. Teaching and learning had shifted from face-to-face to distance and online learning within a short period of time. To respond to the need to continue teaching activities and to engage and motivate students to adapt to distance learning, Duraku and Hoxha (2020), stated in their study that the best-suited alternative was the use of "technology". This shift, according to Yokozeki (UNESCO 2020) had been evaluated as a great opportunity for teachers and students to increase the level of communication and collaboration, become innovative, and welcome alteration in teaching and learning methodologies. In relation to UNESCO (2020), Ms Lurvnik stated that this has also brought the potential for rapid development in the field of digital education, which, under different circumstances, would have taken decades. Thus, the changes formerly assumed impossible to implement, were after all, achievable.

However, the sudden changes that were implemented quickly also brought about concerns related to technology use, the quality of education, lack of access to the necessary technology, limited knowledge on the use of technological tools, and poor internet connection. (Chan Mow 2019; Duraku and Hoxha 2020; Roy 2020). Henceforth, it is important to recognize the significance of technology on the learning process as well as teachers' motivation to adapt to new teaching environments prompted by the Covid-19 lockdown.

Motivation

The abrupt change in the learning environment experienced and practiced by schools around the globe during the outbreak of Covid-19 brings both benefits and challenges. The overwhelming value, the extent of need, and the dependency rate on technology were clear and apparent during lockdown

periods across the globe (Chazen 2019; Duraku and Hoxha 2020). Countries that declared the use of classroom technology to be extremely low long before present situations have identified difficulties frequently encountered by teachers when undertaking online learning. Such challenges have been found to be linked to several factors which include: availability of and access to technology, the extent of technological skills, and competence level in using technology (Chan Mow 2019; Duraku and Hoxha 2020; UNESCO 2020b). The willingness of teachers to accept change, in this case, the sudden shift from face-to-face teaching mode to online learning, vary and may differ depending on teachers' experiences.

To address this gap, the motivation behind this study was to explore and describe the experiences of teachers during the Covid-19 lockdown and their perspective concerning Covid-19 impact on education in Samoa. The motivation arose primarily from an interest in discovering perceptions of teachers at the National University of Samoa (NUS) during such unprecedented times. This research hopes to evaluate the impacts of Covid-19 on teaching at the NUS from a teacher's perspective.

Context of Research

Several similar types of research have already been conducted in different countries on which this proposed research is based. ICT innovation and its use in educational systems have promoted constructivism, in which student engagement, involvement, and collaborative effort are highly encouraged; consequently, promoting lifelong learning. (Huang et al. 2010; Bindu 2016). The integration of ICT, particularly online teaching tools, in education systems has also allowed teachers to progress and improve professionally (Bindu 2016). A study by Verma & Priyamvada (2020), on teachers' perception of the use of online teaching tools during Covid-19, revealed that 44 percent of their participants found the use of online teaching as "more convenient to assign and revise the homework" and determined that "it is time-saving and convenient". According to Chan Mow (2019), the use of Moodle, learning management, or an online teaching tool in the National University of Samoa "…had a definite impact…" as it offered a different learning style to students and allowed them to access all course resources.

Research Question

This study aimed to explore and describe the experiences of teachers during pandemic lockdown and their perspective on the use of technology for distance learning. Teacher perceptions on technology use will help determine the changes and variations the Covid-19 pandemic has brought about in education in Samoa. The study aimed to answer the following question: What are teachers' perceptions of the impact of Covid-19 on education in Samoa?

Specifically, the objectives of the study were as follows:

1. Investigate the perceptions of teachers on the benefits of using technology in teaching during Covid-19.

2. Investigate the perceptions of teachers about the challenges in teaching during Covid-19.

3. Identify recommendations from teachers on ways to improve educational systems to better adjust to changes experienced during Covid-19.

The anticipation is that the results of this study will generate recommendations to help inform and contribute to preparations by the university should there be another lockdown in the future. The findings can help further any studies around the Pacific nations and particularly in Samoa.

Literature Review

With the sudden shift from face-to-face teaching mode to distance learning, the literature review hopes to identify and categorize how the rapid spread of the Covid-19 virus impacted the field of education around the world. In addition, the literature of this proposed paper hopes to anticipate the challenges universities endured, the benefits experienced by teachers, and finally, recommendations that can help improve adaptation methods adopted by universities.

Acquired from past research on teachers' perceptions of Covid-19 impact on education, the following have been identified and defined as the key terms used in this study are Covid-19: Refers to a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for the virus, and 'D' for disease. Formerly, this disease was referred to as '2019 novel coronavirus' or '2019-nCoV.' Pandemic: Refers to the spread of contagious disease over several countries or the whole world. Online Teaching Tools: Refer to any program, app, or technology that can be accessed via an Internet connection and enhance a teacher's ability to present information and a student's ability to access that information. Online Learning: E-learning, also referred to as online learning or electronic learning, is the acquisition of knowledge which takes place through electronic technologies and media (Tamm 2020).

The next section provides a discussion of some major studies in the field of the proposed research. The range of studies in the literature review is categorized into two themes. One, benefits of online learning in education systems, and two, challenges prompted by Covid-19.

Benefits of online learning

Incorporating technology in the classroom has been increasingly promoted and accepted around the world in recent times. Research in the field of education has been exploring the impact of the use of technology in institutions which has been proven and revealed that technology can assist and have a positive impact on learning and teaching experiences (Dyson et al. 2015; Hung and Yuen 2010). Numerous studies have identified and discussed the benefits of online teaching for teachers and students. Bailey and Lee (2020) reported on the main benefits of online teaching for teachers which were: i) improved pedagogy methods (Riasati et al. 2012; Verma and Priyamvada 2020), ii) empowers teachers to grow and advance professionally (Ho et al. 2001; Bindu 2016), iii) improved flexibility (Riasati et al. 2012). In addition to these benefits, Chan Mow (2019) examined technology-enabled learning through the use of Moodle to achieve blended learning in the National University of Samoa, reported that teachers indicated positive experiences as it has reduced their workload and improved student-teacher interactions; learning experience for students is more flexible as they were able to contribute more to discussions given there was more time to participate in forums and discussions on Moodle.

Learning is no longer limited to cooperation within a single school between teachers and students but is now extended to experts across the globe, thus distance education (Bindu 2016; Mukhtar et al. 2020). Access to information can be done at any time and from anywhere allowing teachers to deliver what they need, when they need it, from where they need it (Bindu 2016; Duraku

and Hoxha 2020). In addition to being independent of location, the advantages of not having to travel long distances make online education a common alternative to traditional classrooms (Bailey and Lee 2020). This has changed the dynamics of learning for most universities, in which teachers incorporate methods to ensure students accentuate their critical thinking skills, collaborative skills, and problem-solving skills (Balanskat et al. 2006; Lunenburg 2011; Pourhossein 2014). In addition, this shift has encouraged teachers to upskill in the field of technology as it is a vital factor in piloting online learning (Bailey and Lee 2020).

### *Challenges of online learning*

While online teaching has a broad range of advantages, when implementing online classes or learning activities, there are certainly challenges that must be considered. Various studies have reported and discussed the challenges associated with online teaching. An overview of findings reported by Duraku & Hoxha (2020) stated the following main challenges: i) technology-related issues (Ibrahim et al. 2013; UNESCO 2020b) and ii) teachers' attitude towards change (Flamholtz and Randle 2008; Ibrahim et al. 2013). Dhawan (2020) highlighted another common challenge in students learning during Covid, which was the lack of engagement. Findings from Chan Mow (2019), clearly stated the main challenges identified by teachers when teaching using online tools are: i) lack of access devices and ii) poor internet connection. Such challenges are the most common issues reported from developing countries (Aboagye et al. 2020; Duraku & Hoxha 2020; Mphahlele et al 2021; UNESCO 2020; Zalat 2021).

A common consequence of the rapid transition to online learning is that educators found themselves teaching and interacting with learners online with very little preparation, professional development and /or institutional support. Many educators lacked the formal training in online learning and were underprepared for what in many cases was a "forced transition" (Brooks and Grajek 2020). Despite such challenges experienced during the Covid-19 pandemic, educators will have to implement creative strategies based on best practices to ensure that academic learning objectives and expectations are met considering the difficulties associated with online learning (Bailey and Lee 2020).

From the scope of the literature, online teaching has both benefits and challenges, which vary in different countries. Education can greatly benefit from the use of online platforms for teaching especially during Covid-19. With the restrictions applied and enforced in many countries, the demand for use of technology to continue learning and teaching, online, has been abrupt and developed rapidly. This has encouraged teachers' professional development, change in pedagogy approach, and improved flexibility for learning and teaching to be happening anywhere, anytime.

Building from these lines of research, the purpose of this research study is to investigate the perceptions of NUS lecturers on the benefits and challenges of Covid-19 on education in Samoa. They will also be asked to provide any recommendations they may have to help inform policymakers, researchers, and communities on any methods to adopt and improve on should there be another lockdown in Samoa.

Figure 1: Framework
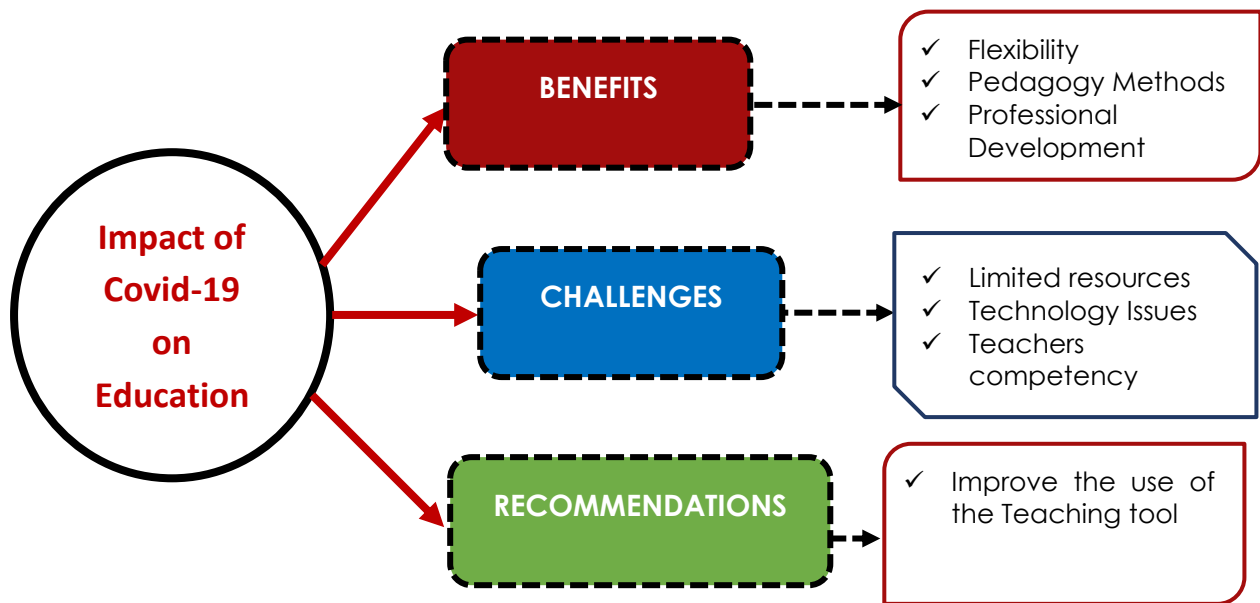
From the literature, both benefits and challenges are identified to be associated with distance learning before and during Covid-19. The challenges experienced by many during Covid-19 are noticeable and apparent particularly due to the sudden changes enforced for many to abide by and follow. This investigation is guided by research questions, the first of which explores perceptions of teachers about the benefits of using technology to teach during Covid-19, the second discusses challenges in teaching during Covid-19, and lastly, identify recommendations on ways to improve educational systems to better adjust to changes experienced during Covid-19. This study is focused on i) exploring the benefits of teaching during the Covid-19 pandemic, particularly: flexibility, professional development, and the opportunity to variate pedagogical approach in teaching, ii) discussing challenges experienced, in terms of teachers' attitudes towards change, competency, and level of comfort in using technology, and technology-related issues, and iii) identifying recommendations to improve teaching from a distance. Findings from this study will be of use and importance for future investigation.

Methodology

The study investigated the experiences of lecturers on benefits and challenges in teaching during Covid-19 using technology. This included identifying the types of technology lecturers used for teaching before the pandemic and during or after the six weeks lockdown Samoa faced. By identifying the challenges lecturers experienced, recommendations were also provided.

Research Design

The study is quantitative and exploratory in nature. "A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (Creswell 2014). The study used a survey to collect data from teachers.

Sample

The target population of this study is the NUS lecturers. The university has three (3) campuses: i) the main campus at Toomatagi, ii) Motootua Campus, and iii) Ocean Campus. There are six (6) faculties (Faculty of Arts, Faculty of Business and Entrepreneurship, Faculty of Education, Faculty of Health Science, Faculty of Science and Faculty of Technical Education, one (1) school (School of Medicine), and three (3) centres (Centre of Samoan Studies, Oloamanu Centre, Centre of Excellence IT). The sampling method adopted by this study is convenience sampling to select participants teaching at the main campus.

Procedures

The lecturers selected for the sample, taught courses before the Covid-19 lockdown and during the lockdown. Before lockdown most of the courses at NUS were taught in face-to-face mode and with some courses taught using blended mode with the use of Moodle. Online teaching at NUS during the 2020 lockdown was by both asynchronous (use of lecture notes, recorded lectures uploaded to Moodle, the LMS), as well as synchronous (use of Zoom, Messenger) technologies supplemented by printed course readers, and Facebook.

A survey was carried out to collect data from the sample of lecturers and a consent form was given to participants to sign for approval for participation in this survey. The consent form implied voluntary involvement and gave assurance that all information obtained is confidential and not to be used to the detriment of the participants.

Data to be collected

The lecturer survey questionnaire consisted of three (3) sections. Section A: Demographics, Section B: Technology, and Section C: Benefits, Challenges, Recommendations

The questionnaire consisted of checkbox questions, a 5-point Likert scale ranging from strongly agree (1) to strongly disagree (5), and open-ended questions. The questionnaire aimed to capture information on technology usage by lecturers, their perception of the benefits and challenges in education that have emerged due to the Covid-19 pandemic, and recommendations for future improvement in online teaching.

In Section A, data collected is general information such as age, gender, village, program, and type of mobile phone owned by the student. In Section B, data collected is focused on the type of technology used by teachers before and during Covid-19, as well as the devices they needed to successfully carry out online lessons. Section C aims to collect the perception of teachers on the benefits and challenges of the Covid-19 pandemic on education along with any recommendations for improvement.

Instrument

As mentioned earlier in the methodology, this study used a questionnaire that was distributed to teachers (Refer to Appendix 1 for a copy of the Lecturer Questionnaire). These items have been adapted from studies by Bailey and Lee, (2020) and Verma and Priyamvada (2020).

Data Analysis

Data collected from the survey were analyzed using SPSS. All items in the survey were analyzed using descriptive statistics to identify the frequency, means, central tendency, and standard deviation and are presented in the form of frequency tables and column graphs. Independent test and non-parametric tests such as chi-square, Kruskal Wallis were used and a confidence level of 95 percent is used for all statistical tests performed.

Results

The results and discussion of this study are reported by question and divided into the following sections: i) nature of participants, ii) technology use, and iii) perceptions towards benefits and challenges of teaching using technology during a pandemic.

Nature of Participants

Participants who completed the survey consisted of a total of 56 lecturers from the six faculties. They were of the age of 23 to 65, with an average of 36.68. There were 30 females and 26 males, and 24 reside in urban areas of Upolu while 32 reside in rural areas. Figure 2 displays the response rate from each Faculty and Figure 3 shows the number of participants and the number of years they have been teaching at the university.

Figure 2: Faculty response rate
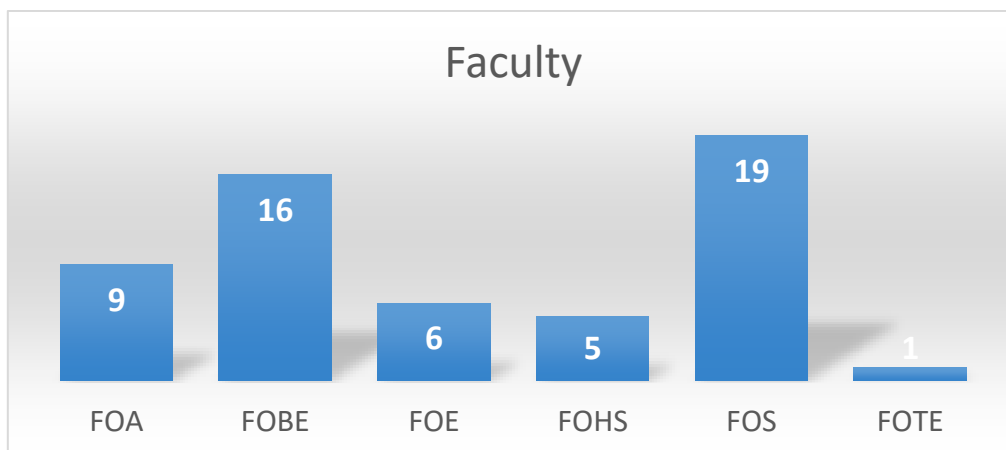
Figure 3: Years of Experience as a Lecturer
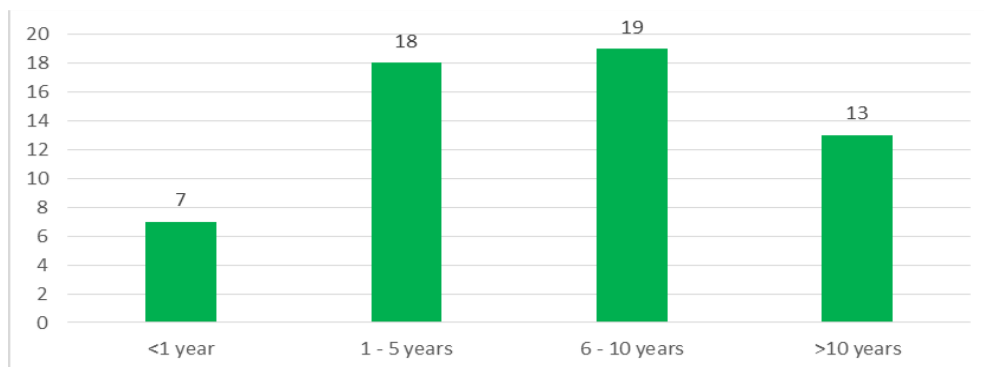
Figure 3 below displays a cross tabulation between gender and age indicating the variance in the number of responses by their age and gender. For age groups 20-29 years and 30-39, more males dominated compared to females; while more female lecturers are of the age group 40 years and above.

Figure 4: Age and Gender Cross tabulation
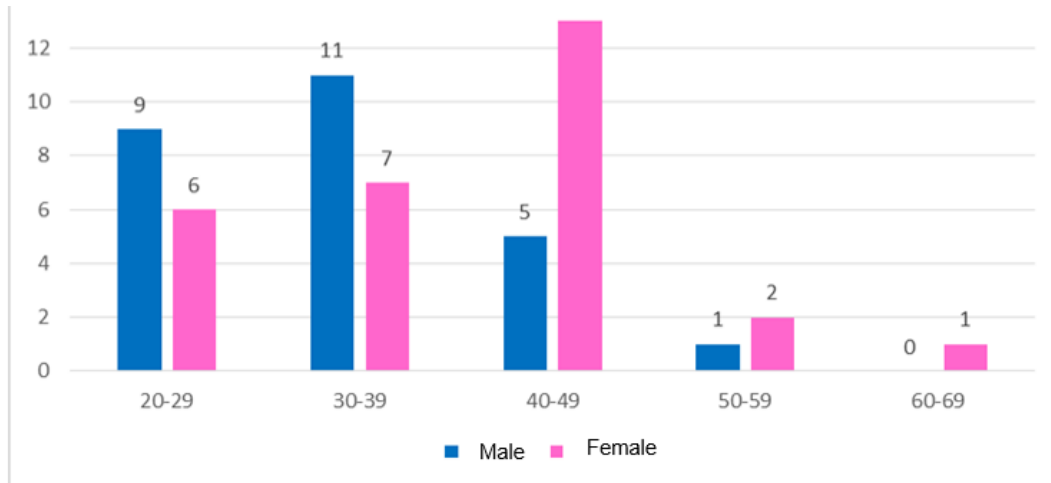
Technology use of Lecturers

A comparison between lecturers' use of technology before the Covid-19 pandemic and their current usage shows (Figure 5) that after the lockdown, lecturers' usage of technology has increased. As UNESCO (2020a), stated in their finding, the situation of Covid-19 has instigated the rapid growth and use of technology to achieve learning from a distance.

Figure 5: Comparison of technology use before and during Covid-19
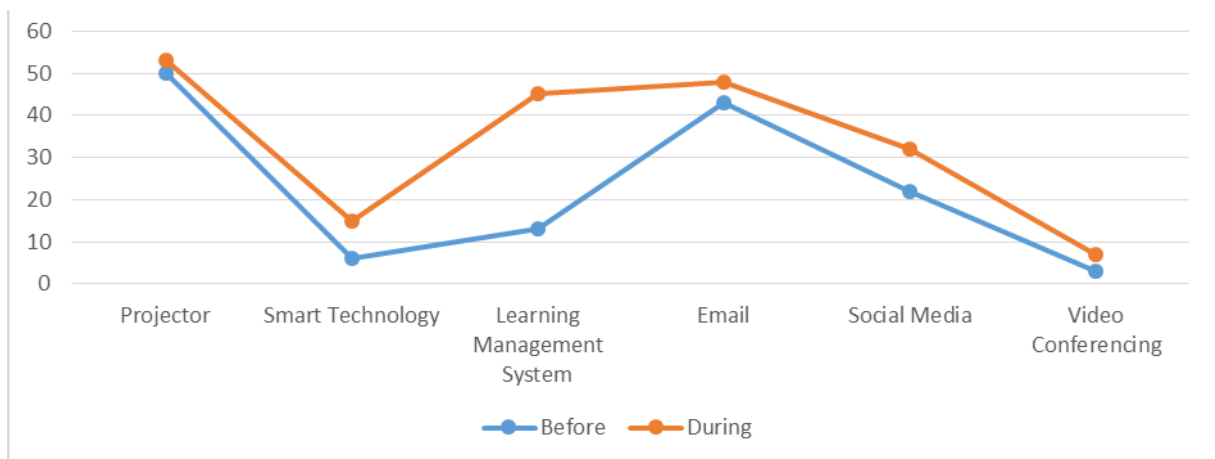
Perceptions on Benefits and Challenges

The statements in this section captured the views of lecturers on how beneficial the use of technology has been for teaching. The 5-point Likert-scale statements ranged from 1= Strongly Disagree to 5=

Strongly Agree. A reliability test was conducted to check the internal consistency of the Likert scale items and the results as shown in the table below indicate a value of 0.934.

Table 1: Cronbach Reliability Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.934	.935	16

Technology use has increased since Covid-19

84.2 percent of the participants indicated that since the pandemic, their use of technology has increased. The response rate shows a mean of 4.14 and a standard deviation of 1.025 with the skewness value of -0.163 indicating the data is highly skewed to the right.

Table 2: Technology use has increased since Covid-19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	5.3	5.3	5.3
	Disagree	1	1.8	1.8	7.0
	Neutral	5	8.8	8.8	15.8
	Agree	24	42.1	42.1	57.9
	Strongly Agree	24	42.1	42.1	100.0
	Total	57	100.0	100.0	

Figure 6: Technology use of lecturers

Mean =4.14
Std. Dev. =1.025
N =57
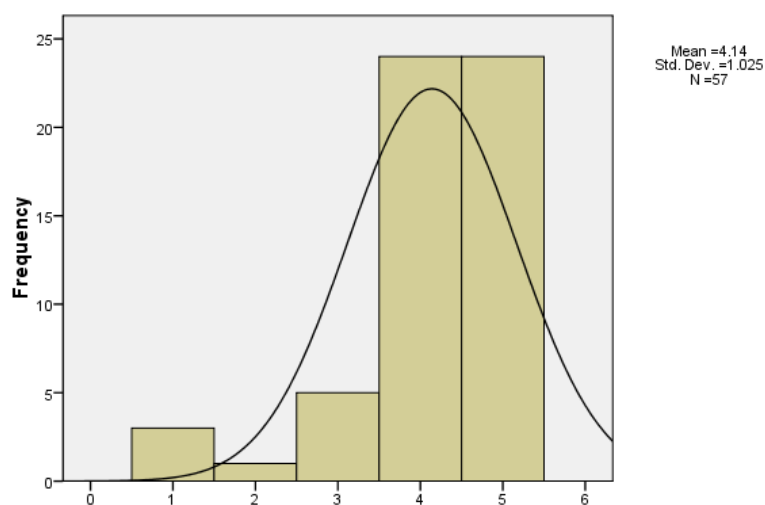
Lecturers' technical skills have increased since Covid-19

There was a mix of responses from participants with 66 percent agreeing their technical skills have increased due to their increase in the use of technology. The response rate shows a mean of 3.75 and a standard deviation of 0.987 with the skewness value of -0.98 indicating the data is moderately skewed to the right.

Table 3: Lecturer's technical skills have increased

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	5.3	5.3	5.3
	Disagree	1	1.8	1.8	7.0
	Neutral	15	26.3	26.3	33.3
	Agree	26	45.6	45.6	78.9
	Strongly Agree	12	21.1	21.1	100.0
	Total	57	100.0	100.0	

Printing Requirements have decreased since the use of online teaching

The majority of participants (61.4 percent) indicated that their printing requirements for their courses have decreased since the use of online teaching tools. 22.8 percent felt their printing requirement has not changed and 14 percent did not agree with this statement. The mean response was 3.84 with a standard deviation of 1.075.

Table 4: Printing requirements has decreased since the use of online teaching tool

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	14.0	14.3	14.3
	Neutral	13	22.8	23.2	37.5
	Agree	15	26.3	26.8	64.3
	Strongly Agree	20	35.1	35.7	100.0
	Total	56	98.2	100.0	
Missing	Missing	1	1.8		
Total		57	100.0		

Workload has decreased since the use of online teaching

Although a high percentage of participants indicated their printing requirements had decreased, a mixed response was reported on their experience with workload. 45.6 percent felt their workload had decreased, 21.1 percent felt their workload was the same and 33.3 percent felt their workload had increased since the use of technology to teach.

Figure 7: Reduced workload since Covid-19
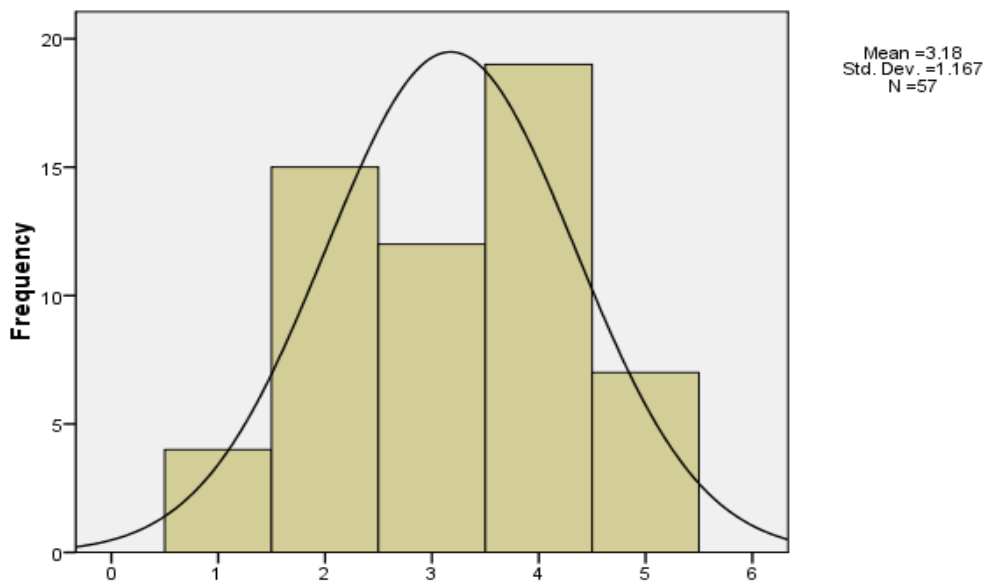
Motivation and satisfaction to use technology

Table 5: Lecturers motivation to use technology for teaching

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	5.3	5.3	5.3
	Neutral	12	21.1	21.1	26.3
	Agree	26	45.6	45.6	71.9
	Strongly Agree	16	28.1	28.1	100.0
	Total	57	100.0	100.0	

Lecturers were asked to rate their motivation towards the use of technology for teaching and the majority (73.7 percent) of the participants responded positively. 66.7 percent rated they were satisfied to use technology for teaching. These findings are consistent with findings by (Bindu 2016; Wright and

Wilson 2011; Zalat et al. 2021) that teacher satisfaction and motivation increases with the use of technology to teach at higher institutions.

Table 6: Satisfaction rate with the technology used for teaching

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	7.0	7.0	7.0
	Disagree	3	5.3	5.3	12.3
	Neutral	12	21.1	21.1	33.3
	Agree	31	54.4	54.4	87.7
	Strongly Agree	7	12.3	12.3	100.0
	Total	57	100.0	100.0	

Preference for Online Tools for teaching

The majority of lecturer responses (70 percent) indicated a preference for online tools for teaching, with a mean response of 3.4 and SD = 1.237.

Figure 8: Preference to online teaching tools
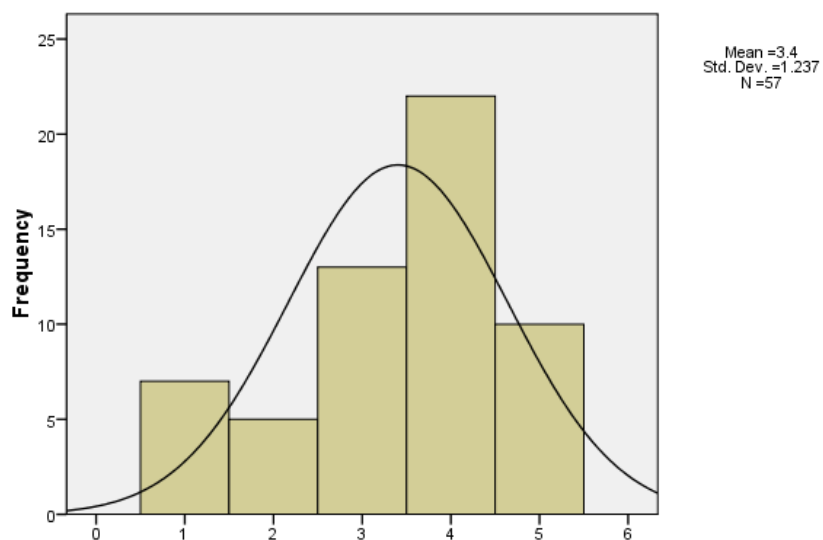
Online learning tools provide more opportunities for learning

Figure 9: Online teaching tools provide more opportunities for learning
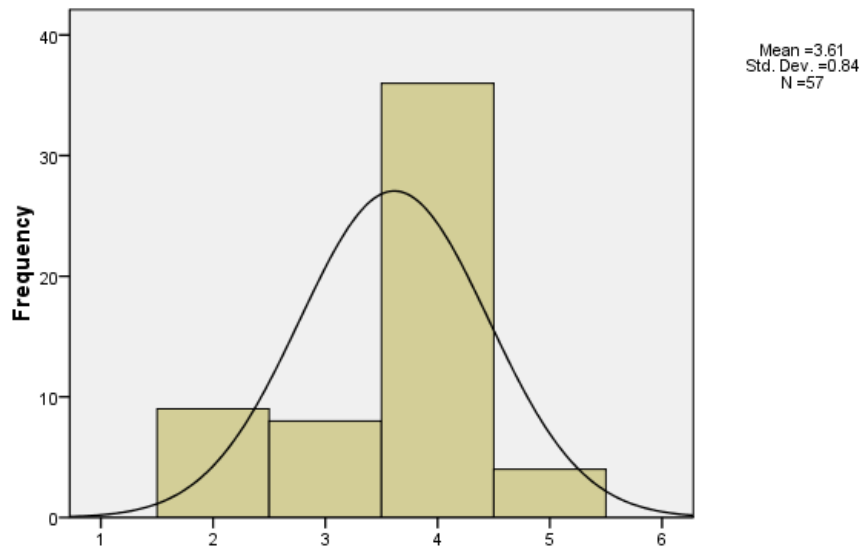
The majority of lecturers also indicated that the value of online tools was that they provide more opportunities for learning.

Technology is an alternative for education to continue if there is another lockdown

Figure 10: Technology is an alternative for education during lockdowns
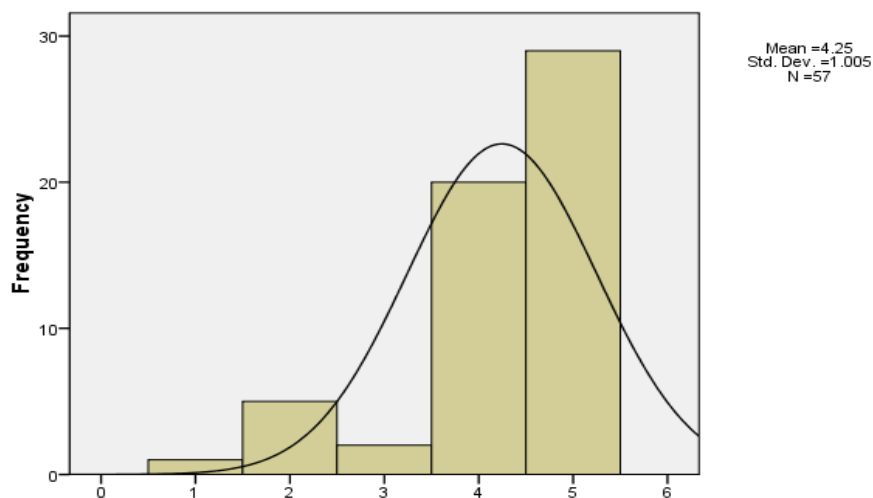
When lecturers were asked to rate their response to the statement "Technology is the alternative for education to continue if there is another lockdown" 86 percent replied positively to this statement with a mean response of 4.25. A high response rate of 86 percent was captured when participants were also asked to rate their overall positive experience of using technology to teach since Covid-19.

Figure 11: Positive experience of using technology to teaching since Covid-19

Mean =4.09
Std. Dev. =0.95
N =57
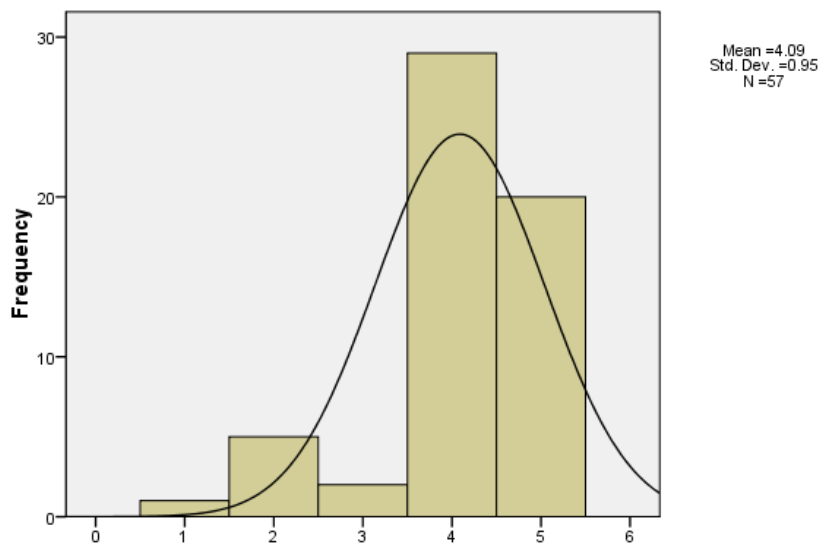
Reliability of Internet service

When participants were asked about how reliable their internet service was while working online, there was a mixed response from lecturers but mostly answered positively with a mean of 3.14 and SD of 1.076.

Figure 12: Reliable internet connection

Mean =3.14
Std. Dev. =1.076
N =57
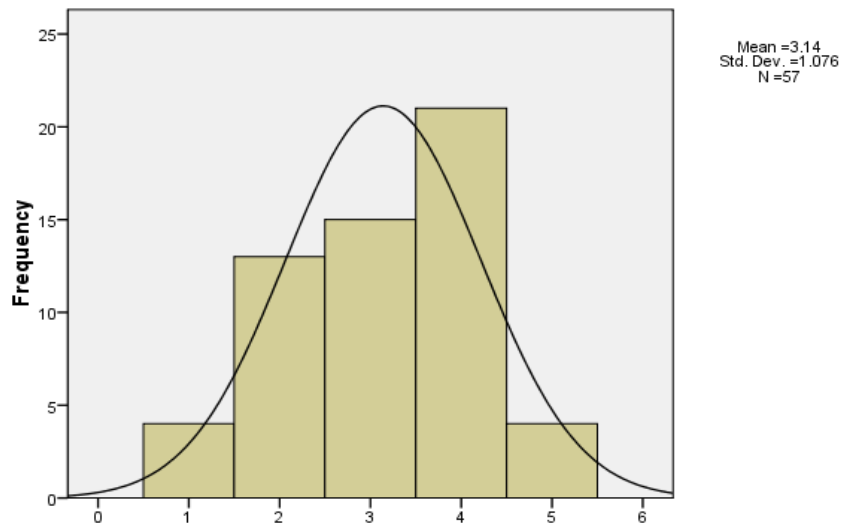
In summary, the perceptions of lecturers on the impact of COVID on their use of technology were quite positive (likert scale responses ranged from 1 = strongly disagree to 5 = strongly agree with a midpoint of 3) with average responses for each item ranging from 3.13 to 4.24.

Table 7: Summary of means for each statement

Item	Mean (likert scale)	Std. Deviation	N
Technical skill has increased	3.73	.990	55
Received training	3.84	.996	55
Receiving support	3.84	.918	55
Printing requirements have decreased	3.84	1.085	55
Workload has decreased	3.24	1.138	55
Motivated to use technology	3.91	.986	55
Satisfied with technology for teaching	3.60	1.029	55
Preference of Online Tool for teaching	3.40	1.256	55
Reliable internet service	3.13	1.090	55
technology is an alternative	4.24	1.018	55
online learning tools provide more opportunities for learning	3.62	.850	55
the positive experience of using technology to teach	4.07	.959	55

An independent t- test to evaluate gender differences of lecturer perceptions of the impact of Covid-19 on their use of technology indicated no significant differences.

An independent t test to evaluate regional differences (urban versus rural) of lecturer perceptions of the impact of Covid 19 on the use of technology showed significant differences in two of the probes: "workload has decreased" (t = -2.168, df = 54, p = 0.035) and "Preference of online tool for teaching" (t = -2.842, df =52.492, p = 0.006). In both cases, lecturers from rural showed less positive perceptions for these statements when compared to lecturers from urban areas. One possible reason for this difference could be the lack of familiarity with technology of lecturers from rural areas.

A Kruskal Wallis test to examine the relationship between age and perception on the impact of Covid-19 on their use of technology indicated that there is no statistically significant difference of age on lecturer perceptions on all statements except "Overall, I have a positive experience using technology to teach during Covid-19" ($X^2 = 9.673$, $df=3$, p = 0.022). In general, the younger lecturers showed more positive perceptions to technology than older lecturers, possibly due to less digital awareness and digital skills of the older lecturers. This is in line with findings of studies such as Fischer et al, (2014).

Benefits of teaching using technology

What benefits do you appreciate the most about the change in teaching mode since the Covid-19 pandemic?

Lecturers were asked to state benefits they experienced during the change in teaching modes during Covid-19 and the majority identified i) reduced workload, ii) convenient, iii) easy and improved method to communicate with students, and iv) change in learning style as the main benefits of using technology to teach. Below are common responses from the lecturers:

"Using Moodle LMS has created an alternative way to communicate and relay information and course content and materials to students. This has allowed students to learn at their own pace and having all course material available and accessible for students all the time"

"I appreciate working from anywhere at any time during Covid-19 lockdown and it is a lot easier for me to communicate with students at any time"

"Online collaboration with students has increased. Less printing jobs are needed as notes are now uploaded online for students to access anytime. The increase in online training available from different academies all over the world"

"Online teaching culture and acceptance has improved for all educators, courses, and disciplines"

"Easier communication between students and myself compared to face to face because students can frequently ask questions online"

"Technology for learning has now become a major part of learning"

Challenges of teaching using technology

Lecturers were asked to state the challenges they experienced during the change in teaching modes during Covid-19 and the majority identified i) lack of access devices for teachers and students and ii) poor internet connection which are similar to findings by Chan Mow, 2019, on the study on "the impact of technology-enabled learning implementation at the National University of Samoa". Similarly, Gillis and Krull (2020), OECD (2020) and Zalat et al., (2021) identified the availability and management of infrastructure as the most challenging during COVID lockdown. Other issues included iii) difficulty in creating online materials for specific courses and iv) plagiarism. Below are common responses from the lecturers:

"Slow internet and no access to the internet at times during the lockdown"

"My course is difficult to teach using online tools as direct face to face communication is highly recommended for effective teaching and learning"

"Students had a lot of issues with internet connection causing a delay in submitting their assignments."

"Internet connection and lack of resources such as laptop"

Conclusion

This research intended to explore and describe the experiences of teachers about the impact of using technology for teaching during the Covid-19 pandemic. In summary, the findings have provided several insights on the benefits, challenges, and recommendations prompted from lecturers' experience during the pandemic. A comparison between the number of technology lecturers used before and after the Covid-19 lockdown Samoa faced indicated an increase in usage. 84.2 percent of participants indicated their technology use for teaching has increased and so has their technical skills. (Riasati et al. 2012). With the use of technology to implement teaching, the workload in general and printing requirements have decreased. (Bindu 2016; Chan Mow 2019). Since the Covid-19 pandemic, positive feedback from lecturers indicated they were satisfied with using technology to teach their course and are motivated to continue using technology, hence; more teachers agree that online teaching tools provide more learning opportunities. (Bailey and Lee 2020). Thus, should there be another lockdown; 86 percent agreed that technology is an alternative to use to continue teaching and learning from a distance. (Riasati et al, 2012). The overall positive perceptions to online learning are similar to the findings of studies by Hampton et al. (2020), Stickney et al. (2019), and Wang et al. (2021).

The major benefits indicated by teachers were: i) increased flexibility, ii) convenience, iii) easy and improved method to communicate with students, and iv) change in learning style and were consistent with the findings of Bailey and Lee (2020), Bindu (2016), Chan Mow (2019), and Donelan (2016). An overall insight of lecturers showed positive perception on their experiences in using technology to continue the teaching process during Covid-19 lockdown. Challenges commonly experienced by lectures were: i) lack of access devices for teachers and students and ii) poor internet connection and were consistent with the findings of Chan Mow (2019), Gillett-Swan, (2017), Mukhtar et al. (2020), and Zalat et.al (2021). Other issues included: iii) difficulty in creating online materials for specific courses and iv) plagiarism.

The findings of this study indicate that, overall, lecturers have a positive attitude towards the use of technology for teaching during the Covid-19 pandemic with more positive perceptions to technology and workload from urban lecturers and more positive attitudes towards technology from younger staff. These are similar to the findings by Duraku and Hoxha (2020).

In the light of the findings, the researcher makes two recommendations for improvement: (1) There is a need to address the lack of access devices to achieve successful learning using technology and (2) there is a need to address the issue of lack of or quality of internet. In terms of future lockdowns, the findings of this study indicate positive affirmation by lecturers of the use of technology and online learning during these disruptions due to pandemics and disaster.

Limitations of the study

This study is not without limitations. Perhaps the main limitation of this study is the sample selected. It would be beneficial if all the NUS lecturers from all three campuses were surveyed as well as a larger sample. Furthermore, this is a cross sectional study and perceptions can change with time and with the use of new online technologies. Hence, there is a need for the repetition of this study over time to gauge changes as the online teaching environment evolve.

References

Aboagye, E, Yawson, JA, & Appiah, KN 2020, 'COVID-19 and E-Learning: the Challenges of Students in Tertiary Institutions', *Social Education Research*, 2(1), 1–8. https://doi.org/10.37256/ser.212021422

Bailey, D, & Lee, AR 2020, 'Learning from Experience in the Midst of Covid-19: Benefits, Challenges, and Strategies in Online Teaching', *Computer-Assisted Language Learning Electronic Journal,* 178-198.

Balanskat, A, Blamire, R, & Kefala, S, 2006, *The ICT Impact Report.* European Communities.

Bindu, CN, 2016, 'Impact of ICT on Teaching and Learning: A Literature Review', *International Journal of Management and Commerce Innovations,* 4(1), 24-31.

Brooks, DC, and Grajek, S, 2020, *Faculty Readiness to Begin Fully Remote Teaching.* Educause Review. https://er.educause.edu/blogs/2020/3/faculty-readiness-to-begin-fully-remote-teaching.

Chan Mow, I, 2017, *Report of the baseline study on technology-enabled learning at the National University of Samoa.* Commonwealth of Learning. http://oasis.col. org/handle/11599/2755

Chan Mow, I, 2019, *The Impact of Technology-Enabled Learning Implementation at the National University of Samoa.* Burnabay: Commonwealth of Learning.

Chazen, D. (2019, October 19). *Positive Effects of Technology on Education*. Verbit. https://verbit.ai/positive-effects-of-technology-on-education-make-a-bigger-impact/

Creswell, JW, (ed.) 2014, *Research Design - Qualitative, Quantitative, and Mixed Methods Approaches,* Library of Congress Cataloging-in-Publication Data, USA

Dhawan, S 2020, 'Online learning: a panacea in the time of COVID[1]19 crisis', *J Edu Technol Syst* 49(1):5–22

Donelan, H 2016, 'Social media for professional development and networking opportunities in Academia', *Journal of further and higher education, 706-729.*

Duraku, ZH, & Hoxha, L 2020, *The impact of Covid-19 on education and on the well-being of teachers, parents, and students: Challenges related to remote (online) learning and opportunities for advancing the quality of education.* Research Gate, https://www.researchgate.net/publication/341297812

Dyson, B, Vickers, K, Turtle, J, Cowan, S, & Tassone, A 2015, 'Evaluating the use of Facebook to increase student engagement and understanding in lecture-based classes', *Higher Education,* 303-313.

Flamholtz, E, & Randle, Y 2008, *Leading strategic change,* Cambridge University Press.

Fischer SH, David D, Crotty BH, Dierks M, & Safran C 2014, ' Acceptance and use of health information technology by community-dwelling elders', *Int J Med Inform.* 83(9):624–35. https://doi.org/10.1016/j. ijmedinf.2014.06.005 PMID: 2499658

Gillett-Swan, J 2017, 'The challenges of online learning: Supporting and engaging the isolated learner', *Journal of Learning Design,* 20-30.

Gillis, A, & Krull, LM 2020, 'COVID-19 remote learning transition in spring 2020: Class structures, student perceptions, and inequality in college courses', *Teaching Sociology,* 48(4), 283–299. doi:10.1177/0092055X20954263

Hampton, D, Culp-Roche, A, Hensley, A, Wilson, J, Otts, JA, Thaxton-Wiggins, A, & Moser, D.K
2020, 'Self-efficacy and satisfaction with teaching in online courses', *Nurse educator*, 45(6),
302-306

Ho, A, Watkins, D, & Kelly, M 2001, 'The conceptual change approach to improving teaching and
learning: An evaluation of a Hong Kong staff development programme', *Higher Education,*
143-169.

Huang, P, Lin, Y, & Hwang, G, 2010, 'Formative assessment design for PDA integrated Ecology
Observation', *Educational Technology & Society,* 33-42.

Hung, H, & Yuen, S, 2010, 'EducatioTamanal use of social networking technology in higher
education',
Teaching in higher education, 703-714.

Ibrahim, A, Al-Kaabi, A, & El-Zaatari, W 2013, 'Teacher resistance to educational change in the
United
Arab Emirates', *International Journal of Research Studies in Education,* 25-36.

Jena, PK, 2020, 'Impact of Covid-19 on higher education in India', *International Journal of Advanced
Education and Research,* 5(3), 77-81.

Lunenburg, F 2011, Critical Thinking and Constructivism Techniques for Improving Student
Achievement. *National Forum of Teachers Education Journal.*

Marinoni, G, Land, H, & Jensen, T 2020, *The Impact of Covid-19 on Higher Education Around the
World.* Paris: International Association of Universities.

Mphahlele, R, Seeletso, M, Muleya, G, & Simui, F 2021, 'The Influence of Covid-19 on students'
learning: Access and participation in higher education in southern Africa', *Journal of Learning
for Development,* 8(3), 501-515

Mukhtar, K, Javed, K, Arooj, M, & Sethi, A 2020, 'Advantages, Limitations and Recommendations for
online learning during Covid-19 pandemic era', *Pakistan journal of Medical Sciences,* 27-31.

National University of Samoa 2020, *NUS Moodle Implementation Workplan*, National University of
Samoa.

Pourhossein, G 2014, 'A detailed analysis over some important issues towards using computer
technology into the EFL classrooms', *Universal Journal of Educational Research,* 146-153.

Riasati, M, Allahyar, N, & Tan, K 2012, 'Technology in language education: Benefits and Barries',
Journal of Education and Practice, 25-30.

Roy, S 2020, Education, Hindustan Times,https://www.hindustantimes.com/education/

Stickney, LT, Bento, RF, Aggarwal, A, & Adlakha, V 2019, 'Online higher education: Faculty
satisfaction and its antecedents', *Journal of Management Education,* 43(5), 509-542

Tamaalii, D 2020, *State of Emergency Declared.* Samoa Government:
https://www.samoagovt.ws/2020/03/state-of-emergency-declared/

Tamm, S 2020, *What is the Definition of E-Learning?* Retrieved from e-student.org:
https://e-student.org/what-is-e-learning/

UNESCO 2020a, *Covid-19 Webinar: A new world for teachers, education's frontline workers.* UNESCO,
https://en.unesco.org/news/covid-19-webinar-new-world-teachers-educations-frontline-
workers

UNESCO 2020b, *Rallies International Organizations, Civil Society and Private Sector Partners in a
Broad*

Coalition to Ensure #LearningNeverStops. UNESCO. https://en.unesco.org/news/unesco-rallies-international-organizations-civil-society-an d-private-sector-partners-broad

Vai, M 2020, 'Samoa Extends State of Emergency for 4 Weeks', *Samoa Global News,* https://samoaglobalnews.com/

Verma, MG & Priyamvada, M 2020, Covid-19 and Teaching: Perception of School Teachers on Usage of Online Teaching Tools. *Mukt Shabd Journal,* 2492-2503.

Wang, Y, Yu, R, Liu, Y, & Qian, W 2021, 'Students' and teachers' perspective on the implementation of online medical education in China: a Qualitative Study', *Advances in Medical Education and Practice,* 12, 895

WHO. (2022, Mar 30). *Coronavirus disease (COVID-19) pandemic*. https://www.who.int/europe/emergencies/situations/covid-19#:%7E:text=The%20first%20cases%20of%20novel,pandemic%20on%2011%20March%202020.

Wright, V, & Wilson, E 2011, 'Teachers' Use of Technology: Lessons Learned from the Teacher Education Program to the Classroom', *SRATE Journal,* 48-60.

Zalat MM, Hamed MS, Bolbol SA 2021, 'The experiences, challenges, and acceptance of e-learning as a tool for teaching during the COVID-19 pandemic among university medical staff', *PLoS ONE* 16(3): e0248758. https://doi.org/10.1371/

An evaluation of the usability of Notepad++ as an Environment for Java Programming at the National University of Samoa

Elisapeta Mauai, National University of Samoa

Edna Temese, National University of Samoa

Foilagi Faamausili, National University of Samoa

Tusipepa Malaga, National University of Samoa

Fiafaitupe Lafaele, National University of Samoa

Agnes Wong Soon, National University of Samoa

Tara Patu, National University of Samoa

Ioana Sinclair, National University of Samoa

Vensel Chan, National University of Samoa

Abstract

This paper presents a usability evaluation of Notepad++ (With Jdk Compiler) as an environment in learning Java Programming at The National University of Samoa (NUS) Foundation Level. The Foundation Computer Studies (HCS081) course is a servicing course to all NUS foundation programs in which introduces the programming component. The course instructors have observed that the common denominator of failure is largely due to their difficulty to get acquainted with the Integrated Development Environment (IDE) used. Students frequently struggled with learning and familiarizing themselves with the IDE used, losing focus on how to learn the logical sequence of a program, and the programming language itself. Consequently, this study aims to evaluate the usability of simple, open source tool; Notepad++ as the alternative programming environment, to teach and learn Java programming at the foundation level. The usability of the simple open source surveyed 178 Foundation students. The findings shows that there was high usability indicating the feasibility of Notepad as the preferred Java Development Kit (JDK) for teaching and learning Java in the Foundation level classes. In addition results from this study act to inform future research and best practice relevant in the NUS programming courses.
Keywords: Integrated Development Environment (IDE), Programming, Notepad++, Java Development Kit (JDK)

Introduction

It is often said that "Learning to program is at the heart of learning Computer Science..." (Malmi et al. 2005). Efforts are being made by universities in developing countries to ensure that their graduates are not left behind in the competitive global information society; thus have adopted computing degree programs in almost all their universities (Dasuki et al. 2015). The goal in teaching computer programming is to develop in students the capabilities required of a professional software developer. Unfortunately, learning to program is difficult (Kunkle and Allen 2016). Computer programming is a cognitively challenging subject and appears to be the most difficult aspect to master in dealing with computers (Malliarakis et al 2014).

Numerous studies have been conducted on the difficulties of beginner programmers in learning as well as their having poor attitudes towards programming (Chan Mow 2012b; Flowers et al 2004; McIver, 2001; Thompson 2004). Research in computer education in developing countries has shown that one major cause of the low interest and high dropout rates in computer science degree programs is the difficulty and high failure rate in learning programming (Sarpong et al 2013). To this end, measures to support the teaching and learning of students enrolled in programming courses are critical to the discipline.

In general, the high failure of students who first take computer programming as a core course or a minor in their respective programs can be influenced by various factors. Such factors include lack of problem-solving and analytical skills; logical and reasoning; programming planning; algorithmic skills; pedagogical and teaching methodologies; conceptual difficulty of various elements of the curriculum; mathematics and previous academic backgrounds; cognitive factors, personality and learning styles; and the complexity and poor design of programming environments used (Kölling et al 2003). Since programming is the basic skill required of computer programmers, the negative impact of these factors may have harmful consequences on the learners' attitude towards the field, and often discourage them to take advanced programming courses. On the other hand, results of a study at NUS (Mauai and Temese 2012) indicated that prior knowledge in English, Mathematics and Computing are strong predictors of performance in Foundation Computer studies.

At the National University of Samoa, students who are enrolled in computing as a major are expected to undertake programming along with other computing subjects in the areas of applications, networking, hardware, and information management. At the Foundation level, HCS081 (Introduction to Computer Studies) is an introductory computing course which is compulsory in almost all programmes. In this introductory course, students learn the basic hardware/software components of computers, file management utilities, office applications such as word processing, spreadsheets, databases, as well as basic programming. The programming component of the course uses Java as the programming language with the JBuilder software as the Integrated Development Environment (IDE). The programming component covers an introduction to programming concepts such as classes, objects, variables, methods, and condition executions using object-oriented programming (OOP) approach.

In the past few years, it has been observed that most of the students failed the course, due to their poor performances in the programming component. Lecturers and tutors for HCS081 discovered that the majority of students were frequently struggling in trying to learn and familiarize themselves with the programming environment used, losing focus on how to learn the logical sequence of a program, and the programming language itself.

Previous studies showed evidence that IDEs are too often functionality-oriented and difficult to learn, use, and master at the introductory level (Kölling et al, 2003). Such challenges and difficulties result in lower student retention and difficulty in passing programming courses. Learning how to use menu-driven programming environments such as JBuilder may take some time for the average student to comprehend,

and generally ended up learning the environment, but not grasping the essential concepts of programming (Horstmann 2019).

In Samoa, three of the few studies on computer programming were conducted (Chan Mow 2006; Chan Mow 2008, Chan Mow 2012b) at NUS. The first study by Chan Mow (2006) evaluated the effectiveness of CABLE (Cognitive Apprenticeship Based Learning Environment) as a teaching environment for programming within a university context. The second study (Chan Mow 2008) investigated issues in the instruction of computer programming. The third (Chan Mow 2012b) aimed to investigate specifically the types of errors students make in programming; however, it did not identify areas/topics of difficulty, deficiencies in learning support, or recommendations for improving the learning environment from the students' point of view.

Furthermore, an investigative study on NUS Computer Programming Students' Perceptions of their computer programming experience by Chan Mow (2012a) indicated that despite their high motivation on their programming experiences, students found programming difficult, and also involved a lot of work and readings. The study also identified the fact that the students' level of engagement is inadequate, which seemed to indicate that students did not feel sufficiently engaged in their programming environment.

Research Objectives

This study was initiated to investigate various ways to solve the outlined problem. Moreover, an analysis of issues and challenges could inform teaching practice in terms of teaching and learning approaches specifically in selecting appropriate learning tools.

In this study, we explored the usability of some of the simple tools that are freely available, that could be used as alternative environments in learning Java programming. The integrated environment, (as we would like to call it), includes the Notepad++ code editor application, and the Java Development Kit (JDK) compiler. The Notepad++, was used by students to compose and edit their computer programs. The programs were then to be compiled and then executed by the JDK or the compiler using the MS-DOS command-based shell. The JDK translates the Java Language into the machine code. The JDK comprises of the Java Virtual Machine (JVM) compiler that does the compilation process. These two separate applications made up the integrated environment that our study evaluated.

The study was implemented at NUS for the first semester in 2019 to all the students who were enrolled in HCS081. The evaluation included a series of basic programing tasks that was performed by students throughout a period of four weeks for that semester. Throughout the four-week timeframe, students initially spent some time learning and familiarizing themselves with the Notepad++ and JDK environment. Hence the research questions are:

1. What are the students' perceptions in terms of skill- level and usage of programming languages?
2. How usable is Notepad++ with the JDK Compiler as tools to learn basic Java programming in terms of usability, effectiveness, and satisfaction?

Accordingly, the main goal of this research is to explore the possibility of using Notepad++ and JDK compiler as an alternative programming environment to learn Java programming at introductory level by evaluating its usability. It also aimed to Identify of issues and challenges in learning programming using our proposed learning environment, to provide valuable feedback that can be used to revise and improve the curriculum, teaching strategies and learning support specifically at the Foundation level. Findings from the study will also recognize if using such integrated environment for learning Java programming at the introductory level is usable or not.

Usability Criteria

Usability, as defined in International Organization for Standardization (Guidance on Usability 2018), is: "the extent to which a product can be used by specified users to achieve goals with effectiveness, efficiency and satisfaction in a specified context of use." An elaboration of this in terms of software usability is: "software is usable when the user can achieve their task (effectiveness), with a minimum amount of resources (efficiency), and that the system is pleasant to use (satisfaction)". In this context, the more usable a system is, the more possible it is for a user to continue using the system efficiently over a long period of time.

Historically, the concept of usability has been defined in multiple ways, but usually on one of the following bases:

i. Semantics: in this case, usability of the syntax language describes a meaning and is easy for user to understand and processes.
ii. Features: here, usability is equated to the presence or absence of certain features in the user interface such as Windows, Icons, Menus or Pointing devices.
iii. Operations: where the term is defined in terms of performance and affective levels manifest by users for certain task and environmental scenarios.

This study takes on the operations approach. Shackel (1991), as the major developer of the operational approach defined usability as the artefact's capability, in human functional terms, to be used easily, effectively and satisfactorily by specific users, performing specific tasks, in specific environments. The essence of the operation approach definition is that it explicitly places usability at the level of the interaction between users and the artefact. Usability therefore refers not to a set of interface features, but to a context-dependent measure of human-computer interaction. The operation approach is interrelated to user-based (Dillon 2001). User-based or testing an application with a sample of users performing a set of pre-determined tasks is generally considered to yield the most reliable and valid estimate of an application's usability.

The Usability: definitions and concepts (2015) explains how usability can be specified and evaluated in terms of user experiences with the system and how satisfied they are in using the system. It also emphasizes that usability is dependent on the context of use and that the level of usability achieved will depend on the specific circumstances in which a product is used. The context of use consists of the users,

tasks, equipment (hardware, software and materials), and the physical and organizational environments which may influence the usability of a product (see Figure 1 below).

Figure 1: Usability Framework
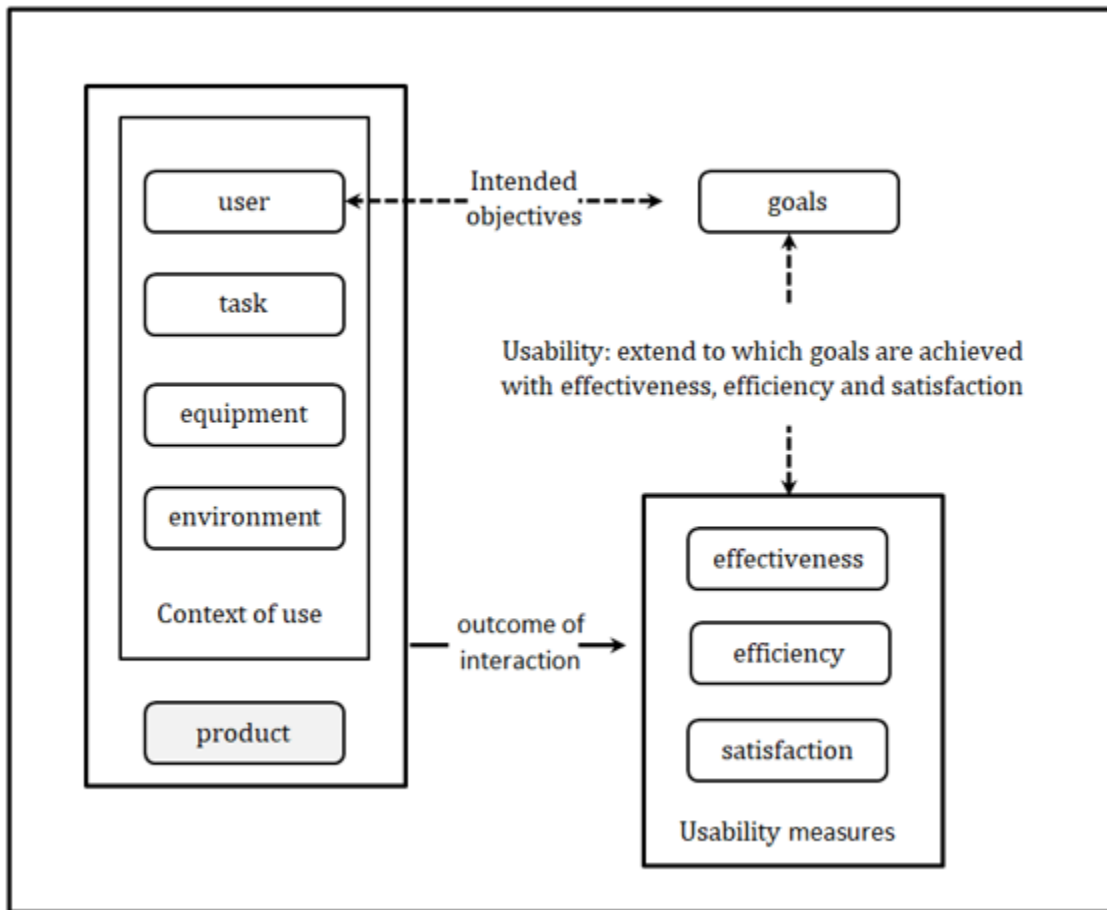
The critical point in terms of usability of a programming environment is the extent to which a user can transfer his or her existing knowledge to the tool. In terms of programming environments, students should not have to invest a large amount of time obtaining, installing, and learning to use a tool before they can begin to learn programming (Van-Haaster and Hagan 2004).

In the IEEE's Software Engineering Body of Knowledge (SWEBOK), (Bourque and Fairley, 2004) specified that one of the goals that a software development environment (which includes IDEs) should meet is to reduce the cognitive load on the developer in order to free the developer to concentrate on the creative aspects of the process. Unfortunately, there is evidence that these goals are often not met in practice and that poor IDE usability is a culprit. IDEs are described by many developers as difficult to learn and use (Seffah and Rilling 2001). Printed documentation for developers, online help, and related training materials are often presented in language that is precise but esoteric and difficult to understand (Seffah 1999).

In a study on the usability of Eclipse for novice programmers, it was found that Eclipse has many powerful features that can assist both expert and novice programmers and Java instructors (Storey et al 2003). However, they believed that Eclipse can be improved to offer enhanced support to novice programmers as well as instructors. Specifically, the Eclipse user interface may be overly complex and that this complexity could pose a barrier to learning. Furthermore, they have identified that in terms of application development, it is hard to eliminate the problem of IDE dependence. When a student's productivity becomes tied to a certain IDE, it is a serious liability (McIver 2002). A shift in school curriculum standards or a change of programming environment from one tool to another can precipitously affect students' productivity and their knowledge of the previous environment used. At the introductory level, by using an open source application such as Emacs or Notepad++, we are not building a dependency on any IDE's specific features, and students can easily reuse their knowledge and adapt it to a new learning environment.

A lot of undergraduate courses in universities today are moving towards teaching Object Oriented Programming (OOP) as the first programming subject introduced in first year students. The abstract concepts involved in understanding OOP and the lack of appropriate teaching aids make OOP hard to teach in the classroom (Kölling et al 2003). In a recent study by Bettini and Crescenzi (2015), they introduced Java--. Java -- or Java decrement is an application that allows students to learn programming by using smaller version of Java without object-oriented features. Using this approach, it combines the "structured programming before object oriented programming", hence, students can focus on the basic programming concepts without being distracted by complex constructs. They further stressed that when students are still new to Java and are just beginning to explore the language, keeping things simple with a text editor and a compiler helps them focus on the basics. At this stage of learning, the student wants to spend most of his/her time becoming intimate with the nuances and fundamental concepts of the language. Once they've become comfortable with the basics, then they can use an IDE to help them with the next phase of learning.

Methodology

The study is quantitative in nature through the use of survey questionnaires to collect data. The survey instrument consisted of two parts:

  i.   General Demographics and a Pre Assessment Questionnaire
  ii.   Students Perceptions/Attitudes towards the efficiency, effectiveness and satisfaction of the Learning Environment

Population and Sample

The target population included all students enrolled in HCS081 (Foundation Computer Studies) in Semester one (1), and Semester two (2), in 2019. The time frame of the user-study was four (4) weeks for each semester. This coincided with the last four weeks of each semester which were allocated to the Java programming component of the HCS081 course. Throughout the four weeks' time-frame, students were exposed to, and experimented with Notepad++ and JDK through tutorials and practical programming activities.

Procedures

The evaluation questionnaire which was given out at the end of the programming component evaluated the usability of the environment based on user's perceptions after they learnt and experimented with the environment.

The allocated tasks and programming activities covered the basic concepts of Java programming focusing on object-oriented approach. This included simple variable declaration, assignment statements, simple arithmetic calculations, conditionals, and output statements.

The questionnaires developed gathered data measuring the dependent variables of students' perceived level of satisfaction, effectiveness, and efficiency, in relation to the independent variable which was the learning environment. In addition to the questionnaires, students' performance in programming tasks were also recorded and evaluated, for further analysis but is not included in this study's findings.

Data Analysis

As previously stated, the data that was collected in this study were in the form of answered questionnaire items, falling into the interval scale of measurement. Data analysis was carried out using a combination of analysis software including MS Excel and SPSS.

Statistical analysis was conducted using SPSS with the data primarily being descriptive statistics. Reliability analysis was conducted using alpha-Cronbach indexes.

Results and Discussion

The results of the analysis are reported in the sections in the order within which they are located in the questionnaire. In the case of multiple response items, the findings are reported as percentages or proportion of the total sample of 178.

General Demographics and a Pre Assessment Questionnaire

Nature of Study Participants

There were 178 total survey respondents enrolled in the various foundation programs with 82 from Foundation Certificate in General (FCG), 62 from the Foundation Certificate in Commerce (FCC) 15 from the Foundation Certificate in Science (FCS), 12 from the Foundation Certificate of Art (FCA), one from Certificate of Commerce Study (CSS) and ten from Diploma of Maths (DipMaths). Most respondents were in the age range of 16 to 19 years old whist 12 were in the age range of 20-23. In terms of gender, respondents were predominantly female with 26 percent male and 74 percent female.

Users Computer Skills

Asked: How often do you use a computer? Responses indicated that 39 percent of the participants use computer several times a week, 28 percent uses computers every day and 13 percent use computers several times a day and most of the day. Ten (10) percent claim they use computer once or few times a

month, seven (7) percent use computer several times a month whist three (3) percent use computer once a week.

Figure 2: Computer use
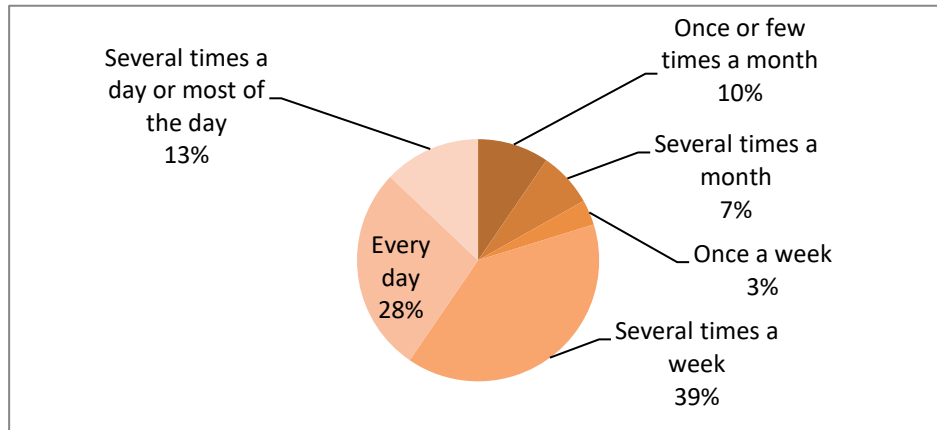
Self-evaluation of computer knowledge and skills.

An evaluation of computer knowledge and skills indicated that 44 percent of the respondents rate their general level of computer knowledge and skills as good enough; 23 percent thought they are at the basic or introductory level while three percent indicated that they are computer wizards. On the other hand, 29 percent indicated they have basic and introductory computer knowledge and skills and one percent claimed that they knew nothing about computers.

Figure 3: General level of computer knowledge and skills
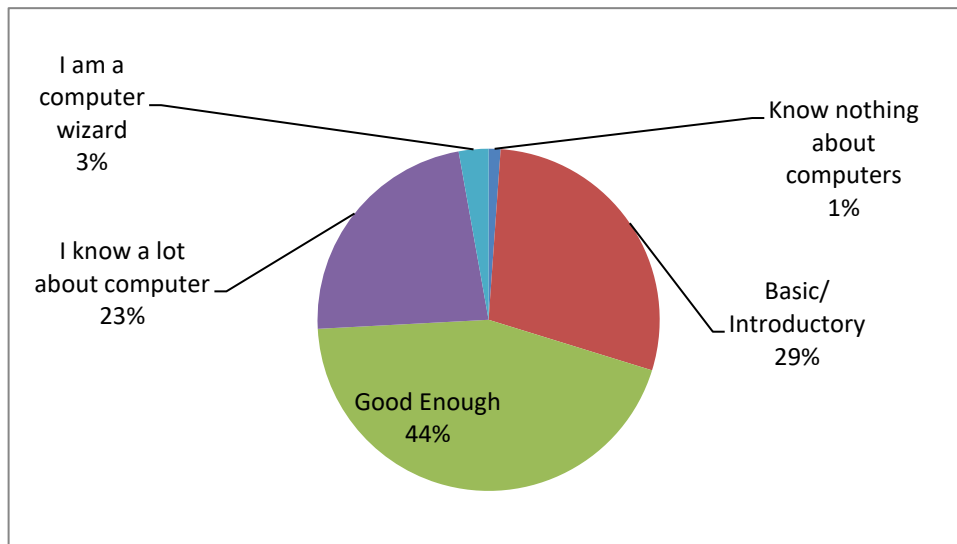
Familiarity with programming languages.

In terms of familiarity with programming languages, 93 percent of the participants are familiar with Java, 11 percent know C++, seven (7) percent said they are familiar with Visual Basics, four (4) percent indicated familiarity with Java Script language, and one (1) percent indicated they were familiar with Python programming language. As alluded to earlier, the Java language has been taught in Secondary schools as well as at University level, thus many who took computer courses have background knowledge in the Java content.

Figure 4: Familiarity with Programming
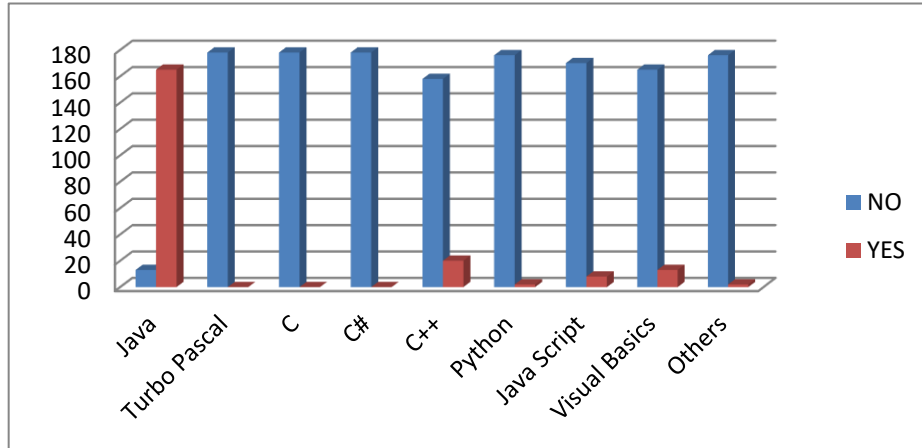
Self-assessment of knowledge of computer programming in Java

A self-assessment of the general level of computer programming in Java, revealed that five (5) percent of the participants claimed they are Java programming wizards, six (6) percent indicated they know a lot about Java programming, and 28 percent of the respondents claim they rate their general level of Java as good enough. Majority of respondents claim having a basic or introductory level of Java background (54 percent) whist seven (7) percent indicated they knew nothing about Java programming. The results indicated that the majority perceived themselves as knowledgeable on the basics of Java programming.

Figure 5: General level of Java programming

Category	Percentage
I am a Java Programming wizard	5%
I know a lot about Java Programming	6%
Good Enough	28%
Basic/Introductory	54%
Know nothing about Java Programming	7%
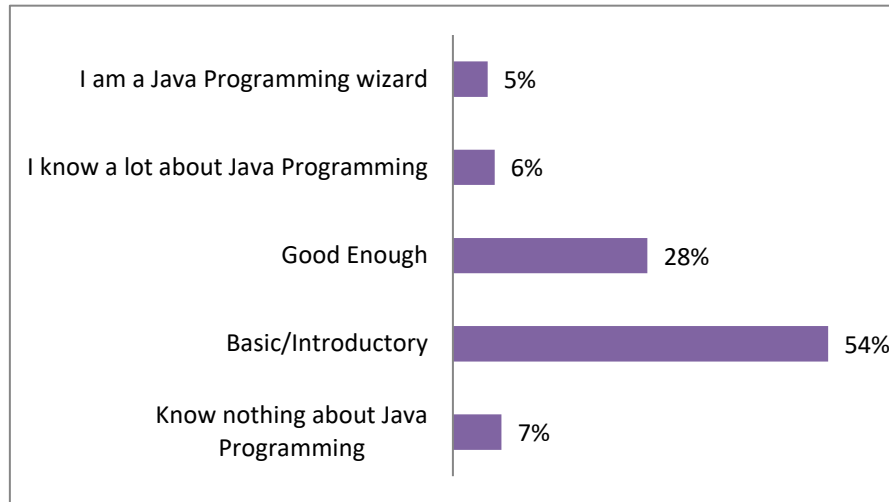
Prior use of JBuilder IDE and Notepad++

Respondents were asked whether they had ever used the JBuilder IDE and the Notepad++ before. Respondents indicated that 61 percent used JBuilder IDE before while 48 percent of the respondents used Notepad++ before. This is to be expected as the JBuilder IDE is used in the Secondary schools and the Foundation Java Programming language and the current cohort are using the Notepad++.

Figure 6: Use of JBuilder IDE and Notepad before

Used Jbuilder IDE Before	61%
Used Notepad++ Before	48%
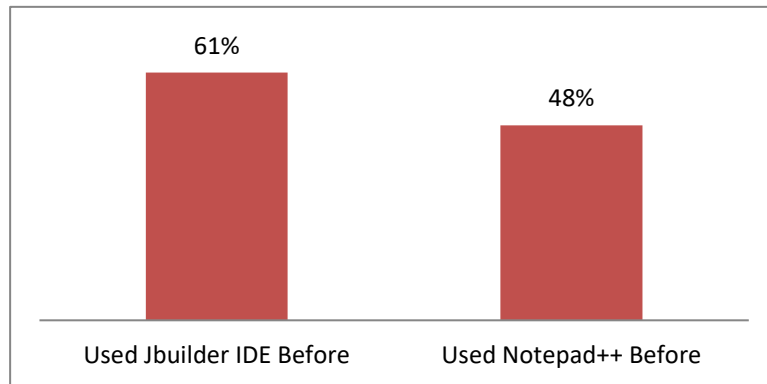
Self-assessment of the likelihood the student take a programming course

The probe on the likelihood that respondents were to take a programming course, showed that the majority (61 percent) were likely to take a programming course with 19 percent indicating that they were very likely to take programming course. 15 percent of the participants were unlikely to consider being interested, with 5percent claiming as very unlikely to take a programming course at all in the future. Such responses are useful in guiding decisions on strategies to boost the interest of students in taking and learning programming languages.

Figure 7: Likely to take a programming course
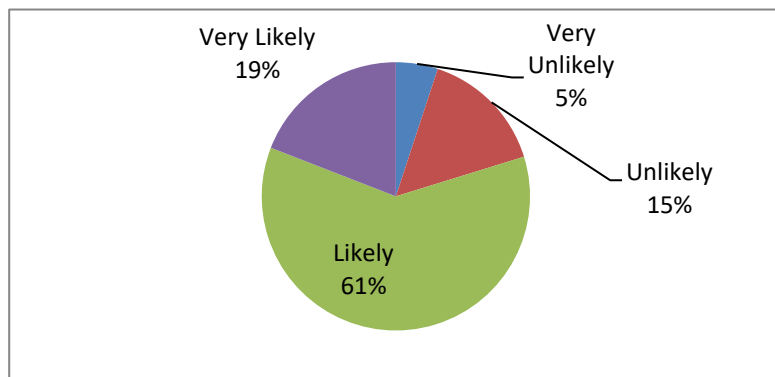
Future career aspirations for jobs that involves computer programming or software development

The most common responses were likely (53 percent) followed by very likely (23 percent), unlikely (17 percent) and with seven (7) percent of respondents indicating that they were very unlikely to pursue a career involving Computing Programming.

Figure 8: Likely to Pursue a computing programming related job
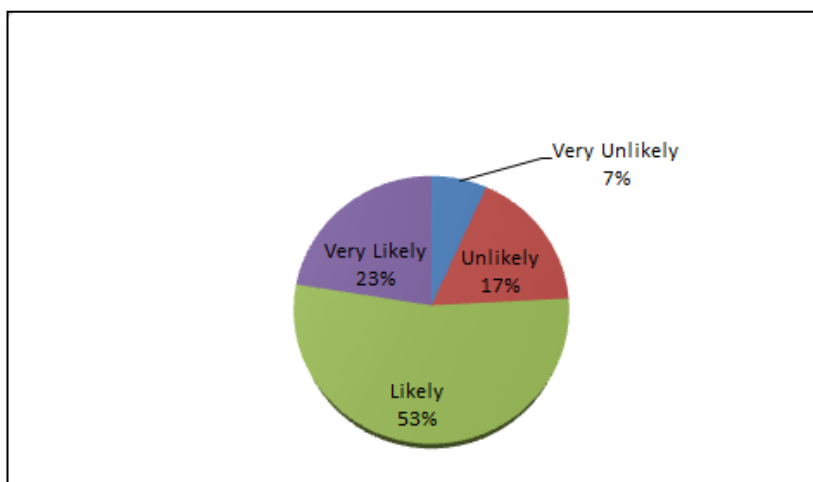
Students' perceptions of the efficiency, effectiveness and satisfaction of the Learning Environment

The responses on student perceptions on usability evaluation (PUEQ) show how students rated the usability of the Notepad++ environment after they have learnt and experimented with that environment. PUEQ was developed with 6 question items grouped under each category of effectiveness, efficiency and user satisfaction consecutively. Responses were rated using five options on a Likert scale ranging from Strongly Disagree (1), Disagree (2) Neutral (3) Agree (4) Strongly Agree (5). Table 1 shows 3 sample questions under these categories.

Table 1: Sample questionnaire items of effectiveness, efficiency and user satisfaction

			1	2	3	4	5	
Q1	**PQ1. I can effectively complete my work using this environment**	strongly disagree	○	○	○	○	○	strongly agree
Q10	**PQ10.I was able to efficiently complete my work using this environment**	strongly disagree	○	○	○	○	○	strongly agree
Q16	**PQ16.My general level of satisfaction with this learning environment was**	strongly disagree	○	○	○	○	○	strongly agree

Reliability is the consistency of test results obtained when a test instrument is applied to different testing environments and yield the same results. The PUEQ questionnaire was tested through evaluating Cronbach's alpha minimum reliability value of 0.07 on 178 respondents. If the table value is > 0.07 it indicates a high level of reliability of the instrument and the items tested. Derisma (2020) tested the reliability on a usability analysis using the System Usability Scale (SUS) of the Codesaya learning site and confirmed that the table value of 0.968 was greater than 0.07. Therefore, the SUS questionnaire is highly reliable.

Table 2: Reliability statistics

Measures	Items	Mean	Std. Deviation	Cronbach's Alpha
Effectiveness	6	3.80	0.84	0.899
Efficiency	6	3.77	0.85	0.920
Satisfaction	6	3.70	0.84	0.897

From Table 2, effectiveness, efficiency and user satisfaction have Cronbach Alpha table values of 0.899, 0.920 and 0.897 consecutively. All these table values are greater than 0.07. Table 3 shows the overall value of Cronbach's Alpha as 0.962 for all the 3 items thus confirms that the PUEQ questionnaire is highly reliable.

Table 3: Overall reliability statistics

Cronbach's Alpha	N of Items
.962	3

For survey items probing the effectiveness of Notepad++, students mean ratings per item ranged between 3.66 to 3.92 as shown in Table 4. This shows that the majority of students have strong positive perceptions of Notepad++ as an effective Integrated Development Environment for learning and completing Java tasks. With student perceptions yielding high means on probes on useful error messages, effective completion of work and shown interests to use the environment frequently, this points to strong positive perceptions on the effectiveness of Notepad++.

Table 4: Comparison for Means

Measures	Items	Item Mean	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Effectiveness	1. I can effectively complete my work using this environment	3.88	2.4	2.4	3.1	3.9	4.6
	2. I believe I became productive quickly using this learning environment	3.80	1.4	2.6	3.2	4	4.6
	3. The environment gives error messages that clearly tell me how to fix problems	3.92	2.3	2.5	3.3	3.8	4.4
	4. I found the various functions in this environment were well integrated	3.70	1.9	2.9	3.3	3.9	4.8
	5. I was satisfied with the environment's capabilities in facilitating the completion of the allocated task in this session	3.66	1.7	2.8	3.3	4	4.7
	6. I think that I would like to use this environment frequently	3.86	1.4	2.9	3.2	3.9	4.6

Analysis of survey items which evaluated the efficiency of Notepad++, in Table 5 showed means for item responses ranged from 3.67 to 3.94 which again indicated fairly positive responses in terms of the efficiency of Notepad++. Thus these results indicated how easy it was to use this environment, the level of efficiency and how quickly it took to complete their work and satisfaction with the amount of time it took to complete tasks using the Notepad++ environment.

Table 5: Mean of efficiency

Measures	Items	Item Mean	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Efficiency	7. Overall I was satisfied with how easy it was to use this environment	3.67	1.9	2.6	3.4	4	4.7
	8. I was able to complete my work quickly using the environment	3.76	1.5	2.6	3.3	3.9	4.7
	9. I felt comfortable using this learning environment	3.94	1.2	2.4	3.1	3.8	4.6
	10. I was able to efficiently complete my work using this environment	3.69	1.2	2.5	3.3	4	4.7
	11. Overall, I was satisfied with the ease of completing the task in this learning environment	3.81	1.7	2.3	3.2	4	4.6
	12. Overall, I was satisfied with the amount of time it took me to complete the tasks in this scenario	3.74	2.3	2.6	3.3	4	4.6

An examination of user satisfaction of Notepad++, the respondents mean rating per item ranged from 3.58 to 3.87 as given in Table 6. This generally indicates that student views of satisfaction are fairly positive with respect to environment for teaching and learning Java Programming at the Foundation Level, they were fairly confident to use this environment and felt quite engaged in using Notepad++ during the task activity.

Table 6: Means of user satisfaction

Measures	Items	Item Mean	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Satisfaction	13. It was easy to learn to use this learning environment	3.67	2.1	2.4	3.3	3.9	4.6
	14. I felt engaged with this learning environment during the task activity	3.71	2.2	2.6	3.2	3.8	4.6
	15. I was satisfied with how easy it was to use this learning environment	3.64	1.9	2.7	3.2	4	4.6
	16. My general level of satisfaction with this learning environment was	3.58	1.9	2.6	3.2	4	4.7
	17. Please rate your level of confidence in using this learning environment	3.71	1.1	2.6	3.2	3.9	4.6
	18. I would recommend using this environment in teaching and learning Java Programming at the Foundation Level	3.87	1.8	2.7	3.2	3.8	4.3

Figure 9: Overall perception of Notepad++
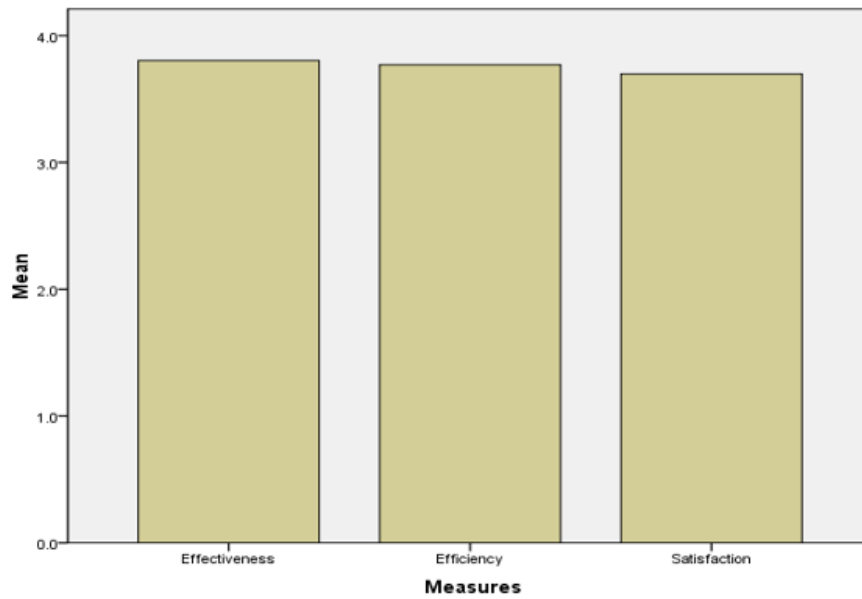
An overall analysis of the data items was done using an interpretation of mean results of each individual item as discussed. The mean result on the Likert scale is 3. Graph 8 presents a comparison of means of all items in the 3 groups of effectiveness, efficiency and user satisfaction. The means of items in all 3 categories are all >3. This is an indication that the responses and perceptions of the research participants are highly positive towards supporting the effectiveness, efficiency and satisfaction of users when using Notepad++ as an alternative learning tool for computer programming.

The validity of the research instrument is confirmed by the extent to which the items are internally correlated and relevant towards what the items are measuring. The validity of this PUEQ questionnaire was tested on a total of 178 participants and using SPSS to test the correlation of the three aspects of effectiveness, efficiency and user satisfaction using the Pearson correlation value of a perfect positive correlation as indicated by r at the 0.01level. Table 8 shows the correlation of each measure.

Table 7: Correlation of each measure

Measures		Effectiveness	Efficiency	Satisfaction
Effectiveness	Pearson Correlation	1	.899**	.905**
	Sig. (2-tailed)		.000	.000
	N	178	178	178
Efficiency	Pearson Correlation	.899**	1	.878**
	Sig. (2-tailed)	.000		.000
	N	178	178	178
Satisfaction	Pearson Correlation	.905**	.878**	1
	Sig. (2-tailed)	.000	.000	
	N	178	178	178
**. Correlation is significant at the 0.01 level (2-tailed).				

The first row shows a strong positive correlation of effectiveness in line with efficiency (.899) and user satisfaction (.905). The second row shows another strong positive correlation among efficiency in line with effectiveness (.899) and user satisfaction (.878). The third row presents another strong positive correlation between user satisfaction as the measured factor along with effectiveness (.905) and efficiency (.878). Overall Table 1 shows that the correlation is significant at the 0.01 level.

Conclusion and Recommendations

This is the first review focusing exclusively on the Foundation students' perception by exploring the possibility of using Notepad++ and JDK compiler as an alternative programming environment to learn Java programming at the introduction level. Based on the results of the analysis performed, although the sample population are novice users, students' perception in terms of skills and usage of Programming languages was high. Nevertheless, the study shows the Notepad++ as the code editor application and the JDK compiler as a tool to learn basic Java Programming has a high usability, indicating the feasibility of Notepad++ in terms of effectiveness, efficiency, and satisfaction. This confirms a recommendation to use Notepad++ and JDK compiler as an alternative programming environment to teach and learn Java programming at Foundation level. While not necessarily a limitation in this study, the idea of using Notepad++ eliminates the need for students to go through a series of complex of the existing default steps in Java allowing them to focus on the programming concepts.

Acknowledgement

References

Bettini, L, & Crescenzi, P 2015, 'Java-meets eclipse: An IDE for teaching Java following the object-later approach', In *2015 10th International Joint Conference on Software Technologies (ICSOFT)*, IEEE, 1-12

Bourque, P., & Fairley, R. (2004) 'Software Engineering Body of Knowledge' IEEE Computer society.

Chan Mow, ITV 2006, 'The effectiveness of a cognitive apprenticeship-based learning environment (cable) in teaching computer programming' Ph.D. thesis

Chan Mow, ITV 2008, 'Issues and difficulties in teaching novice computer programming.' in Iskander, M (eds) *In Innovative techniques in instruction technology, e-learning, e-assessment, and education conference*, Springer, Dordrecht, pp. 199-204.

Chan Mow, ITV 2012a, 'An Investigative Study on NUS Computer programming Students' Perceptions of their computer programming experience: some preliminary findings', *International Journal of Information,* 1(1).

Chan Mow, ITV (2012b). Analyses of student programming errors in Java programming courses. *Journal of Emerging Trends in Computing and Information Sciences*, *3*(5), 739-749.

Dasuki, S, Ogedebe, P, Kanya, R, Ndume, H, & Makinde, J 2015 'Evaluating the implementation of international computing curricular in African universities: A design-reality gap approach', *International Journal of Education and Development using ICT*, 11(1).

Derisma, D 2020, *The Usability Analysis Online Learning Site for Supporting Computer programming Course Using System Usability Scale (SUS) in a University,* International Association of Online Engineering viewed June 7, 2021 from https://www.learntechlib.org/p/217827/.

Dillon, A 2001, 'The evaluation of software usability', *Encyclopedia of Human Factors and Ergonomics* London: Taylor and Francis.

Flowers, T, Carver, CA, & Jackson, J 2004, October. Empowering students and building confidence in novice programmers through Gauntlet. In 34th Annual Frontiers in Education, 2004. FIE 2004. (pp. T3H-10). IEEE.

Horstmann, CS 2019, *Big Java: Early Objects.* John Wiley & Sons.

Guidance on Usability, 2018, *Ergonomic requirements for office work with visual display terminals (VDTs)*, Part 11(ISO 9241-11).

Usability: definitions and concepts, 2015, *Ergonomics of human-system interaction,* Part 11(ISO 9241-11).

Kölling, M, Quig, B, Patterson, A, & Rosenberg, J 2003 'The Blue J system and its pedagogy', *Computer Science Education,* 13(4), 249-268.

Kunkle, WM, & Allen, RB 2016, 'The impact of different teaching approaches and languages on student learning of introductory programming concepts', *ACM Transactions on Computing Education* (TOCE), 16(1), 1-26.

Malliarakis, C, Satratzemi, M, & Xinogalos, S 2014, Integrating learning analytics in an educational MMORPG for computer programming. IEEE 14th international conference on advanced learning technologies. IEEE, pp. 233-237.

Malmi, L, Karavirta, V, Korhonen, A, & Nikander, J 2005, 'Experiences on automatically assessed algorithm simulation exercises with different resubmission policies', *Journal on Educational Resources in Computing (JERIC),* 5(3), 7-es.

Mauai, E, & Temese, E 2012, 'Exploratory study on factors that Impact/Influence Success and Failure of students in the Foundation Computer Studies Course at the National University of Samoa', *Journal of Emerging Trends in Computing and Information Sciences,* 3(5), 767-773.

McIver, LK 2001, 'Syntactic and semantic issues in introductory programming education', PhD thesis, Monash University.

McIver, L. (2002, June). Evaluating Languages and Environments for Novice Programmers. In PPIG (p. 10).

Sarpong, KAM, Arthur, JK, & Amoako, PYO 2013, 'Causes of failure of students in computer programming courses: The teacher-learner Perspective', *International Journal of Computer Applications*, *77*(12).

Seffah, A. (1999). Training developers in critical skills. *IEEE software*, *16*(3), 66-70.

Seffah, A, & Rilling, J 2001, Investigating the relationship between usability and conceptual gaps for human-centric CASE tools. In *Proceedings IEEE Symposia on Human-Centric Computing Languages and Environments (Cat. No. 01TH8587)* (pp. 226-231). IEEE.

Shackel, B., & Richardson, S. J. (Eds.). (1991). Human factors for informatics usability. Cambridge university press.

Storey, MA, Damian, D, Michaud, J, Myers, D, Mindel, M, German, D, & Hargreaves, E 2003, Improving the usability of Eclipse for novice programmers. In *Proceedings of the 2003 OOPSLA workshop on eclipse technology eXchange* (pp. 35-39).

Thompson, SM 2004, *An Exploratory Study of Novice Programming Errors and Experiences.* Unpublished thesis (MSc), Victoria University.

Van-Haaster, K., & Hagan, D. (2004). Teaching and Learning with BlueJ: an Evaluation of a Pedagogical Tool. *Issues in Informing Science & Information Technology*, *1*.

Transitioning, Scholarships and the case for the Nofo A'oga: Impacts on the Perception of Higher Education in Samoa.

Rosa Filoi, National University of Samoa

Abstract

This article describes issues of transitioning and scholarships, based on the findings of a recent study on the perceptions of students on higher education in Samoa. The study focused on students at the National University of Samoa (NUS). A Pasifika and Sociological framework was used in this study, employing Pasifika research methods of talanoa and aspects of Fa'afaletui. Nineteen NUS students and one student member of NUS support staff were interviewed. The important findings will inform the National University of Sāmoa of their students' needs and the challenges they face, in order for NUS to provide appropriate support that is culturally and socially responsive to a Sāmoan student's worldview. It also highlights the case of the Nofo Aóga (the school boarder) and some culturally unique issues of access to academic and social support in higher education in Samoa.

Keywords: Transition, Scholarships, Student perceptions.

Introduction

Students' perception of higher education plays a significant role in how they view and approach success throughout their academic journeys. For this exploratory qualitative study, 19 Samoan students who were currently attending the National University of Sāmoa (NUS), and one support staff, were interviewed to learn more about their experiences of higher education, capturing their perceptions of the institution. These students were in their 2nd and 3rd year of study at NUS; therefore, they were able to refer to their foundation and undergraduate level of study as their experiences. Ethics were sought at the Victoria University of Wellington and with the National University of Samoa (UREC) and approval was granted. An indigenous approach was considered; thus, this study drew upon the Talanoa (Vaioleti, 2006) and Fa'afaletui (Tamasese et al, 2005) in conducting the interviews.

The main purpose of this research was to hear their voices around studying in an institution of higher learning in Samoa, so that appropriate support could be identified for them. This article outlines some of the key findings of this study, which uncovered transitioning, the impact of scholarships and a case of the *Nofo a'oga* (a student who boards with a family that is not their immediate family) as key factors that affected the students' perceptions of higher education, at NUS.

Background

The Sāmoa Education Sector Plan (ESP), 2013 – 2018 noted an increase of students entering some form of Post-Secondary Education Training (PSET) in the last decade (Ministry of Education Sports and Culture, 2013). NUS is the largest government PSET provider in Samoa, usually rounding up 75 percent of PSET enrolments (Ministry Of Education Sports And Culture, 2013). From 2003 to 2011, enrolment growth has been approximately 100 percent (from 1,423 to 2,823 students). In 2011, there were 3,022 students

enrolled at NUS, including the Apprenticeship Scheme (Ministry of Education Sports And Culture, 2013). With enrolments expanding since its establishment, NUS now has a roll of more than 3,000 students. The transition rate from Year 13 to higher education saw an increase over the years where in 2011 it rose from 57 percent in 2006 to 90 percent (Ministry of Education Sports and Culture, 2013). Interestingly the higher transition rates from high school education to NUS have been driven by a growth in Government of Sāmoa scholarships. The institution of higher learning has seen a considerable growth not only in enrolments, but also in staffing, courses offered, and physical infrastructure (Ministry of Education Sports And Culture, 2013).

Critical issues that are faced by PSET providers including NUS comprise the following: student drop-out and the impact of student fees as a barrier to access. Constraints include inadequate knowledge and skills of many PSET lecturers and trainers and lack of budget to support programmes adequately. In 2011, only 32.9 percent of the 152 permanent lecturers and trainers at NUS held a higher education qualification of either a master's or PhD degree. Learning resource materials and equipment, appropriate ICT support and access to library facilities and resources are all key ingredients of PSET quality, although funding is the main constraint for a PSET provider. These are limited at NUS. Without the necessary funding on an ongoing basis, it is extremely difficult to keep equipment up to date (Ministry of Education Sports And Culture, 2013).

To date, the constraints affecting young people from all backgrounds enrolling and completing PSET programmes are not yet fully understood and documented. Although pathways and opportunities are available from secondary to PSET, the main barrier is the constraints with tuition fees. As NUS is not fully funded, fees are charged. Therefore students who cannot afford the fees can apply for a scholarship or seek sponsorship. Further constraints worth noting that affect young people's participation include the following: fee levels that preclude students from poorer families; family and student limits on mobility; perceived relevance of programmes and associated weakened industry linkages; perceived low value of learning through non-formal education; Insufficient numbers of qualified teachers and trainers at all levels - often caused by migration for higher salaries amongst highly educated and qualified Samoans; restricting what programme can be offered; and limited learning pathways from secondary to PSET, and within PSET (Ministry of Education Sports And Culture, 2013). In this study, the findings would offer insights to addressing the needs of the Samoan students at NUS.

There have been very few studies of Samoan students in higher education in Samoa. Most studies that have included Samoan students were based on Pasifika students in higher education in New Zealand: (Anae et al 2002; Matautia forthcoming; Nakhid 2006; Davidson-Toumu'a & Dunbar, 2009; Nakhid et al, 2007; and Mila-Schaaf & Robinson 2010; as well as Australia (Cuthill & Scull 2011) and in Hawai'i (Uehara et al 2017). The few studies that did focus specifically on Samoan students in higher education included Petelo's (2003), Ng Shiu (2011), Penn (2010); Mara (2014), Utumapu-McBride et al (2008) based in New Zealand; Tsutsumoto (1998) in the US and Tuia (2018), O'Regan (2006) in Samoa.

Tuia (2018) found that when researching Sāmoan students studying at NUS in the Faculty of Education, their competence in English was a constraint. Lecturers used the English language for

teaching and the use of big English words was deemed difficult for the students to understand. Tuia looked at Sāmoan local educational needs with a focus on teacher education, arguing for the need for their training to include local values and knowledge He argued that courses taught in these programs at NUS were filled with western ideas and methods adding on that most the lecturers teaching these courses were educated in New Zealand and Australia. Tuia (2018) makes a strong case that Western theories of teaching and learning strongly influenced Education in Sāmoa.

The perceptions of students and students' voices from the Faculty of Education at NUS, is also identified by Tuia (2018) and Utumapu-McBride et al (2008). The critique of the lecturers in particular was a common theme. This, and the challenges related to resource constraints and appropriate family support hindered students' ability to cope well within the higher education structure. More mature student voices captured by O'Regan (2006) acknowledged their struggle with the demands of a western institution (University of Canterbury) and the demands of *fa'a-Samoa*, advocating for Samoan students' cultural values and beliefs to be considered to provide meaningful programs and learning experiences. Thus, the literature points to the issues of western ideologies and the importance of culture and *fa'a-Samoa*. This is resonated in the abovementioned studies on Pasifika students in higher education. However, the literature is insufficient in identifying the perceptions of Samoan students in higher education, so appropriate support can be offered for them.

Result & Discussion

Transitioning

The theme of 'transitioning' was common across the students' responses. It was reflected as an aspect that largely influenced their perceptions of higher education. The term 'transitioning' in the students' responses referred to two factors: a) the transition from high school to university and b) the transition from foundation level to undergraduate level. At NUS, upon the completion of high school students who pass the Samoa School Leavers Certificate can enter the Foundation Program if they meet the entry requirements. This was previously known as the University Preparatory Year. This is a one year program. Upon its completion students are able to pursue undergraduate studies abroad and here locally. Some will be privileged to win scholarships to do so.

Transitioning from high school to university.

Difficulty in transition

Most of the students found it hard to transition to university. The high school setting is fairly disciplined compared with higher education where students have to be more self-motivated and able to organize their own use of time. One student said she was "quite nervous the first time." There was a number who expressed worry and doubt in themselves. They felt a lack of self-confidence and were intimidated by the assumption that it would be hard and of how other students would perceive them.

"I thought lowly of myself, when I came to university, it's difficult. Sometimes I look at the students I think that they are smarter than me and I'm so afraid when I come to the university. Sometimes I look poorly thinking the other students make fun of me."

Students who went to school in the rural areas before attending university made the following comments on how this impacted their transition.

"My feeling of being a Savai'i person it's like it's biased by people here in the university especially students in Apia and students in Savai'i, the people that run the university are biased on us it makes us feel like we are down to ourselves and that we don't mind but it's like we are all Sāmoan and that."

"Until when I moved to uni I was actually literally scared to actually start uni aye I was like a man people are gonna look down on Aleipata College like, imma be honest, in my Foundation when people ask me what my school was I would be like I don't know, I wouldn't even say anything."

Lack of self-esteem and lack of self-confidence was highlighted by the student support staff, as one of the issues that have come up when working with students who struggle with literacy. She also comments on the students who come from the rural areas.

"The majority of our students who are noted to be struggling are students from Savaii and from high schools in the rural districts from Upolu. And these students from my own experience have very low literacy skills, essay writing, research and then of course parts of speech."

"Along with the poor basic literacy skills come the lack of self-esteem; lack of self-confidence, to speak up, that their idea is wrong."

It seems those who had a very difficult time transitioning because they were lacking in self-confidence. Aspects of the transition that they found difficult included meeting new students from different high schools, feeling that the school they had attended was less prestigious than some other high schools, and believing they were more socially disadvantaged if they were from a rural area. This was further linked to the students' level of literacy skills, particularly in English.

Successful transitioning

Students who attended schools in the urban area found that their high school helped them with the transition. For example, the student below talked about how coming from Savai'i and attending Sāmoa College prior to university helped him with his transition.

"When I heard about Sāmoa College, I thought it was only for half caste and palagi kids. I thought lowly of myself. And then my perspective changed, I was so happy, because when I went there, there were lots of Samoan kids. So, when I was preparing to come to university my cousin and brother told me that it was going to be hard and there would be many students in big lecture rooms but I had confidence from college to communicate with people, get to know other students and communicate with the lecturers to gain more understanding. So, I got used to the lecturers and was able to gain more understanding on the subjects."

Another student who went to the same high school had an experience that resonated with the idea that it was an easier transition because it was similar to that in her previous school.

> "But when I came and one week since NUS started and…it's like I'm in college again nothing new it's just um new level of teaching in each subject. But the process in school is like the same as in colleges."

Although most of the students found entering university hard, they eventually overcame their anxieties through self-affirming beliefs and their faith.

> "The first thing I think at that time is the reason why I come to school is that I love my parents. The most important thing is to complete why I came to school. Study hard. Sometimes I'm struggling. Sometimes I'm stressed."

> "So from the beginning during my first year, in foundation, it was very challenging in new area, new student, new teachers, but I eventually got used to it till now, in my final year, even though the first year was difficult it was kind of okay compared to now, it's much harder now. Although it's hard, if you put your heart into it and have the will then all will be okay."

Freedom

Most students felt that there were positive and negative aspects to the greater freedom of studying at university:

> "Here it's like open, it's up to you with what you do with your educational life whether you come, no one will come and tell you to do this or that whereas down in college like you're under control by the principal and teachers but up here it's up to you (laughs)"

> "The teachers never worry about us; they have the mind-set that we as student will think responsibly about the fees that we pay."

Freedom allowed for a more flexible timetable. This freedom was perceived as a kind of self-development, with the onus being on the student to manage this freedom.

The new found freedom included adapting to a new environment, to new teaching methods, and to a more independent learning environment. Students' experience with their previous high school affected their ability to transition, as they constantly compared NUS to that experience. The progression rate from year 13 (high school) to higher education has increased over the years as more students are pursuing higher education after high school (Ministry of Education Sports And Culture, 2013).

At NUS there is the Student Support Services which offers academic and social counselling and support for students. Students who are at risk of failing a course are reported to the student support staff for counselling and intervention. The student support staff confirmed this as an issue in helping students understand their assignments which are in English, and to help them bring out their ideas, to gain the confidence they need to complete assignments and to contribute in the class.

"So one of the biggest issues is they struggle with English and because the comprehension is not so good…so all of these can be discouraging to a student. Hope it helps them have a positive experience feeling good about themselves and express themselves in tutorial groups and outside of that be able to communicate with friends."

This is further supported by the literature as a problem shared amongst Pasifika students (Cuthill & Scull, 2011; Uehara et al, 2017; Raturi & Boultoun-Lewis, 2014; Petelo, 2003). The lack of confidence by students to ask questions in class can be linked to their Fa'aSāmoa way of upbringing which Utumapu et al (2008) also notes. "Students will be reluctant to ask questions as it may be a sign of being rude or not listening to the teacher while he/she was teaching". In the *fa'a-Sāmoa* young people are taught to listen and respect their elders. Students bring this attitude with them into formal education. This is also common across Pasifika students as found in the literature, where there is a culture of silence that persists within higher education (Theodore et al, 2018; Cuthill & Scull, 2011; Uehara et al, 2017; Raturi & Boultoun-Lewis, 2014; Utumapu-McBride et al, 2008). As is the case of Tonga, "the process of Western education entails questioning, critical thinking and independent expression, all of which conflict with the cultural values of obedience, respect, and conformity" (Kavapalu 1991:191 as cited in Schoeffel et al, 1996).

It is also important to note here that students who were confident acknowledged their previous high school as instrumental to preparing them for university, as well as being able to comprehend in the English language which the student support staff confirmed, and supported by Utumapu- McBride et al (2008). Those who went to an urban area school transitioned well in this study. Students eventually gained self-confidence through peers and learned to adapt to their new environment. Peer's support is noted throughout the literature (Petelo, 2003; Tsutsumoto, 1998).

Transitioning from foundation level to undergraduate level

A final transition is from the Foundation program to starting the degree. This was heavily impacted by the unchanged environment and the inability to secure a scholarship to study overseas. The desire for a scholarship to study overseas affected the students' perception of higher education when returning to pursue higher education. Returning to the same physical environment did not offer any new excitement for the students. This is in stark contrast to the Sāmoan students who study outside of Samoa, who are able to experience a new setting and environment when commencing their undergraduate studies (Petelo, 2003; Penn 2010; Ng Shiu 2011).

Impact of Scholarships

Students in the NUS foundation program have the opportunity to win an overseas scholarship. These scholarships are the rewards on offer for the top foundation students each year. They are offered through the Tri-lateral Government partnership between Sāmoa, New Zealand and Australia. Students in the FOA, FOBE and FOS faculties are prioritized for these scholarships where they are distributed amongst these three faculties. The ranking of scholarships would be to university programmes in Australia, New Zealand, Fiji and Vanuatu (University of the South Pacific –USP) and then Sāmoa (NUS and USP Alafua). Students who make the top five of each faculty would be the most likely to win a scholarship to study in Australia

and New Zealand. However, the process has recently changed; now students who attain high averages based on their academic performance are invited to apply for a scholarship and must meet all the requirements and criteria set out by the scholarship provider – Australia and New Zealand. These scholarships were managed through the Ministry of Foreign Affairs and Trade Samoa (MFAT). It was a common practice for MFAT Samoa to host a briefing session at the start of the first semester each year to communicate the selection process and criteria to the students enrolled in the Foundation programme. This is now the task of the Public Service Commission.

There are also scholarships offered by the Government of China, whereby those who have completed their foundation studies are eligible to apply. The criteria are set by the Chinese government and were processed through the Ministry of Foreign Affairs and Trade Samoa (MFAT). Local scholarships to study in Samoa at NUS are usually sponsored by the government of Samoa, through MFAT, Ministry of Education Sports and Culture, and the Ministry of Health (MOH) for nursing students. Other local scholarships include sponsorship by private organization such as the Yazaki Kizuna Foundation Scholarship (National University of Samoa 2019).

Access to scholarships - and winning one or not winning one - was a major issue for the student interviewed. Most of them discussed why they thought they had missed out on a scholarship to study overseas. The response below is a summary of one of the students' ambitions towards a scholarship as well as his plans for when he was in foundation. It also points to the importance of receiving a scholarship and what it meant for him and his family.

> *"We have one member working which is my dad… so I feel sorry for him, he has to go apply for this huge loan at NPF, in order for me to proceed with my education. So after my foundation year, I did very well and I managed to get a local scholarship. I had two options, I mean three actually. If I didn't get an international scholarship, I will wait for the local MFAT scholarships and if I don't get a MFAT full scholarship I will apply for China. On that very same day I was going to apply for a scholarship to China, this was in 2018 and on that same day my dad called me to his office and he congratulated me, and I was like, for what? And he said, NUS called him that I got a MFAT full local scholarship and I was like, I should stay. Because it's shorter for me, it's a period of three years, if I go to China it'll be longer and then when I come back my dad will retire already and no one's gonna provide for the family. So [I] really want someone to stay back on the island and provide for the family. My dad actually provide for everything since primary, primary to college and now to university. But since now I'm on scholarship, my dad is only providing for my transport fare, food on the table."*

Some students expressed their frustrations with the scholarship selection process which highlighted their insecurities towards the process, whereas others were unhappy with the lack of information communicated about the scholarships and processes.

> *"How they like give out information, be specific…for example: scholarships, the scholarship and how they brief…they don't even brief us on how like how we get like book allowance [because] they just give out the letter but they don't even like do a meeting or do anything to brief [us]."*

One student acknowledged her own carelessness as to why she lost her chance to be awarded with an overseas scholarship to study at USP in Fiji through the two-round process. However, she was still able to secure a local scholarship.

> *"I spent too much time at the gym I lost my notes (laughs) so in the last semester I lost my maths book I lost my books I don't who took them at the time. So I studied in the dark I didn't know what I was studying so I got a scholarship to Fiji in the first round but the second time I got a local so I couldn't go overseas all because I spent too much time at the gym and losing all my books."*

The desire for an attractive overseas scholarship was based on the goal of obtaining an internationally recognized qualification as well as overseas experience. Most NUS qualifications do not have international recognition. However, students who were unable to secure one felt sad for their family because winning an overseas scholarship is so prestigious, but accepted it as a call from God to stay in Sāmoa.

> *"I felt sad for my family, they had high expectations of me. They think I'm gonnna get a scholarship but I say no I think this is God's plan I don't have to go out I have to stay in Samoa and study. The other thing I wanted to get a scholarship was that the papers offered by NUS it's not really valid at overseas so my other aim after my degree I will aim to go overseas and get a job there but if I go with my certificate from here to look for job I can't get a good job so that's why I really wanted scholarship so that I can get a certificate that is appropriate for me."*

> *"I tried to get a scholarship (overseas), but thank God I didn't get the scholarship but I got a local scholarship, then last year I was president for my faculty (and currently the NUSSA president). I can't explain it, only God answered my prayers."*

Local scholarships

Interestingly, most of the students, when asked about how they felt coming back to the same institution to continue their studies towards their undergraduate degrees, acknowledged how grateful they were to have received a local scholarship. This to most of them was a great help to their families financially. For some it was a great privilege and were humbled to receive such an opportunity. And for others they credited the scholarship as the main reason they were able to continue at university.

> *"It feels great as in I'm happy and privileged because it's not an opportunity that is easy to get, it's not an opportunity other students get, a lot of families with low income so I'm grateful I got this opportunity because my family is a low income family and this opportunity has allowed me to be one of the students under the MFAT local scholarship program which is great help financially for my family because to be honest if it wasn't for this I would not have continued my studies, the fees are too expensive. So there is much to be happy about in receiving this once in a lifetime opportunity."*

> *"Now I am on a local scholarship so it's okay not to help my parents with my fees so they don't have to worry about it….my text books and fees they're taken care of by the government (scholarship)."*

The student below is a recipient of the Yazaki Kizuna Foundation scholarship and he explains how this scholarship helps him and his family.

> *"My starting fee for the foundation year is 1,000 per semester and that's like 2,000 per year so my family didn't spend a penny on that and even from my foundation to my first to my second year they didn't spend a penny on that, I looked for a scholarship I want to help my family because you know we have, me and my brother here we are the same, only one person working, and my father makes 150 tala per week and that's a little money because my mother is a su'isu'i [dressmaker]so yeah, the only thing that starting from foundation my mother always give me bus fare and now this time I'm doing my only bus fare."*

Student resilience: Sponsorship

Those who missed out on the main scholarships found ways to seek sponsorship from other government ministries like the Ministry of Education Sports And Culture as well as private organizations/companies.

> *"… so after my foundation year I applied to Ministry of Education Sports And Culture for a sponsorship because I thought of my family and the tuition fees and text books were too expensive and I wanted to alleviate the financial burden from them because there were other financial obligations as well. So I applied to Ministry of Education Sports And Culture and I they approved to sponsor me. So my parent, they only send me money for my lunch. As for the tuition fees and text books they are covered by Ministry of Education Sports And Culture from my first year till now in my final year which is a great help for me and my family."*

> *"… for my school it's under Ministry of Education Sports And Culture sponsorship I wanted to further studies for bachelor level I applied. I knew that I wasn't lucky with the local scholarship (MFAT) so I applied for Ministry of Education Sports and Culture. So that's how I got this far. So it depends on the grades. So need to keep it high."*

Other students' tuition fees were sponsored by individuals. One student shared how her participation with a non-for-profit organization called Brown Girl Woke (BGW) allowed her sponsorship from the founder of the organization.

> *"I also…BGW I asked them for help but they say if I participate in their program they can sponsor my tuition fees so I thank BGW I am able to get sponsorship for my tuition fees this semester. So my parents are also happy for the financial assistance and help to them regarding my fees which are almost $2,000 tala."*

The mention of scholarships was a main theme for the participants, as it impacted their view and participation in higher education. It is evident from the responses that attaining a scholarship to study at higher education was desired, primarily to study overseas and secondarily to continue studying whilst simultaneously being able to help the family financially.

The prospect of scholarships for the students not only impacted their transition, but also their perception of higher education. The students desired a scholarship to study overseas but whether overseas or locally a scholarship was considered necessary in order for students to continue in higher education because of the expense of fees to their families. Only three of the students were self-funded by their families. Students who were on local scholarships or were sponsored embraced it as an achievement and privilege. It was a means of great financial help to their families. As noted earlier, in the Education sector plan, a higher transition rate from high school education to NUS was linked to a growth in Government of Sāmoa scholarships (Ministry of Education Sports and Culture 2013).

A few points worth discussing here: firstly, the hierarchy of importance that students placed on the obtaining of a scholarship, with the most prestigious being those overseas. As one student noted, her main ambition to study overseas was to ensure she received an internationally recognized qualification. Samoans are very likely to migrate and it is easier to migrate if you have an internationally recognized qualification. Secondly, the desire for a scholarship to help alleviate financial burden on families and to continue education as expressed by the students. I would like to argue here that this has something to do with the *fa'a-Sāmoa* and how the students are nurtured through the education system. When one student expressed her sorrow of not being able to secure a scholarship to help her family, she felt like she let them down and that they had to worry about her tuition. In contrast, the students who did secure scholarships talked proudly about how their families need not worry about paying for their fees – it was already an accomplishment. From my sociological lens, scholarships were offered as incentives to continue in higher education. These incentives are scarce and therefore those who win the rewards can be proud of their achievement. Another effect is that scholarships function as a beneficial means of encouraging competition between students to obtain high marks.

Boarding with Family (Nofo A'oga).

Many Sāmoan students at NUS are from the Savai'i or the rural villages and come to live with families who are closer to town where the university is located. Without these living arrangements many would be unable to attend.. In such cases, students often live with either extended families or close friends of their parents. Ideally these living arrangements are in the best interest of the student and their families. However, there have been cases whereby some of these students are not well supported by their host families. It is the custom in Samoa for young people to do chores for the family they are living with, which can take up time that should be spent studying, and also host families feel a lot of responsibility for students living with them and may restrict their freedom.

Two students said that they found it difficult to live with their host families because of misunderstanding. One recounted how her aunty did not understand the expectations she had to meet as a university student and often questioned why she had to go to university every day given her timetable stated she did not have classes every day. When she told her mother about her situation, her mother encouraged her to remain with her aunty until she completed her studies. The following year when she completed foundation successfully and embarked on her undergraduate studies at NUS, her brother heard about what she went through the previous year and decided to take her in to live with him. Since

then, she has been enjoying university as her brother is more supportive of the extracurricular activities she engages in and does not question how long she has to be at university.

> *"Before I was staying with my aunty so I face difficulties being that kind of person who is a nofo ā'oga. And sometimes I almost give up coming to school and I want to go back to Savai'i to be with my parents. Now I'm staying with my brother so I feel okay now"*

Another student explained how she stayed with her cousins and was often misunderstood. She expressed how she had to help look after her cousins' children and often was not allowed to go and see her family. She now lives with the family of her best friend whose family offered for her to stay with them. She is happier there, as they are more supportive and even drop and pick her up from university.

> *"I used to live with my cousin and her brother. Most of the time she's not happy with me because she always misunderstood me in many ways, both of us misunderstood each other. So I shared to my best friend and she told her parents and they said I can stay with them."*

A staff member of the NUS Student Support Services recounted a case where one of the students she was able to help did not live with her parents. She was able to provide the space for her on campus to do her studies before she had to go home, to ensure that before she goes home all the work was completed.

> *"I documented that success story. She came [and] she had a problem, I asked her what problem, [she said] 'I have an aunty I live with' – [I explained] if you're not with your parents when you do what you want where you want, is this where you be very strict with your time management. Between classes you come and sit here. We used to sit in the front and so when she goes home all the work is done. So she doesn't have to stress. Small things we do in order to help them. She graduated. She now works."*

This also highlights the importance for families to understand the expectations of the students in order for them to ensure a supportive home environment as well as a supportive attitude towards their commitment and participation in higher education. The case of the *nofo ā'oga* needs to be explored more in further studies, because there are various cases as such. This has a significant impact on the students' academic performance and participation in higher education.

The issue that arises in the case of the *nofo ā'oga* is a major finding because it shows a dimension of the problems some students face that is social and goes beyond issues of student competency. Three students among the participants in the study were from Savai'i, who had to move to Upolu and live with their host families. Two of them have issues described above. A similar case of a NUS student living with family relatives in Upolu was documented by Utumapu et al (2008) whereby he felt he did not have enough time to do his studies and was conscious of using too much electricity at night. The staff member of the NUS Student Support Services previously referred to described how she has had to help a *nofo ā'oga* student complete their assignments before going home for similar reasons. It must be noted that this is not the case for all *nofo ā'oga* students who are able to live with their own parents, close relatives and in very supportive homes. This was the case of the male student who expressed his living arrangement as a supportive one.

Students boarding with relatives or other families do not have the same access and support as the other students whose families live closer to the university, who live in more supportive home environments and have additional problems in transitioning. In contrast to the Samoan students described by Petelo (2003) who also leave Sāmoa to study overseas are well supported by scholarships which ensure access to a secure and supportive accommodation, and further support at the institution of higher learning. NUS lacks the funding to offer students the kinds of support that are offered by universities overseas, which provide student accommodation and various forms of care and mentoring. At present NUS does not offer accommodation for NUS students who come from the rural areas and can only help them though the NUS Student Support Services, which was not specifically set up for this purpose. Although the students whose problems have been described here were able to resolve their living arrangements, this begs the question of whether there are high school graduates who need more support if they live far from the university. A further observation is that both students were females which can be viewed from a feminist lens, as further barriers faced by women in higher education (Lesley, 2016).

Conclusion

In the article I have revealed a range of issues arising from the accounts of the student interviewed. Transitioning from high school to university involved learning issues, such as English language comprehension, social adjustment, time management, self-confidence, and their hopes of winning scholarships. The case of the *Nofoa'oga* as highlighted has a further impact on the transition process. This paper presented these three key findings that are relevant to the case of NUS students. The following recommendations are put forward to NUS to consider as an outcome of this study; for NUS management to consider the transitioning needs of its students and a more positive student experience. The first suggestion is for a reorientation program for returning students who have completed foundation, to usher them into their degree programs. The second is that NUS should be more aware of the particular problems and social issues faced by Samoan students, particularly with the case of the *nofo ā'oga*. This suggests that a more proactive approach to student counselling is needed. Perhaps a survey should be conducted of all students enrolling to ascertain their living arrangement, whether they live with parents or other relatives or board with non-family, whether it would be worthwhile to produce a booklet of guidelines for families or hosts on how to support a student living with them. What other support can be offered for these students and what would alternatives look like? How can NUS take into account these inequities regarding students? A third strategy would be to provide more information to parents and students at the time of first enrolment on scholarship opportunities and conditions. Furthermore, awareness and information about local scholarships at NUS could be communicated clearly to the public. More learning opportunities and exposure for the students through the availability of internships, relevant learning resources as suggested by the students. The findings in this research can also inform some of the concerns raised by the Education sector plan 2013 – 2018 (Ministry of Education, Sports and Culture 2013) regarding PSET providers and the challenges faced by the students.

Acknowledgments

References

Anae M, Anderson H, Benseman J, & Coxon E 2002, 'Pacific peoples and tertiary education: Issues of participation', *Final report,* Auckland: Auckland Uniservices.

Cuthill M, & Scull S 2011, 'Going to university: Pacific island migrant perspectives: underlying factors constraining access to higher education for young people from low socio-economic backgrounds in Australia: Pacific island migrant perspectives', *Australian University Review,* vol. 53, no. 1, pp. 5 – 13.

Davidson-Toumu'a R, & Dunbar K 2009, 'Understanding the experiences of Pacific students and facilitating socio-cultural adjustment into higher education in Aotearoa', *New Zealand Journal of the Australia and New Zealand Student Services Association*, vol. 33, pp. 69 – 88.

Lesley, A 2016, 'Theories of the sociology of higher education access and participation', in *Routledge Handbook of the Sociology of Higher Education* (ed.), Routledge.

Mara, D 2014, 'Samoa women in tertiary education and ethnic identity', in F Cram, H Phillips, P Sauni, C Tuagalu (eds.), *Maori and Pasifika Higher Education Horizons*. UK: Emerald Group Publishing Ltd

Matautia, SAP 2016, "A'oa'o le tama e tusa ma ona ala, a o'o ina matua e le toe te'a ese ma ia: if we fail to construct our own realities others will do it for us." Unpublished PhD Thesis, Victoria, New Zealand: Victoria University of Wellington School of Architecture and Design.

Mila-Schaaf K, & Robinson E 2010, 'Polycultural capital and educational achievement among NZ born Pacific peoples', *Mai Review,* Issue 1 http://review.mai.ac.nz

Ministry of Education Sports and Culture 2013, *Education Sector Plan 2013 – 2018*, Ministry of Education Sports and Culture, Samoa. http://www.Ministry of Education Sports and Culture.gov.ws/wp-content/uploads/2019/09/Education-Sector-Plan2013_2018-English-version.pdf

National University of Samoa 2019, *Annual Report (01 July 2018 - 30 June 2019)*, Governance, Policy and Planning, National University of Samoa, https://drive.google.com/file/d/1_8ckNQxbZRmJgAG8s3KQkpoLJkZdZity/view

Nakhid, C 2006, 'Ethics and the obstruction of social justice for Maori and Pasifika students in tertiary institutions in Aotearoa', *Race Ethnicity and Education*. vol. 9, no. 3, pp. 295 – 305.

Nakhid C, Fa'alogo JP, Faiva M, Halafihi D, Pilisi S, Senio J, Taylor S & Thomas L 2007, 'Aua'i ile galuega: a Pasifika Research Design ensuring ownership and autonomy', *Social Policy Journal of New Zealand*, vol. 32, pp. 106 – 125.

Ng Shiu, RSB 2011, "It's like going to the moon: the experiences of Samoan tertiary health students

at the University of Auckland." Unpublished Doctoral Thesis, Auckland, New Zealand: University of Auckland

O'Regan, B 2006, "Ietoga: Samoa educator's educational journeys." Unpublished PhD Thesis, Christchurch, New Zealand: Christchurch College of Education.

Penn, R 2010, "Manumalo: a study of factors which facilitate success for New Zealand-born Samoan students at university." Unpublished Master's Thesis, Auckland New Zealand: Auckland University of Technology

Petelo, LM 2003, "Fa'alogo i leo o le fanau: A qualitative study of the ways in which students of Samoan background experience their education within the University of Canterbury". Unpublished PhD Thesis, Christchurch, New Zealand: University of Canterbury.

Raturi S, & Boulton-Lewis G 2014, 'Shaping lecturers' beliefs about teaching and learning in higher education in the Pacific', *Issues in Educational Research*, vol. 24, no. 1, pp. 67 – 84.

Schoeffel P, Meleisea M, David R, Kalauni R, Kalolo K, Kingi P, Taumoefolau T, Vetibau L & Williams SP 1996, 'Pacific Islands Polynesian Attitudes to Child Training and Discipline in New Zealand: Some Policy Implications for Social Welfare and Education', *Social Policy Journal of New Zealand*, vol. 6

Tamasese K, Peteru C, Waldergrave C & Bush A 2005, 'O le taeao afua, the new morning: A qualitative investigation into Samoan perspectives on mental health and culturally appropriate services', *Australian and New Zealand Journal of Psychiatry*, vol. 39, no. 4, pp. 300 – 309

Theodore R, Taumoepeau M, Tustin K, Gollop M, Unasa C, Kokaua J, Taylor N, Ramrakha S, Hunter J & Poulton R 2018, 'Pacific university graduates in New Zealand: what helps and hinders completion', *Alternative,* 00(0), 1 – 9.

Tsutsumoto, TS 1998, "Higher educational perspectives, through the narratives of Samoan college students: a thesis submitted in partial satisfaction of the requirements for the degree of Master of Arts in Asian American Studies." Unpublished PhD Thesis, California, Los Angeles: University of California Los Angeles.

Tuia, TT 2018, 'The impact of Samoan Pre-service Teacher Education on Student Learning', *The International Education Journal: Comparative Perspectives*, vol. 17, no. 3, pp. 30 – 38.

Utumapu-McBride T, Esera E, Toia SF, Tone-Schuster L, So'oaemalelagi FL 2008, 'Sa'ili mo le lumana'i: Research on Samoan Students' Learning Perspectives and the Impacts on Their Achievement', *Alternative Special Edition: Special Issue.*

Uehara DL, Chugen J & Stanley Raatior V 2017, 'Perceptions of Pacific Islander Students in Higher Education', *Journal of Diversity in Higher Education*.

Vaioleti TM 2006, 'Talanoa Research Methodology: A developing position on Pacific Research,' *Waikato Journal of Education,* vol. 12, pp. 21 – 24

Prevalence of non-communicable diseases risk factors among all the current medical students at the School of Medicine, National University of Samoa

Viali Lameko, Oceania University of Medicine, Samoa (OUMS)

Amna Adil, MBBS Year 1 Students, School of Medicine, National University of Samoa

Elsa Elia, MBBS Year 1 Students, School of Medicine, National University of Samoa

Faaiu E Fuimaono, MBBS Year 1 Students, School of Medicine, National University of Samoa

Ilia Savea, MBBS Year 1 Students, School of Medicine, National University of Samoa

Abstract

The paper reports the results of an observational cross-sectional design of all 47 undergraduate medical students (Bachelor of Medicine and Bachelor of Surgery: MBBS) in Samoa. The study found that more than half of medical students at the National University of Samoa are obese, and 53.2 percent of the participants drink alcohol a few times on a weekly basis. There were, however, only a few students (6.4 percent) who are current tobacco smokers. This is of concern because the projections in 2013 by the World Health Organization (2013a) that non-communicable diseases (NCDs) would become leading causes of death has become a reality in Samoa. The top seven cases of death in the country are all attributed to non-communicable diseases. NCDs are responsible for 70 percent of deaths and cardiovascular diseases (CVDs) account for 37 percent of all deaths in this small island country. Tobacco use, poor diet and reliance on processed foods, physical inactivity and excessive alcohol use are the four most common modifiable risk factors for NCDs. Although structural and economic development factors such as poverty, urbanization, a transition from traditional foods to processed foods high in fat, sugar and salt, and sedentary lifestyles with more young people taking up tobacco smoking. Health workers must become role models if they are to tackle the circumstances in which rising prevalence of NCDs is damaging public health and indirectly placing high cost on Samoa's economy.

Key words: Non-communicable diseases, Risk factors, Medical students, obesity

Introduction

In the recent years, non-communicable diseases (NCDs), such as cardiovascular diseases (CVD), diabetes, chronic obstructive airway diseases (COAD), and cancers have become an emerging health issue in Samoa with increasing high prevalence rates (Ministry of Health, 2018; Ministry of Health 2017). The World Health Organization (WHO) estimates that by 2020, NCDs would account for 80 percent of the global burden of diseases, causing seven out of ten deaths in developing countries, about half of them premature deaths under the age of 70 years old (World Health Organization 2013b). Those projections in 2013 have become true, especially for Samoa, with the top seven cases of death within its main hospital in the city all attributed to NCDs (Ministry of Health 2017). That is NCDs are responsible for 70 percent of deaths and CVDs account for 37 percent of all deaths (WHO 2011). The structural and economic development factors are to blame to a certain extent, such as, social economic status, unplanned urbanization within countries, a move from traditional foods to processed foods high in fat, sugar and salt, a decrease in physical activity

with more sedentary lifestyles and more young people taking up tobacco smoking (Alwan 2011; Beaglehole et al 2011)

The median age in Samoa is 21 years according to the most recent population census and that more than 40 percent of the total population is less than 19 years old (Samoa Bureau of Statistics 2017). The Global School Survey conducted in 2010 among 13-15 year olds found that 43.4 percent of boys and 59.1 percent of girls in Samoa were overweight, 15.7 percent of boys and 22.3 percent of girls are obese (Fiji National University 2012).

Tobacco use, poor diet and reliance on processed foods, physical inactivity and excessive alcohol use are the four most common modifiable risk factors for NCDs. (Beaglehole et al 2011). In Samoa, according to the WHO Stepwise survey of these modifiable NCD risk factors among the adult population in 2003 and 2013, they found that the prevalence of tobacco smoking are 40 percent and 26 percent, respectively in those years; obesity had increased from 54.7 percent in 2003 to 55.8 percent in 2013; type 2 diabetes from 20.9 percent in 2003 to 22.1 percent in 2013 and hypertension from 28.7 percent in 2003 to 29 percent in 2013.

Moreover, the trends of obesity and diabetes, as noted by Lin et al (2017), saw the high prevalence of obesity over time among the Samoa people, as in 1978 which found 27.7 percent and 44.4 percent of males and female, respectively, were obese. As a result the prevalence of diabetes among Samoan adults dramatically increased from 1.2 percent in 1978 to 21 percent in 2013. Interestingly, adults surveyed reported a significant increase in physical activities in the 2012 survey compared to the earlier survey in 2002, but the overweight and obesity rates have both increased. The decreasing consumption of fruits and vegetables could explain this, but no data on the type of food consumed was collected or recorded. Subsequently, the top five causes of death in Samoa are all NCD related, namely heart attacks and strokes (34 percent), cancers (15 percent), chronic lung diseases (11 percent), and diabetes related diseases (9 percent). An estimated 81.75 percent of all deaths in Samoa can be attributed to NCDs (World Bank Data 2019), and according to the National Health Accounts Report for FY2014-2015, NCDs accounted for over 36.4 percent of total health care expenditure in Samoa. (Ministry of Finance 2014; CHIPSR 2017).

This study is based on the argument by Lameko et. al (2022) that to achieve affective communication at the primary health care level, medical practitioners in Samoa need to be role models who are conscious of NCD risk factors and make lifestyle choices to avoid them. Accordingly, the research examined and explored the extent to which risk factors of NCDs and obesity (smoking tobacco, nutrition status, alcohol consumption, physical activity) exist among the medical students at the National University of Samoa.

Methodology

The study utilized an observational Cross-sectional design of all 47 undergraduate medical students (Bachelor of Medicine and Bachelor of Surgery: MBBS) at the National University of Samoa, on campus, between the month of March and June, 2022. The study was approved by the Samoa Ministry of Health and Health Research Committee. During the actual data collection, all the students signed a consent form to participate and the steps were explained to all the participants by the principal researcher. Then followed by face to face interviews by the researchers and measuring the heights (cm) using a Stadiometer and the weights (kg) using a weighing scale.

Results

Study Demographic

About 4 (8.3 percent) of the participants were from the MBBS Year 1, 6 (12.5 percent) from MBBS Year 2, 11 (22.9 percent) MBBS Year 3, 13 (27.1 percent) from MBBS Year 4, 6 (12.5 percent) from MBBS year 5 and 8 (16.7 percent) from the final years, MBBS year 6. Besides the normal lecture and tutorial attendance students spent on average about 24 extra hours per week to study.

Behavioral Risk Factors:

Of all the participants, only 6.4 percent (n=3) are current tobacco smokers while 93.6 percent (n=44) do not smoke tobacco. About 53.2 percent (n=25) of the participants drinks alcohol a few times on a weekly basis, against 46.8 percent (n=22) who do not consume alcohol. Almost 73 percent (n = 34) of all the students do some form of physical exercise per week compared to 27 percent (n = 13). About 95.7 percent (n = 45) eat fruit and 95 percent (n=45) eat vegetables at least twice per week. The table 1 and Figure 1 showed the body-mass index (BMI) of the students in the study.

Table 1: Body Mass Index of Medical Students

BMI	Number	percent
BMI <18.5 kg/m^2	0	0
BMI: 18.5 – 24.9 kg/m^2	10	21.3
BMI: 25 – 29.9 kg/m^2	9	19.1
BMI > 30 kg / m^2	28	59.6

Figure 1: Body Mass Index of Medical Students
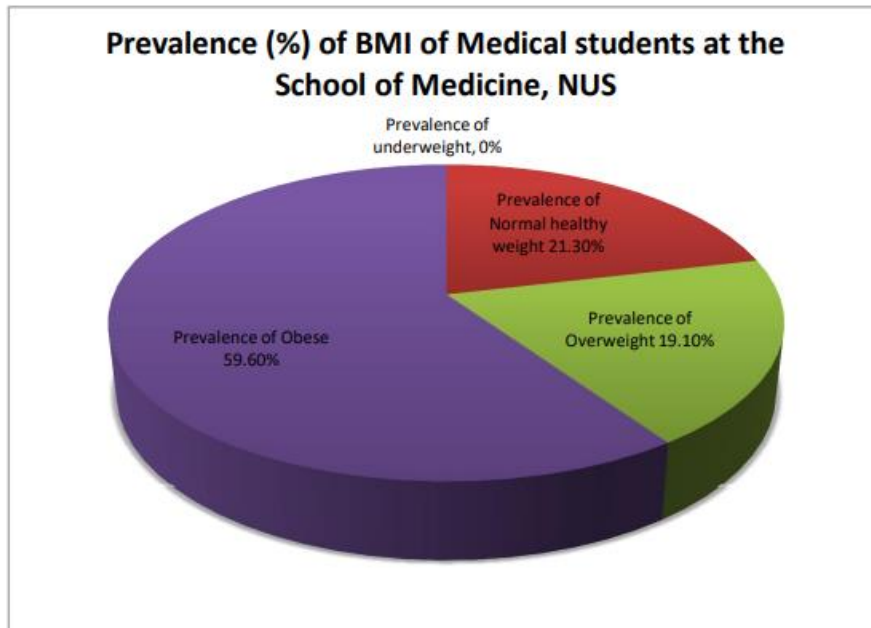
Past Medical History Among the participants

Only about 2.1 percent (n=1) of the study population has a history of hypertension and on regular medications, and 6.4 percent (n=3) with a history of Rheumatic Heart Disease (RHD). The study also showed that 8.5 percent (n=4) of the population has a history of anaemia and bronchial asthma.

Discussion and Conclusions

The current study found that almost 60 percent of the school are categorized as obese, and only a fraction of the whole sample population are within the healthy weight. Whilst a small number have started to smoke tobacco and a few have a history of hypertension, the result suggest that this cohort of medical students are at increased risk of developing diabetes and other end organ damage in the future, if they do not make lifestyle choices aiming to prevent further disease development. As future medical officers serving our population in the future, the findings are a wakeup call for the students and those working with patients to think about 'leading by example'. The findings are challenging, but Samoa's health professionals can work together as a team and strive towards a healthier future and a better tomorrow, by becoming 'champions' of NCD prevention.

Recommendations

There is a need to teach medical students and practicing health professionals about the behavioural changes that are needed to avoid developing NCDs. The students need to try and quit drinking excessive alcohol and tobacco smoking, to exercise more, eat fewer calories, and eat healthy diet with more fresh local fruits and vegetables. They need to engage in daily physical activities that are appropriate for their physical abilities (e.g. walking, jogging, and yoga, going to the gym and playing sports). By learning to protect their own health they will be more likely to advocate these measures to their patients and demonstrate that they practice what they preach. Health policies and action plans, and regular monitoring of risk factors are needed, particularly through repeated surveys over the long term, to measure progress and identify positive changes, not only to this cohort of medical students, but also for all of Samoa's youth. To address NCDs and risk factors among the young people of Samoa, the plans of action must be cost-effective and innovative. Action and results-oriented research is needed to address the high and increasing burden of diet-related illness and NCDs among the youth of Samoa. This is only one element of the need for urgent attention to the NCD threat to public health; Samoa need to implement much-needed public health oriented reform and multi-sectorial initiatives and policies to reduce the prevalence and structural causes of NCD risk factors (see Lameko 2020, 2021,2022 this issue).

Endnotes

[1] Body mass index (BMI) is a measure of body fat based on height and weight that applies to adult men and women

Acknowledgement

References

Alwan, A 2011, *Global status report on non-communicable diseases: 2010.* WHO, Geneva: Switzerland, 176.

Beaglehole, R, Bonita, R & Horton, R 2011, Priority actions for the non-communicable disease crisis. *Lancet*, 377, 9775: 1438-1447

Fiji National University C- Pond 2012, *Situation analysis of issues related to childhood obesity in Samoa*, C-Pond, Fiji: Fiji National University.

Centre for Health Information, Policy and Systems Research (CHIPSR) 2017, *Samoa National Cost Analysis Study*, Suva, Fiji: Fiji National University. https://documents1.worldbank.org/curated/en/452191554307500821/pdf/Samoa-National-NCD-cost-analysis-study.pdf

Lameko, V, Boodoosingh, R, Schoeffel, P, Aiavao, T, Maua, F, Aiolupotes, SF 2022, 'Survey of healthcare professionals in Samoa to evaluate their knowledge, attitude, and practice on managing obesity', *Pacific Health Dialogue,* vol. 22 no. 9, pp. 565-574. Doi: 10.26635/phd.2022.131

Lin S, Naseri T & Linhart C 2017, *Trends in diabetes and obesity in Samoa over 35 years, 1978-2013*, Diabetic Medicine. 34:654-61. 10.1111/dme.13197

Ministry of Finance 2014, *National Health Accounts Report for FY2014-2015*, Government of Samoa: Ministry of Finance

Ministry of Health 2017, *Non-Communicable Diseases Plan of Action*: 2017-2022, Government of Samoa: Ministry of Health

Ministry of Health 2018, *National non-communicable disease policy 2018-2023,* Government of Samoa: Ministry of Health, viewed January 3 2022, https://extranet.who.int/nutrition/gina/sites/default/filesstore/WSM_2018_National%20%20Noncommunicable%20%20Disease%20Control%20Policy%20%202018%20%E2%80%93%202023%20.pdf

Samoa Bureau of Statistics 2017, *Population and Demography Indicator Summary: Population Census,* viewed January 26 2021, https://www.sbs.gov.ws/population.

World Bank Data 2019, *Crude death rate per 1,000 people in Samoa,* Washington D.C, USA: World Bank. https://data.worldbank.org/indicator/SP.DYN.CDRT.IN?locations=WS

World Health Organization 2013b, *STEPS Survey: Risk factors of NCDS: Samoa 2013,* Geneva,

Switzerland: World Health Organization, viewed December 12 2021, Htpp://:/Users/rleach/Downloads/Samoa-Final-Fact-Sheet-2013.PDF

World Health Organization 2013a, *Global Action Plan for the Prevention and Control of NCDs 2013-2020*. Geneva, Switzerland: WHO.

World Health Organization. 2011. *Samoa NCD country profiles.* Geneva, Switzerland: World Health Organization.

PAPERS PRESENTED AT THE MEASINA CONFERENCE AT THE NATIONAL UNIVERSITY OF SAMOA, OCTOBER 2021

An Evaluation of the Roles and Challenges of Micro, Small and Medium Enterprises (MSME's) during COVID-19. A case study of Apia Town Area, Falelatai and Samatau, Aleipata and Safata Districts, and Upolu Local Government Areas.

Pulou Wright, National University of Samoa

Abstract

Micro, Small, and Medium Scale Enterprises (MSMEs) are the driving force for any economy to develop. Numerous economies rely on this sector to increase their development as they operate to increase GDP, job creation, poverty alleviation, income redistribution and generally industrial revolution. This study aimed at identifying the roles played by these MSME's to national development, the complications, and disruptions they encounter to offer solutions to social and economic growth and development. The 50 MSME's randomly selected from the four (4) Districts of Upolu. The 25 MSME's from Apia town area, ten (10) MSME's from Aleipata, eight (8) MSME's from Samatau and Falelatai and seven MSME's from Safata District. The data was analyzed using a simple mean (average). The findings revealed that Micro, Small and Medium scale industries (MSME's) play a dynamic role as a foundation for state sustainability through job establishment, poverty alleviation, income redistribution, and creation of local industries. The findings also revealed that MSME's face serious challenges that affect their growth and development. These challenges include short term loans, high interest rates, stringent collateral security, insecurity and infrastructural decay, lack of patronage and managerial problems and COVID-19.
Key words: Small and Medium Enterprises, Economy, Income Distribution, Sustainability

Introduction

This paper assesses and investigates the micro, small and medium scale enterprises in the periphery area of Apia town. It looks at 50 small businesses in Apia town and assess their operations and management in terms of financing and revenue making during the Covid-19 crisis. The paper examined the challenges and financial hardships faced by these micro, small and medium scale businesses and adversarial impacts on social and economic experienced by business operators and owners. And how these small and medium enterprises sustain and generate revenue during the Covid-19 pandemic crisis. The paper aims to highlight the business impediments for policy makers and chamber of business and commerce on the current situations and challenges and to provide financing incentive and scheme for MSMEs. The information obtained for this paper are from the questionnaire survey disseminated to the 50 MSMEs within Apia area - Falelatai and Samatau, Aleipata and Safata Districts, Upolu Local Government Areas. The questionnaires were collected tabulated and analysed using the simple arithmetic mean (Average).

The authors as the Samoans with the knowledge and experience of Samoa MSMEs provides substantial insights to help fill the gaps in information on the small-scale businesses operation in Apia area. The study experienced several problems. The greatest challenge is a lot of travel and persuasion

needed to be done to convince the business operators and owners to participate in the questionnaire survey. The relevancy of data, validity and analysing statistics are also of great concern. However, every effort has been made to validate the information contain in the paper. The MSMEs chosen to be part of this study because they are the driving force for any economy development with no exception to Samoa.

MSMEs status and progress in Samoa

MSMEs are important to any economy help generate employment, increase exports, and enhance economic development (Naz & Singh 2010). The MSMEs are classified into two categories: manufacturing enterprise and service enterprise with own respective category. Micro an investment should be less than one (1) employee, and turnover should not be more than five (5) employees, while small an investment should be less than ten (10) employees, and turnover should not be more than 50 employees and medium an investment should be less than 50 employees, and turnover should not be more than 250 employees (Ministry of Commerce, Industry And Labour 2020; Samoa and IMF 2021). The MSMEs in Samoa promote and generate employment opportunities, encouraging entrepreneurial activities, improving the living standards of poor people and increasing the contribution to the GDP of the country (Central Bank of Samoa 2021).

Samoa MSMEs development policy strategy 2020

The Government of Samoa, through the Ministry of Commerce, Industry and Labour (Ministry of Commerce, Industry and Labour), is committed to promoting and encouraging the development of MSME Sector in Samoa (Ministry of Commerce, Industry and Labour 2020). The MSME Development Policy and Strategy 2020 contains six thematic goals to support economic growth: (1) Development of supportive institutional and regulatory frameworks; (2) Provision of appropriate business advice and support; (3) Availability of finance, financial services, and investment; (4) Supply of enabling infrastructure; (5) Availability of an appropriately skilled labour force; and (6) Advancement of a culture of entrepreneurship and innovation (Ministry Of Commerce, Industry And Labour 2020). MSME contribute significantly to national development and employment. According to Ministry of Commerce, Industry and Labour Chief Executive Officer despite of MSMEs significant contribution it faces several constraints hampering their development and growth, which needed government interventions (Ministry of Commerce, Industry and Labour 2020; Economic and Social Commission for Asia and the Pacific 2020). "These include business environment constraints relating to legislative and regulatory frameworks, access to finance, labour supply, business development support, as well as internal constraints relating to business management skills and the capacity to meet financing requirements," said the Chief Executive Officer. The MSMEs Strategic Policy goals and strategies are relevant despite it struggles to grow and sustain the business operations and management during the Covid-19 pandemic crisis (MINISTRY OF COMMERCE, INDUSTRY AND LABOUR 2020). A resilient MSME sector will be a vital contributor towards Samoa's recovery from the aftermath of the COVID-19 crisis. To make them more resilient, competitive, and sustainable. Reliable data, coordination mechanisms and emerging perception would enhance future MSME policy reforms (Economic and Social Commission for Asia and the Pacific 2020). The Chief Executive Officer said the policy will be reviewed the next three to five years while an ongoing monitoring and evaluation of policy goals and strategies are continuing.

MSMEs in Samoa

The government of Samoa under the empowerment program established the economic and empowerment development strategy reforms to help MSMEs develop adding value to the economy (Naz & Singh 2010; Economic and Social Commission for Asia and the Pacific 2020). Today the government has made effort to improve on human capital development through schemes that are aimed at empowering youths to learn and enhance their skills to become self-reliant. There are different kinds of MSMEs found in remote areas and local level government areas (Singh & Naz, 2010). While some of them remain a family business or sole proprietorship business, some operate as small industries such as purify water, bakery, taxi stands, laundry service, PMV bus service, vehicle repairs and others (Naz & Gurmeet Singh, 2010).

Some others are related to agriculture such poultry farming, fish farming and food cultivation, while others are focused on technical knowhow such as mechanical shops, IT centres and privately owned schools. These MSMEs have their own ways to help reduced the level of poverty and unemployment in the rural and urban areas (Singh & Naz, 2010). However, the level of economic activities in the local government is declining as there are series of challenges these businesses encountered. Different disturbances, some banks and big businesses have relocated to other areas of the state making MSMEs activities difficult and the impacts of Covid-19. However, there are series of measures that have recently been put in place to control this threat (Naz & Singh, 2010).

MSMEs challenges

The UN's Director Trade and Investment for Asia-Pacific, Mia Mikic, said "Micro enterprises in Samoa do get proper access and they are covered very well but for the small medium-sized enterprises and commercial finance or their access to the commercial finance only half of the applicants get that access," (United Nations Report 2020; Kean, D and UN 2020). The study identified a need to help Samoan businesses use the financial services available to them and the reasons for lack of access was that applicants fail to submit solid business proposals. Another reason was applicants did not have adequate collateral to offer the banks to assure the lenders about the businesses' ability to collect the financing assistance (United Nations 2020; Samoa and IMF 2021).

The UN's Economic and Social Commission for Asia Pacific and the Central Bank of Samoa launched the micro, small and medium-sized enterprises' access to finance in Samoa report (United Nations, 2020; Kean, D & UN, 2020). Samoa government welcomed the support from ESCAP and the UN's Capital Development Fund (UNCDF). This support and studies assist in carrying out the mission of the Central Bank of Samoa in fostering a sound and vibrant financial system for Samoa's economic development (United Nations, 2020; Samoa and IMF, 2021).

The MSMEs make up a significant contribution to economic growth and job creation across the region. However, they often encounter difficulties in accessing finance financial institutions women-owned due to economic and socio-cultural factors (United Nations, 2020; Kean, D & UN, 2020). The United Nations Economic and Social Commission for Asia and the Pacific (2020) report identifies financing gap, where considerable unmet demand for commercial finance from MSMEs in Samoa, including for women entrepreneurs (United Nations, 2020). Additional support to address constraints encountered by MSMEs to leverage their digital tools to improve and grow their businesses (Samoa and IMF, 2021).

MSMEs lending Institutions

The Global SME Finance Facility was established by the International Finance Cooperation to help the MSMEs in meeting their financial requirements in developing countries (United Nations Economic and Social Commission for Asia and the Pacific 2020). This facility assists the MSMEs by enabling funding, alleviating risk, and offering advisory services. In Samoa, various financial institutions and commercial banks are eligible to provide credit loans to MSMEs (United Nations Economic and Social Commission for Asia and the Pacific 2020; UNCTAD 2020).). New, as well as existing SMEs, are eligible to borrow.

The major supplier of microfinance in Samoa is South Pacific Business Development (SPBD) of Samoa is a for-profit business and a branch of SPBD Microfinance network in the Pacific that has been operating for more than 18 years (UNCTAD 2020; Central Bank of Samoa 2021). SPBD provides micro loans ranging from a minimum of S$ 1,250 to a maximum of S$ 8,000 to its clients, who are all women (United Nations Economic and Social Commission for Asia and the Pacific, 2020). The Development Bank of Samoa (DBS) has been involved in microfinance since 2006 to support the economic empowerment of women in cooperation with the Ministry of Women, Social and Community Development (Central Bank of Samoa, 2021). The initiative increased access to finance for women in both Upolu and Savaii to start projects. However, the initiative was unsuccessful, as the default rate was almost 50 per cent. DBS identified the main reason for this failure on the fact that the nominations of beneficiaries was driven by the MWCSD and the DBS processes of assessing eligibility was relaxed (United Nations Economic and Social Commission For Asia And The Pacific, 2020). The Samoa Business Hub (SBH) (previously known as the Small Business Enterprise Centre, SBEC) recently launched a micro loan and insurance scheme to directly provide loans of up to S$ 10,000 (United Nations Economic and Social Commission for Asia and the Pacific 2020). The aim is to fill a gap in the market not sufficiently addressed by other lenders. Under this initiative, microloans of up to S$ 10,000 can be provided directly to microenterprises that have good repayment track records (United Nations Economic and Social Commission for Asia and The Pacific, 2020; Central Bank of Samoa, 2021).

Women in Business Development Inc. (WIBDI) has adopted a different approach and does not emphasise credit provision. Their successful model works from the market by selecting sustainable market niche opportunities and assisting mainly women and their families in rural areas to participate in the supply chain. In Samoa, WIB works with 1,300 families in more than 189 villages (United Nations Economic and Social Commission for Asia and The Pacific 2020). The market niche opportunities pursued by WIB include organic 'direct micro expelled' (DME) coconut oil, for which Samoa is the sole supplier to the Body Shop UK; organically certified feta oil (calopyhllum inophyllum); coffee, cocoa and organic dried bananas, which are exported to the New Zealand market (United Nations Economic and Social Commission for Asia and The Pacific, 2020). Some small loans, usually only around a few hundred Tala, have been provided to families at a 10 per cent interest rate. However, the focus is for participating women and/or families to save part of their income until they have ST 1,000 (USD 380) in the bank, after which they are referred to a local bank to apply for a small loan if needed (United Nations Economic and Social Commission for Asia and The Pacific 2020; Central Bank of Samoa, 2021).

UNCDF collaboration with ESCAP and the Central Bank of Samoa to further help MSMEs access capital and to address the devastating impacts of the COVID-19 pandemic." In 2020 the World Bank approved funding of $US3.4 million to further support Samoa's efforts to prevent the spread of the virus to the country (United Nations, 2020; Central Bank of Samoa, 2021). The funds are in addition to the $US5.1m already delivered to Samoa for its coronavirus response in March. The additional $3.4m

is being delivered through a dedicated emergency health project, and from the Contingency Emergency Response Component of the Samoa - Pacific Resilience Project (United Nations, 2020).

Research methodology

The study used the Likert scale questionnaire survey to get information on the role of micro, small and medium enterprises based on economic development of Samoa with a case study of Apia Town Area, Falelatai and Samatau, Aleipata and Safata Districts, Upolu local government areas. The total population of 50 SME's were used as the sample size for the research work. They were randomly selected from shops and business (including small manufactures) in the Apia town area. The questionnaire containing 20 questions adapted from the 4-point Likert scale on strongly agree (SA), agree (A), strongly disagree (SD) and disagree (D). The questionnaires collected from the respondents and analysed using the simple arithmetic mean (Average).

Findings

Table 1: Data Presentation and Analysis

	Questions	SA	%	A	%	D	%	SD	%	Total	Total%
1	MSME's are the main businesses in your community	25	50	15	30	2	4	8	16	50	100
2	MSME's are vital for growth and development of your community	23	46	15	30	5	10	7	14	50	100
3	The government assist your business to grow	5	10	6	12	19	38	20	40	50	100
4	MSME's helps to reduce the level of poverty	35	70	10	20	2	4	3	6	50	100
5	MSME's help to reduce the level of unemployment	29	58	15	30	2	4	4	8	50	100
6	As a business man your level of income has increased	7	14	8	16	10	20	25	50	50	100
7	I manufacture my own products	10	20	5	10	15	30	20	40	50	100
8	Commercial and micro finance banks provide loans to SME's at low interest rate	7	14	10	20	13	26	20	40	50	100
9	Loans provided by co-operative societies are short term with high interest rates	29	58	15	30	2	4	4	8	50	100
10	MSME's must provide collateral securities before loans are provided	25	50	15	30	5	10	5	10	50	100
11	Security challenges negatively affect the growth of MSME's	35	70	8	16	4	8	3	6	50	100
12	Shortage of electricity, bad roads and water supply negatively affect the growth of MSME's	30	60	15	30	2	4	3	6	50	100
13	Lack of patronage negatively affects the growth of MSME's	22	44	10	20	7	14	3	6	50	100
14	Cost of raw material affects production and sales and affects growth of MSME's	25	50	15	30	5	10	10	20	50	100

15	Poor managerial skill negatively affect the growth of MSME's	24	48	17	34	5	10	9	19	50	100
16	Provision of long loans at low interest rate boost growth of MSME's	36	72	8	16	2	4	4	8	50	100
17	Provision of adequate security creates a fertile environment for MSME's to strive	30	60	14	28	4	8	2	4	50	100
18	Provision of constant electricity supply, good roads and water supply boost growth of MSME's	25	50	13	26	7	14	5	10	50	100
19	Managerial training and skill acquisition can help MSME's to properly manage and grow business	35	70	8	16	4	8	3	6	50	100
20	Government intervention through subsidy and provision of grants can help MSME's growth	28	60	15	30	2	4	5	10	50	100

Table 1 are responses as to the opinion of the respondents on the problems SMEs face in their growth

Discussion

The 80 percent of the respondents agreed that MSMEs are the main businesses exist and operate within their community. While 20 percent disagreed that MSMEs are not the main businesses around their communal areas. The respondents who disagreed are having their small businesses near and around the large-scale businesses in the Apia two area. The 76 percent respondents believed that MSMEs are significant for the growth and development of their community, whereas 24 percent disagreed. The disagreeing respondents' businesses are near the large-scale businesses, so customers regularly get the services from these big businesses. While 76 percent respondents having their businesses in community where no large businesses are near, so they provide the services and growth to the community.

The five MSMEs respondents strongly agreed that the government assist their business to grow. The other six also agreed with the notion. While 19 respondents disagreed and another 20 strongly disagreed with government providing assistance to small scale businesses. The individuals who believed government supported their businesses to grow see through the social services lens provided by the government like road, electricity, water, and monetary policy. While the 39-disagreeing wanted to see practical things government to give to them like offering subsidies, loans, equipment and other tangible services and stuffs.

The 90 percent of the respondents agreed that MSMEs help reduce the level of poverty within the family households. While four present disagreed and another six percent strongly disagreed that MSMEs do not alleviate their struggle and hardship in living. The majority of respondents saw the small-scale businesses assisted them and other family households in their daily needs. The revenue from businesses provided some incomes for them to meet their needs and wants. The 44 respondents said MSMEs help to reduce the level of unemployment while two disagreed and another six strongly disagreed. Small businesses provided employments for community residents within in their area of

living. The 30 percent of the respondents believed the level of their income has increased whereas 70 percent of the respondents did not see any improvement in their income. The Covid-19 travel restrictions and fallouts have affected MSMEs badly due to delay and inconsistency in shipping travel and schedule. The goods and services prices increased in big and small businesses hindering customers to purchase and place orders.

The 30 percent of the respondents said they manufactured their own products while the 70 percent did not produce their own products. Most goods and services provided by the MSMEs are manufactured overseas and few are the locally produced like the artefacts, traditional food stuffs, local juice, local cocoa, and others. The 24 percent respondents said the commercial and micro finance banks provide loans to SMEs at low interest rate. While 76 percent disagreed with the notion. The government introduced the monetary policy during the Covid-19 period for commercial banks and micro finance institutions to lower their interest rate. Despite of such incentive majority of respondents see the interest rate still high with short term period for repayment. This has negative implication on their business growth.

The 40 respondents said MSME's must provide collateral securities before loans are provided while ten (10) disagreed. Some individuals with small businesses do not have credit facility to offer as collateral security so disagreed with this question. However, others knew one of the loan requirements is the collateral security a businessperson must offer to the bank to get the loan. The 70 percent of respondents strongly agreed, and 16 percent agreed that security challenges negatively affect the growth of MSMEs. While eight percent disagreed, and six percent strongly disagreed. The majority believed that different challenges posed to business will cause hiccups to smooth flow of business operations. For examples, things like Covid-19, weather pattern, policy change, loan requirement, cyber-security and others caused problems to the business.

The 90 percent of respondents said shortage of electricity, bad roads and water supply negatively affect the growth of MSMEs. While ten (10) percent of the respondents did not think so. The majority understood that the social services enhance the growth of businesses to flow smoothly in terms of management and operation of the business activities. Whereas ten (10) percent thought otherwise or did not understand the question. The 64 percent respondents believed lack of patronage negatively affects the growth of MSMEs while 36 said it does not affect the growth of MSMEs. The majority believed a business mentor and guide would help boost spirit of running and managing the business. The 80 percent of respondents agreed that cost of raw material affects production and sales and affects growth of MSMEs while 20 percent disagreed. The large number of respondents seeing buying stuffs from big business houses here are expensive or even purchasing them from overseas. While the minority think not only the cost but other factors like the public relations, location of the business or lack of advertisement affect the growth of MSMEs too.

The 41 respondents said poor managerial skill negatively affect the growth of MSMEs, while nine other respondents disagreed. The respondents disagreeing do not management as an issue likely they are good managers maintaining their business well. Whereas, the others see booking keep, cash flow chart and other documentations are somehow difficult for them manage and maintain. Training and workshop on managerial and management skills would assist the MSME business owners and managers to improve their growth of the business.

Conclusion

The MSMEs within the four districts of Upolu in the Apia town area from Aleipata, Samatau, Falelatai and Safata district provide employment opportunities to local residents and generate income for the business owners and families. Also, they develop the national economy, reduce poverty and stimulate economic development in rural and far-flung areas around Upolu.

Despite of such positive contribution MSMEs bringing into the livelihood of Upolu people they face many challenges during this pandemic crisis of Covid-19. The research study showed that 50 MSMEs surveyed received less assistance from government in terms of subsidy or grant for their business to grow. The cost of raw material is another factor negatively affecting the production and sales of the MSMEs. The lack of managerial skills and knowledge coupling with inadequate training and skill acquisition do not help the MSMEs in the Upolu area to effectively prosper in development growth and expansion. Besides, the loans provided by co-operative societies are short term with high interest rates and the MSME's must provide collateral securities before getting the loans. This does not provide favourable guarantee and conducive circumstance for the small businesses to secure loans easily.

Despite of such hardships, the 50 MSMEs in the Apia town area are working hard to stay afloat during this pandemic period and looking to the aftermath of the crisis to rise and expand their growth and development.

References

Anonymous 2010, *International Journal of Entrepreneurship and Small Business,* vol. 10, no. 4, Doi: 10.1504/IJESB.2010.034028

Naz, R & Singh, GP 2010, 'SMEs in Samoa: journey towards internationalisation', *International Journal of Entrepreneurship and Small Business,* vol.10, no. 4, pp. 499 - 514

Ministry of Commerce, Industry and Labour 2020, *Samoa micro, small and medium enterprises development policy strategy 2020.* Apia: Ministry of Commerce, Industry and Labour https://www.Ministry of Commerce, Industry and Labour.gov.ws/storage/2021/04/MSME-Policy-and-Strategy_FINAL-Publisher-Version_Endorsed_26MAR2021.pdf

United Nations (2020) *Half of Samoa's MSMEs miss out on finance.* Apia: United Nations. https://www.rnz.co.nz/international/pacific-news/424876/half-of-samoa-s-msmes-miss-out-on-finance-un-report

United Nations Economic and Social Commission for Asia and the Pacific (2020) *Micro, small and medium-sized enterprises' access to finance in Samoa.* Apia: United Nations Economic and Social Commission for Asia and the Pacific. https://www.cbs.gov.ws/assets/Uploads/DMS-8/8563MSME-financing-in-Samoa-FINAL.pdf

Samoa and IMF. (2021). Samoa: Staff Concluding Statement of the 2021 Article IV Mission. https://www.imf.org/en/News/Articles/2021/01/25/mcs012521-samoa-staff-concluding-statement-of-the-2021-article-iv-mission

United Nations Conference on Trade and Development (2020). Covid-19: A 10-point Action Plan to strengthen international trade and transport facilitation in times of pandemic. Policy brief. https://unctad.org/system/files/official-document/presspb2020d3_en.pdf

Kean, D & UN. (2020). COVID-19 survey: Majority of Samoans lost income, struggle with debt. https://samoa.un.org/en/87292-covid-19-survey-majority-samoans-lost-income-struggle-debt

Central Bank of Samoa. (2021). June quarterly bulletin 2021. 34(2), 7 – 10. https://www.cbs.gov.ws/assets/Uploads/Quarterly-Bulletin-June-2021.pdf

Soso'o le fau ma le fau. A project for teaching and learning about the Samoan *Fale*

Guliano Bryce, National University of Samoa

Abstract

The famous dome-like structure the Samoan Fale with its complex artistic lashings and curvature to provide a resilient design distinct to the Pacific. This paper describes an intergenerational approach to working with the Samoan Tufuga (master builder), Lesā Faanu and how staff and students of the Faculty of Technical Education (FOTE) at the National University of Samoa were able to learn the knowledge and skills which are used to make of the magnificent structure. A model Samoan Fale was a feature of the NUS Culture Week 2021, where the collaboration of staff and students was evident in its construction from start to finish.

E iai le alagāupu mai aso 'anamua ua lauiloa i atumotu uma o Samoa: "soso'o le fau ma le fau." O le uiga o lenei fa'aupuga, e faigofie lava ona malamalamaina 'auā e soso'o lava le fau ma le fau i le fausaga o le fale Samoa. 'Ā ta'u lea fa'aupuga i le lāuga, e tele lava ona fa'auigaina, peita'i o le 'auga o nei fa'auigaga uma e fa'asino i le manatu lea: e sili atu le tāua o le so'ogafau nai lō o fau 'ese'ese e lua. E tautala le alagaupu i le mālosi'aga e mauaina pē 'ā tu'utasia mānatunatuga, ma fa'atino ni gaioiga i le agaga 'aufa'atasi. E fa'asino fo'i lea fa'aupuga i le tāua o le fa'aauau pea o malamalama'aga mo le fa'atinoga o se galuega e ala i le a'oa'oina o le poto iloa ma le poto masani e sosolo mai le tasi i le isi e pei 'ona māua i le isi o alagāupu "e au i le tauola, e au i le fāgota." 'O le fa'auigaga lea i le manatu a le Afioga ia Lesā Laufale Fa'anū, o se Matua-o-faiva mai le alaalafaga o Sa'anapu. I lona tāofi, e pau lava lea le 'auala e mafai ona mautinoa ai se lumana'i mo le fausiaina o fale Samoa mao'i.

Introduction

There is an old Samoan proverb well known to orators throughout the archipelago: "joining the rafter (*soso'o le fau ma le fau*)." Referring to Samoan house construction, it simply means to join one rafter to another. Used in oratory, the proverb is interpreted in a myriad of ways, but the common theme is the synergy implicit in the notion that the connecting of two separate rafters, the sum, is greater than the parts used. It speaks to the strength that comes from unity of thought, and unity of action. It points to the importance of succession, the imparting of knowledge and experience from one person to another. Lesā Laufale Fa'anū, a master builder from the village of Sa'anapu, referred to this last interpretation in connection with the house-building skills he has mastered that have to be passed on to a new generation of builders if this cultural heritage is to survive (Percival 2021). In Education, Tagoilelagi-Leota (2017) uses this proverb referring to it as the "joining *fau* (bark stripped from the *fau* Hibiscus tiliaceous) with another piece of fau. Used commonly in leadership contexts where a leader is replaced by someone of equal caliber, like the *fau*".

This presentation takes you through the journey of the staff and students of the Faculty of Technical Education in collaboration with a Master Builder Lesā Laufale Fa'anū. Working together, they built a Samoan house (*Fale*) model that was a feature for the Faculty's involvement at the NUS Culture Day 2021. This model now sits at the Centre for Samoan Studies as an educational resource and tool. I lay out this presentation in three parts, starting with the Samoan welcoming ceremony (Ava ole *feiloa'iga*), then looking at the teaching and learning journey that took place and concluding with the Samoan closing ceremony (*Ava ole fa'amavaega*).

Ava o le Feiloa'iga

At the start of the project, when Lesā started the teaching process, he began the day with a ceremony that he prescribed as a debriefing time where we give glory to God for a new day, and also seeking strength and guidance from the Lord for the challenges ahead in the building. The Ava Ceremony is a serious part of the process of constructing a main house (*fale tele*). The students of the National University of Samoa performed this which allowed them to be one with their culture and adhere to the construction roles and the responsibilities required on site.

Large *fale* are referred to as *fale* tele (round, used for meetings or receiving guests) or oval house (*fale ofulau*, which may be used as the residence of a high ranking chief). When it serves as the guest house for a high ranking chief the *fale* tele is referred to as the guest house (*fale tali malō*). Smaller *fale* are also built for sleeping or working, using the same construction principles. Thoughout Samoa these traditional structures are rapidly being replaced by modern structures using imported roofing iron, timber and concrete.

The *Fale Tele* Project aimed to share the skills and knowledge used to build a Samoan *fale*. The Faculty of Technical Education collaboratively engaged with the builder (*tufuga fau fale*) and the construction team, to retain these skills and learn through an intergenerational approach with the Master builder. The significance of having Lesā join in this project and process is likened to the part of the proverb "*soso'o le fau*" or joining the rafter. He comes with traditional knowledge and methods with little aid of the technological era. "Systems change but the basics remain the same" (*E sui faiga ae tumau faavae*), this Samoa cultural saying befits the work that was carried by the *tufuga* Samoa. The much-anticipated urge from the *tufuga* was for the National University of Samoa to build its own Samoan *fale tele* fully built using one hundred percent Samoan methods, one hundred percent Samoan resources and materials.

Site Visit and data collection

FOTE Team's first approach was to collect information on how to build a Samoan fale tele. We were privileged enough to have a walk in Galumalemana Steven Percival's *Fale Tele* structure, standing in his home and residence in Malololelei. One of the main proverbs we learned from this visit was "*Mapu i sasaga, asu o faamatua*". Smoke from burnt logs disperses under the main frame of the Samoan fale, meaning any differences or issues are resolved under the main frame of the *fale*. From this visit we were able to identify the different parts of the fale for the next steps in building the model.

Soso'o le Fau ma le Fau

The process of building the model Samoan *fale* model took three weeks. The carving of the rafters took place first, followed by the debarking of all the natural materials in preparation for the build. Questions and storytelling (*talanoa*) took place between the builders and the staff and student building understanding and capacity of the various methods used for the build. This includes the appropriate materials and why they are used for building certain parts of the *fale*.

Different lashing techniques were taught, cutting and shaping the different parts of the build were conducted intentionally and in detail with the Master Builder. This in essence is why the proverb used for this paper, encompasses this passing on of knowledge and skill. "The adjoining of rafters" which means to continue living our culture and traditions through an intergenerational process between the old and young, the skilled and the learners. The work highly highlights *soso'o le fau ma le fau* through my work with the master builder (*matua o faiva* or the *ta'ita'i tufuga*). The work must

continue, and the FOTE staff and students through this project have retained this knowledge and skills of Samoan Fale Construction. The investment also goes back to NUS as a teaching and learning resource.

Historical significance

This project comes with emotional attachments to history. With reference to the first parliament building of Samoa, which was sadly demolished in 2012, the motivation is to build resilience and awareness in maintaining Samoan historical treasures. Building capacity through collaboration with Samoan master craftsmen and enlarging these trainings through university platforms, will hopefully plant the seed and create safekeeping measures for the Samoan Fale.

The work we completed with the *tufuga* and his team over the course of three weeks, has equipped the NUS Staff and students with the necessary skills and knowledge. The Samoan Fale Model, a product for NUS Culture Week 2021, is now a teaching resource and device for the Centre of Samoan Studies.

Teaching & Learning Journey

Proverbs/Alagaupu

The following proverbs were collected in collaboration with the Master Builder and his team (2021) during the process of teaching and learning.

"Mapu i sasaga asu o faamatua". When smoke comes into contact with the *"sasaga",* it disperses or breaks up. (Meaning, it is under the *fale tele*, where any issues or problems are solved)

"A gase poutu, e le tatali pou lalo". When the three main posts are disfigured or damaged the under posts will not hold. (Meaning, when bureaucracy or decision-making is corrupt, then the rest of the society will experience disputes or differences resulting in the closure or end).

"Ua matagofie atuao, ae tasi lona, ole fau ua nofoi fa'ata'ifau". The under posts are straight and level, but the rafters sit like a dog. (Refers to someone who only choose to respect a few parts of culture)

"Faataoto ia le 'Au'au ae se'i o tatou velo aso". Set the ridge, we want to install the purlins. (Meaning, set the agenda, start the meeting, we would like to share our thoughts).

"Ua fa'ala'au sautia le tauso'aga". The interlocking members of the main frame have been expired over the years. Damage from the coolness of the upper part of the fale or the top part of the ceiling of the fale. (Meaning, when the meeting has taken too long or something has been discussed too long than its allocated time).

Fa'alupega

The following is the *fa'alupega* (greeting speech that refers to the foundation and recognition of the important leaders of a village) that was derived from engaging with the Samoan *fale* model:

Afio maia le Agai o Tupu ma le fale fa o lo tou Aiga Sa Le Malama. Respectful welcome to the four bestowed Master Builders Segi, Leifi, Solofuti, Moe

The *Poutu*: the trinity of the *Fale Tele* Model.

The poutu which is the central part of the fale tele represents three entities which hold up the structure of the building represents the Matai, Sa'aoao and Tama'ita'itai & Taulele'a. (chiefs,

daughters and sons of the village. In our learning journey it represented discipline, commitment and loyalty.

The Parts of the Fale Tele that were identified in our learning journey were made up of: *Atuao/ Pou lalo, Poutu, Fau lalo, Fau Luga, Fatuga, La'au Matua, So'a/ Tali So'a, 'Au'au, 'Aso, Pae 'aso, Niu fafo, Moamoa, Amo pou.*

The materials for building included*: Niu Vao* (a variety of coconut palm), *Poumuli* (a variety of timber for posts), *Toga Vao* (a type of wood), *Ulu* (Breadfruit wood).

Intergenerational Approach

Through storytelling and sharing of proverbs; the passing and retaining of skills and knowledge; the observation and questions and the hands on and practical learning was instrumental in the success of the project. From the Master Builder, to the lecturer, to the students, different generations participated and took part

The photos must be able to elaborate on much of the intergenerational approach. This is how the Tufuga was able to pass down the knowledge and skills, and it was also the same approach he (*tufuga*) learned from his ancestors, the rich pool of knowledge in the making of the Samoan Fale.

The FoTE staff have now retained the skills and knowledge from the Tufuga fau Fale, *"Soso'o le fau ma le fau".* The intergenerational approach has built a bridge between gaps. The National University have retained the skills and knowledge through ongoing conversation and collaborations, data collection on site while doing the work, practical learning.

Collaborative Approach

This project brought together six programs for the very first time for a common goal to achieve what we now have standing in the CSS Museum.

These programs are all under the Faculty of Technical Education: Electrical Engineering, Fitting and Machining, Radio and Electronics, Construction Trades, Welding and Fabrication, Refrigeration and Air Con, Automotive and Plumbing programs collaborated through the sharing of resources.

Out of an intergenerational approach and the collaborative approach, FOTE Students were able to hear from history and culture, ways we can adapt and become resilient to the pandemic.

This conference's theme is on resilience during this global pandemic. I offer the following as lessons learned from this journey of building the Samoan *Fale*. Having to work with a traditional based and culturally based methods and ideas, a big question of uncertainty regarding modern methodology of building and regulations emerges. How can retaining this traditional knowledge be beneficial we move forward to hopeful post-covid era in building. A collaborative approach offered us an enhanced platform of learning. This brought the faculty to work together and together we celebrated this achievement. It also made us forget about Covid, because of the resilience built through discipline, commitment and loyalty to the cause.

I draw on the The Fonofale Model of Health (Springboard Trust, 2021), which I find interesting that they use the Samoan *fale* to offer a model for mental health and wellbeing. The different parts of the *fale* represents different parts of a person and their community, offering this holistic view on building resilience. As noted by the Springboard Trust (2021) "it is critical that we apply a culturally competent lens to everything we do that involves Pacific or indigenous people - especially in schools". Models like the *fonofale* help both leaders and learners learn and grow as themselves (Springboard Trust 2021).

Ava O Le Fa'amavaega

All good things must come to an end, and therefore, we end with an Ava Ceremony. Whereby the *Tufuga* uplifts everything to God for the journey and bless the completed *fale*.

Inspiration in our Learning.
The outcome of this project has built confidence in our teaching to collaborate with industries in a holistic view in a 100% funded project like building a *fale tele*, and it may be our answer to building resilience and a response to Covid. In utilizing our skills and knowledge in the Faculty of Technical Education.

Resilience through Inspiration and Insight
- Documenting the work that we have done together.
- Demonstrating how TVET/FOTE students and staff can collaborate for learning cultural skills.
- Sharing how we can all learn from what we have done in building resilience during this Pandemic.

Acknowledgements

Reference

Percival, S (2021) Personal communication. 10th August. Tiapapapata Art Gallery.

Springboard Trust (2020) A resilient home: The Fonofale Model of Health.
        https://www.springboardtrust.org.nz/news/a-resilient-home-the-fonofale-model-of-health

Tagoilelagi-Leota, F, F (2017) Exploring what factors contribute to Samoan children's cultural and language security from the Aoga Amata to Samoan primary bilingual classrooms in Aotearoa/New Zealand. Unpublished PhD thesis, Auckland University of Technology

The Spirit of "It Is What It Is": Emotional Resilience and Entrepreneurship in the Midst of Tourism in Crisis

Masami Tsujita, Postgraduate Development Studies Programme, Centre for Samoan Studies, National University of Samoa

This paper will look at how Samoa's tourism sector operators have coped and built their resilience during the time of global pandemic. It argues that their strong spirit of resilience and entrepreneurship that keep them moving forward in the seemingly never-ending challenges faced by Samoa's tourism sector. The study was inspired by the presentations given by accommodation owners during a class field trip undertaken by Development Studies programme at National University of Samoa in September 2021. These accommodation owners have given permission to use excerpts from their presentations.

Tourism has become one of the most significant divers of sustainable development of developing economies including Samoa as it generates much needed foreign exchange, investment, and employment. Tourism, however, is extremely susceptible to external forces including war and terrorism, economic and political crisis, and natural disasters. In fact, Samoa's tourism sector has faced successive challenges including the devastating tsunami in 2009, cyclone Evan in 2021, cyclone Gita 2018, the measles outbreak in 2019, and currently COVID-19. Samoa's national borders have been closed since March 2020 with no international tourist arrivals for over 19 months. The International Monetary Fund (IMF) projected Samoa's economic growth for the fiscal year of 2021 would be contracted by 7.8 percent (International Monetary Fund 2021) but the impact of such long-term border closure on tourism sector cannot be measured simply by economic terms.

Tourism has been a key source of development of Samoa for the last few decades and its importance has grown remarkably. In 2019, the tourism sector accounted for about 25 percent of national GDP, employed 15 percent of the country's workforce, and generated one third of foreign exchange earnings (Ministry of Finance 2021). The number of international visitors has grown at the rate of four percent annually for the last 20 years. In 2019 alone, approximately 180,000 tourists visited Samoa.

The Samoa 2040: Transforming Samoa to a Higher Growth Path, the national development plan published in March 2021, provides a roadmap to stimulate economic growth for the next 20 years. It looks at economic opportunities with highest potential and identifies tourism as one of the four crucial areas that will determine the future of Samoa's prosperity. According to Samoa 2040, Samoa has the potential to be a prominent tourist destination in the Pacific region and host as many as 400,000 visitors annually by 2040. That number of visitors would boost Samoa's total tourist spending to SAT$1.7 billion and significantly enhance the national GDP. By 2040, a mature tourism sector could employ about 22,000 people and generate substantial demands for local products (Ministry of Finance 2021).

Serious challenges are unavoidable, but Samoa 2040 sees the COVID global pandemic as an opportunity to reset the tourism sector and address some structural issues that have constrained the further growth of tourism (Ministry of Finance 2021, p. 15). Samoa's competitiveness in the Pacific

Islands tourism has been held back for various reasons including limited air access. Despite the rise in the number of international visitors, Samoa's market share on air arrivals in the Pacific Islands region has remained around 8 percent while the neighbouring country Fiji accounts for over 40 percent (South Pacific Tourism Organisation 2018). The number of accommodations and rooms has increased significantly over the last 10 years, but demand has not yet kept pace with the growth of supply. Accommodation owners have suffered from low occupancy rates especially during the low season, thus limiting their capacity to maintain and improve hotel standards (Samoa Tourism Authority 2014; Ministry of Finance 2021)

According to a visitor survey, lack of public facilities, unsatisfactory hospitality and service standards, relatively high prices despite the poor quality, and social issues including prevalence of rubbish and activity of child vendors are some of the aspects that do not appeal to of tourists. Samoa 2040, therefore, suggests utilizing this quiet period to address some of these impediments and improve Samoa's competitiveness in the Pacific tourism market for a longer term (Ministry of Finance 2021).

The local newspaper Samoa Observer, however, presents another view. An article titled 'Samoa 2040: Beating the dead horse of tourism', published by the editorial board on 13 March 2021, maintains it is the time to give up the idea of tourism-led development. The article points to Samoa's small market share in the Pacific tourism despite the considerable funding has been poured into the sector. The fact that tourism levels have remained about the same for two decades, makes them wonder 'if we are just beating the same half-dead horse?' (Samoa Observer Editorial Board 2021b). The uncertainty of international visitor arrivals due to the border closure and unpredictability of tourism sector due to climate related events are additional issues which led the editorial board to question the future of tourism. They ask if Samoa should shift its focus to other areas like agriculture and fisheries, digital economy, or labour mobility for the country's future development.

Since Samoa 2040 was published under the previous government, the new government may have different views on tourism-led development. Nevertheless, there has been a growing concern about relying heavily on tourism for Samoa's development because of the industry's high vulnerability to internal and external shocks. For instance, the 2009 tsunami destroyed the majority of coastal infrastructures for tourism on the southeast of Upolu including most popular beach *fales* and resort hotels. This deadly tsunami spread a negative image of Samoa as an unsafe destination for tourists (Jiang et al. 2015). Furthermore, frequent tropical cyclones and sea-level rise have caused considerable damage to tourism infrastructure and the COVID induced border restrictions have created unprecedented uncertainty about international tourism. All these events illustrate the high vulnerability of Samoa's tourism.

The long absence of tourists has had multidimensional impacts on Samoa's economy but most severely on the tourism sector. According to International Monetary Fund (2021) job losses due to the pandemic are concentrated in tourism and related sectors. Within one month of border closure in late March 2020, 70 hotels and tourism-related businesses were closed, leaving 1,000 people without employment. For instance, Return to Paradise Resort gave 100 out of 130 staff extended leave. Saletoga Sands Resort & Spa laid off 120 of 150 staff members. Sheraton's two resorts laid off 480 out of 600 staff. By the end of 2020, many more hotels and tourism-related businesses laid off most of the staff or retained them on reduced work hours (Connell and Taulealo 2021).

No tourists means little or no income for the owners of tourism-related businesses. Many tourist sites in Samoa are owned by either a village or a family that collect entrance fees from visitors. A common entrance fee at popular spots like To Sua Trench is SAT$20-30 per person, which could generate several hundred tala a day. This is an important source of income especially in rural areas where cash income generating opportunities are otherwise very limited (Connell and Taulealo 2021). Other tourism-related businesses like bars and restaurants, car rentals, taxis or even musicians who play at hotels or restaurants also lost their income sources.

The nonexistence of tourists has decreased the demand on local market, affecting the income of local suppliers. As hotels and restaurants need less much food, local farmers and fishermen have no other place to sell their products. Urban markets are also affected by oversupply of local products like handicrafts. According to a UN ESCAP report, women in cottage industries for handicraft production have lost their income source as a result of the tourism sector collapse (United Nations ESCAP 2020). Overall, Samoa is experiencing a considerable reduction in employment, which has increased the poverty rate especially among women and youth whose participation in formal employment is limited (International Monetary Fund 2021).

Tourism sector operators and workers who had lost their employment and businesses, have adopted a wide range of strategies to cater for the loss of income. According to a Massey University researchers' report on the adaptability of Pacific Island tourism operators and workers (Scheyvens and Movono 2020), 60 percent of study participants from the region experienced a significant decline in financial wellbeing. Interestingly, despite the financial hardship, many of them indicated their mental wellbeing was improved as a result of having more time with family and more time to do other things. In other words, they enjoyed a less stressful lifestyle outside the tourism setting.

Physical wellbeing also improved because of returning to the land, engaging in more physical activities such as farming, gardening, fishing, and doing work around the house. These adaptations led to a more sustainable life style. Some respondents even described the impact of COVID-19 as a 'blessing' or 'wakeup call' that provided them the opportunity of renewal. One might, however, ask where their optimism and ability to manage mental wellbeing in the mid of tourism in crisis comes from? The report attributes such optimism to Pacific people's appreciation for the social and cultural gains that stem from returning to land and family, in addition to their Christian faith that gives them strength. A look at what tourism operators in Samoa say, provides additional context and raises more questions.

Annandale (2021) of Sinalei Reef Resort & Spa, Samoa's first luxury boutique hotel located at Siumu, and Afioga Taufua Sili Apelu of Taufua Beach Fale, one of the first and most established beach fales located in Lalomanu, shared their views with students on the aforementioned class field trip (Apelu 2021). Their accommodations are located on the southeast coast of Upolu, one of Samoa's most vulnerable locations to natural disasters. Yet, they were able to see things in a positive light during these hard times. Taufua Sili (Apelu 2021), for instance, actually mentioned he was enjoying this quiet time, being away from busy life of dealing with in and out of international tourists every day for last few decades. He now has more time with family, children, and grandchildren, which he has not had for a long time. For a large-scale business owner at the forefront of tourism crisis, suffering from immense financial damage, dealing with enormous pressure under uncertainty and so many responsibilities for family, employees and village, to say 'I'm enjoying this quiet time' illustrates a

strong resilient mind-set. Given the scale of businesses they operate, one can easily imagine that they are not genuinely enjoying such prolonged period of lockdown and travel restrictions. Still, they are able to see their current hardship in a positive light and describe it with hope. Such emotional resilience is, I would argue, built upon the spirit of 'it is what it is'.

Annandale (2021) used the phrase 'it is what it is' multiple times when he described the hardships he went through due to cyclones, the tsunami, and the measles outbreak, and most recently COVID pandemic. Although Taufua Sili did not use the same phrase, he demonstrated the same spirit, that is, the spirit of 'it is what it is'. According to Dictionary.com, 'it is what it is' is an expression used to describe a challenging situation that cannot be changed and must be accepted. In short, deal with it (Dictionary.com 2021). For these accommodation owners, however, it is a spirit of courageously accepting the reality—the reality of how much they have lost and the reality of hardships they face— but firmly determining to move forward regardless. They have cultivated this spirit of resilience as they have gone through consecutive extreme challenges in operating big business in the Samoa's most vulnerable sector, namely tourism, and at locations most vulnerable to climate related events. Furthermore, their entrepreneurial behaviours have made this spirit of 'it is what it is' stronger and more sustainable. In other words, their high adaptive capacity emerges as resilience and entrepreneurship intersect. Emotional resilience reinforces entrepreneurial objectives while entrepreneurial approaches nurtures resilience (Korber and McNaughton 2017). Although this study is based on the view of two accommodation owners, it still contends the resilience of Samoa's tourism sector is underpinned by the emotional resilience and entrepreneurship skills of these businessmen and businesswomen who refuse to give up.

They accept 'it is what it is' and continue their endeavours. Tourism sector operators have used this quiet time to upgrade their skills and preparing physically and psychologically for the reopening of international tourism. With support from the Events Marketing and Distribution (EMD) Samoa, Samoa's only marketing company, Samoa Tourism Authority (STA) has organized digital marketing trainings for tourism related business owners and employees to make their business more visible virtually using social media like Facebook. Many of the training participants have now developed their own Facebook page and posted pictures, stories, short clips, and special deals to promote their accommodations to both international and local tourists.

At the same time, the STA and EMD have initiated a series of campaigns to more effectively target the domestic tourism market. The first campaign called Talimalo (hospitality) offered various accommodation and meal packages with reduced prices designed especially for couples, families, and friends. It targeted accommodations in Savai'i where the impact of the absence of international tourists hit harder than that in Upolu. The STA even invited local journalists to a tour to Savai'i to promote the big island's natural beauty (Samoa Observer Editorial Board 2020). In October, White Sunday in Aleipata campaign involved several beach *fale* operators who worked together to bring more local guests to Aleipata during the long holiday weekend. A Palolo Deals promotion in late October, offered different packages for locals to participate in palolo[i] fishing. In addition, many accommodations offer special deals and packages with much reduced prices to attract local market. Saletoga Sands Resort & Spa, for instance, offers a villa at the cost of SAT$180 per night for two people including breakfast, which is a significant discount from the regular price of NZD$385 (SAT$680) per

night. As a result of these efforts, domestic tourism seems to have grown although is still limited to particular resort hotels on Upolu on weekends and holidays.

---

[i] Palolo is the spawn of a sea organism which rises to the surface of the sea at predicable phases of the moon, and is a caviar-delicacy.

In conclusion, I would ask a question in conjunction with the conference theme—Enhancing Samoan resilience during the pandemic: Are you willing to take part in enhancing the resilience of Samoa's tourism sector during the pandemic? If your answer is yes, the next move is very simple. Go on a 'vacation'. Take time for a relaxing getaway with your family, loved ones, or friends and spend a night at a hotel or beach *fale*. The concept of taking a vacation or spending money to relax is yet to be part of Samoan culture. But why shouldn't we spend less on *fa'alavelave* and more on our own family, and take them on a vacation? Why shouldn't we take advantage of reduced accommodation prices and make taking a vacation a new norm in Samoa? Such participation would support the growth of domestic tourism and is what accommodation owners is looking for. The three aforementioned accommodation owners had the same response when asked, "How can we, as a member of the community, help you and your business?". They all said, "Come and stay at our place".

In the late October, the government announced a SAT$5 million of stimulus package for tourism sector operators which aimed to revitalize the industry (Samoa Observer Editorial Board 2021a). This is a timely and needed support. It is, however, a onetime offer used mainly to renovate or maintain their properties. For long term support, accommodation owners need guests. The loss caused by the absence of international tourists cannot be offset by domestic tourism, but domestic tourism would help accommodation owners keep some employees and maintain facilities and properties. So I ask again, are you willing to take part to enhance the resilience of Samoa's tourism sector by taking a vacation and taking your family for a hotel getaway? A solution is in your hands.

Reference

Annandale, TJ 2021, 'Samoa's tourism development and challenes faced by accommodation owners in the midst of COVID-19', in *Development Studies Programme field trip*, Sinalei Reef Resort & Spa, Samoa.

Apelu, TS 2021, 'Samoa's tourism development and challenges faced by accommodation owners in the midst of COVID-19', in *Development Studies Programme field trip*, Taufua Beach Fale, Samoa.

Connell, J & Taulealo, T 2021, 'Island Tourism and COVID-19 in Vanuatu and Samoa: An Unfolding Crisis', *Small States & Territories*, vol. 4, no. 1, pp. 105–124.

Dictionary.com 2021, *Slang Dictionary: it is what it is*, viewed on 14 December 2021, https://www.dictionary.com/e/slang/it-is-what-it-is/

International Monetary Fund 2021, *Samoa 2021 Article IV Consulation-Press Release; and Staff Report, IMC Country Report No.21/56*, IMF, Washington, D.C.

Jiang, M., Calgaro, E, Klint, LM, Dominey-Howles, D, DeLacy, T & Noakes, S 2015, 'Understanding climate change vulnerability and resilience of tourism destinations: An example of community-based tourism in Samoa', in Pratt, S & Harrison, D (eds), *Tourism in Pacific Islands: Current Issues and Future Challenges*, Routledge, New York.

Korber, S &McNaughton, RB 2017, *Resilience and entrepreneurship: a systematic literature review*, *International Journal of Entrepreneurial Behavior & Research*, vol. 24, no. 7, viewed 13 December 2021, https://www.emerald.com/insight/content/doi/10.1108/IJEBR-10-2016-0356/full/html

Ministry of Finance 2021, *Samoa 2040: Transforming Samoa to a higher growth path*, Ministry of Finance, Apia, Samoa.

Samoa Observer Editorial Board 2020, 'Domestic tourism a fine idea; but it must be realised', *Samoa Observer*, 20 September.

Samoa Observer Editorial Board 2021a, '$5 million tourism cash intervention timely', *Samoa Observer*, 18 October.

Samoa Observer Editorial Board 2021b, 'Samoa 2040: Beating the dead hourse of tourism', *Samoa Observer*, 13 March, https://www.samoaobserver.ws/category/editorial/80735

Samoa Tourism Authority 2014, *Samoa Tourism Sector Plan 2014-2019*, viewed 12 November 2021, https://pafpnet.spc.int/attachments/article/684/Samoa-Tourism-Sector-Plan-2014-2019.pdf

Scheyvens, R & Movono, A 2020, *Development in a World of Disorder: Tourism, COVID-19 and the Adaptivity of South Pacific People*, Massey University, Institute of Development Studies Palmerston North, New Zealand.

South Pacific Tourism Organisation 2018, *2018 Annual Visitor Arrival Report*, *South Pacific Tourism Organisation*. Suva, Fiji, viewed 11 Dewcember 2021, file:///G:/BackupNov2021/Publications/Measina a Samoa 2021/Literature/2018-Annual-Visitor-Arrivals- ReportF.pdf

United Nations ESCAP 2020, *Micro, Small, and Mdeium-sized Enterprises' Access to Finance in Samoa: COVID-19 Supplementary Report and Recommendations*, viewed 1 December 2021,https://www.unescap.org/sites/default/d8files/2020-09/Samoa_COVID-19_report.pdf

Samoan Student Resilience in Higher Education: what we can learn as we progress through times of uncertainty

Rosa Filoi, National University of Samoa

Abstract

Resilience amongst vulnerable groups of students in higher education offers insights into building resilience in times of uncertainty. This paper draws on findings from research on the perceptions of students of higher education at NUS where student resilience was a strong theme. This presentation sheds a light on how students develop their resilience and why. It also brings to light the case of the Nofo a'oga (the school boarder) as a vulnerable group on campus, who despite all odds are able to overcome adversity in their educational journeys. These lessons can teach us practical ways to overcome the many fears and anxiety of the global pandemic that we continue to face today.
Keywords: Student resilience, Higher Education, Samoa

Introduction

In this presentation, I focus on what we can learn about Resilience from our students in higher education. I draw on a study that I conducted in 2019 for my MA thesis titled Students' Perceptions of higher education in Sāmoa: *Finagalo fa'aalia o alo ma fanau a'oa'oina i le Iunivesetē Aoao o Sāmoa*. This was a qualitative study where 19 students and 1 support staff of the National University of Samoa were interviewed using a blend of Pasifika methodologies underpinned by Talanoa (Vaioleti, 2006) and Fa'afaletui (Tamasese et al, 2005) in conducting the interviews.

At the heart of my study is the story of a Samoan student in higher education, who never left Samoa to be told. Most of the studies I had read about educational journeys in higher education were centred on Samoan students in higher education outside of Samoa. Below is a summary of the participants in his study.

Table 1: Summary of Participants

Gender	13 females		6 males
Age range	19 – 27 years old		
Faculties	Faculty of Arts: 7 students Faculty of Business and Entrepreneurship: 8 students Faculty of Science: 4 students		
Year of study at NUS	First year Year – 1	Second Year – 12	Third Year – 6
Scholarships	16 students sponsored		3 students not sponsored
First Generation student in University	Yes – 9		No – 10
Previous Secondary School	Urban– 17		Rural– 2
Island	Upolu – 16 students		Savai'i – 3 students

Defining Student Resilience

In defining the term or concept of student resilience and resilient students, the following can be offered. "Resilient students come from disadvantaged backgrounds yet exhibit high levels of school success" (OECD, 2011). An international Perspective defines a resilient student as "the one who outperforms her or his colleagues sharing the same socio-economic background" (OECD, 2011). Whereas, a within country perspective state that "resilient students as those who fall in both the bottom third of their country's socio-economic background distribution and the top third of their country's performance distribution on the PISA science assessment scale" (OECD, 2011). Mestre et al (2017) refers to resilience as a personality trait and resilience as a developmental factor. It is also a dynamic process, changeable over time and influenced by the environment (Lee et al. 2013). Consequently, resilience is a process of adapting well in the face of adversity (American Psychological Association, 2012).

Challenges identified by students (before the Pandemic)

The challenges identified by the students in this study included transitioning, which took place in two ways: from high school to foundation level and from foundation level to degree level. Secondly was the lack of resources and infrastructure which impacted on the way students perceived the university, particularly the lack of computers, and equipment for science students. The impact of scholarships impacted on the motivation of students to continue their education as well as the new found freedom university life offered them as young adults. And lastly, the frustration with lecturers, which in my study re-emphasized the importance of the role of the educator. This last challenge can be emphasized by the following quote from one of the participating students:

> *"I don't know if I should say this like teachers, they're not I can't go into detail with this but sometimes I feel belittled rather than educated sometimes. I can't really say."*

The case of the School Boarder (Nofo A'oga)

Of my sample three students were school boarders; a school boarder is usually from rural areas of Upolu and Savai'i far from the university, who live with people who are not their immediate families. The people they board with may be relatives or people with ties to the villages the students are from. Two of them shared the challenges they faced whilst attending university. They had unsupportive families who did not understand the expectations they had as university students which often caused misunderstanding and miscommunication with their host families. I argue that these students face a double struggle; the general struggles with other students, plus the unique struggles of being a boarder (*nofo a'oga*). Of the three students, two were females and one was a male. He had a successful transition experience compared to the two girls, who eventually moved to more supportive homes for the remainder of their studies.

Resilience of students in my study:

Although these challenges as identified by the students existed, the students themselves were able to cope and find ways to adapt to the reality of their institution of higher learning. I consider this resilience, and it was demonstrated in the following ways.

For the Science students, they showed resilience by working together, as a solution to the lack of resources for their labs:

> *"Even though lack of chemicals…we accept it, we share it, we go with it. Like our last lab. Some are doing it. [Some] observe and some are writing it. It's a quicker way of doing things when there is a lack of resources."*

> *"My friends, working as a team doing assignments [together]. If we all get it wrong we all get it wrong together. If we get chased out of class, we get chased out of class together."*

The resilience towards lecturers was that they accepted that they were learning from the best in the field with high level achievements who were PhDs, and one was an Associate Professor.

> *"I know they're kind of harsh sometimes but they give the best advice for you know on how to deal with my academic life. Kids see them as you know the strict ones, but then there is something about them that helps you move up, to try and reach their level. Yeah, um yeah. But the teachers are good."*

> *"Teachers have their own way of bringing out what they are, it's our job as students to interpret it, interpret the information and make sense of it ourselves."*

The following quotes demonstrate how this student accepted the challenges he was facing as part of his learning experience. The same student seeks a higher standard of living as a motivation for success.

> *"Don't expect too much from the school [be]cause some that's why some students struggle because they complain too much…So I need them to work with… whatever NUS is gonna give you go through it I mean if it's gonna be challenging for you especially with teachers (laughs) don't worry their telling offs will eventually finish. But for you and your own benefit achieve what you came here to achieve."*

> *"I envy some kids. I envy the life of other people. I want that life. They don't have to work outside. They have cars. I want to lift up what I have now if I achieve this goal. It motivates me to do well in my studies … It will help me and my family."*

Other factors that contributed to building this resilience came from their role within their families, to be a role model (for those who were the eldest in the family) and to be a provider (succeeding means securing a good job to provide for the family). Solidarity with their peers was another one as demonstrated by the Science students earlier. The institutional support on campus provided by Student Support Services and student- led initiatives was also identified and lastly faith communities.

This resilience reaffirms what the NUS Strategic Plan 2017 – 2021 urges: to not be defined by campus boundaries (National University of Samoa 2017). This also aligns with Epeli Hau'ofa's plea to Pasifika people that "we should not be defined by the smallness of our islands but in the greatness of our oceans. We are the sea; we are the ocean. Oceania is us" (Hau'ofa, 1994).

Since the Pandemic:

Since the Pandemic shut down students on campus have organized themselves and provided activities that offer support to fellow students. I can document a few facilitated by the Peer2Peer Initiative Group at NUS in 2020 which included a Fun Day facilitated by students for students. In 2021, Soulful Weaver Fridays was launched as a safe space for fun educational activities to break away from studies (Ieremia & Ah Ching, 2021); one of these Fridays was to hold space when there was a suicide case that was a NUS student during study week. Later, Suicide Prevention Day was commemorated in semester 2, 2021 on the theme "Celebrate Life" to offer motivation to students. In 2020, funding through NUSSA was readily accessible to support such activities, sadly in 2021 most of these initiatives were funded by the students themselves. It is the hope that NUSSA will look at being more enabling and supportive of student-led initiatives on campus, as well as the university management.

Recommendations:

I offer the following recommendations in this presentation, and that is for NUS to:

- Identify and acknowledge vulnerable groups on campus: *such as the Nofoa'oga* and also the further impacts of the Pandemic on this group.
- Enable and support our student led initiatives on campus (with funding) – like the Peer2Peer program
- Create more opportunities for our students to build "solidarity" – NUSSA & NUS.

I conclude with the following quote from on my participants in my study, who was a student at the time, demonstrating the resilience our students develop here NUS:

> *Do not give up easily. Nothing can be obtained with ease. If you don't sweat, you won't get a good future for your family. Always remember there are people waiting for you, there are people who look up to you…Put God first in everything that you do…Put God and family first in everything and always think about them then you won't give up*

References

American Psychological Association 2012, *Building your resilience* *https://www.apa.org/topics/resilience#:~:text=Psychologists%20define%20resilience%20as%20the,or%20workplace%20and%20financial%20stressors*.

Hau'ofa, E 1994, 'Our Sea of Islands', *The Contemporary Pacific*, vol. 6, no. 1, pp. 148–161. http://www.jstor.org/stable/23701593 m n

Ieremia, A & Ah Ching, Z 2021, 'Peer2Peer Initiative launches: Soulful Weaver Fridays', *National University*
        of Samoa https://nus.edu.ws/peer2peer-initiative-launches-soulful-weaver-fridays/

Lee, JH, Nam, SK, Kim, AR, Kim, B, Lee, MY, & Lee, SM 2013,   Resilience: a meta-analytic
        approach. *J. Couns. Dev.* 91, 269–279. doi: 10.1002/j.1556-6676.2013.00095.x

Mestre, JM, Núñez-Lozano, JM, Gómez-Molinero, R, Zayas, A, & Guil, R 2017, 'Emotion
        Regulation Ability and Resilience in a Sample of Adolescents from a Suburban Area', *Front.*
        Psychol. 8:1980. doi: 10.3389/fpsyg.2017.01980

National University of Samoa 2017, '*NUS Strategic Plan (FY2017/18 – 2020/21) Governance,*
        Policy and Planning', NUS, Apia Samoa

OECD 2011, 'Defining and Characterising Student Resilience in PISA' *Against the Odds:*
        Disadvantaged Students Who Succeed in School, Publishing, Paris. DOI:
        https://doi.org/10.1787/9789264090873-4-en

Tamasese, K, Peteru, C, Waldergrave, C, & Bush, A 2005, 'O le taeao afua, the new morning: A
        qualitative investigation into Samoan perspectives on mental health and culturally appropriate
        services', *Australian and New Zealand Journal of Psychiatry*, vol. 39, no. 4, pp. 300 – 309

Vaioleti T, M 2006, 'Talanoa Research Methodology: A developing position on Pacific Research' *Waikato*
        Journal of Education. Vol. 12, pp. 21 – 24

SHORTER COMMUNICATIONS

Gagana Taumualua – Dual Medium Language methodology: Keynote Speech presented at a Conference on Bilingual Education, July 7, 2014, Pago Pago, American Samoa

Galumalemana Alfred Tuiletufuga Hunkin, National University of Samoa

I wish to acknowledge but at the same time refrain from reciting in detail the dignified honorifics of the dignitaries present today, as I believe these have already been orated earlier by the previous speakers. Suffice it to say that I pay honour and tribute to these as is traditionally expected. And so I say *Tulou, tulou, tulouna lava* to the chiefs and orators, as well as the social and cultural hierarchies of Tutuila and Manu'a, similarly, I pay tribute to the Lieutenant Governor of American Sāmoa and the office holders of the Senate, members of different denominations, all the dignified guests present, and particularly the Director of Education and the Department of Education.

'Ou te manatu 'ole'ā lē toe paopaoina fa'atupemuli o taulafoga pa'ia ma sā ma faigatā o le asō 'auā o lea 'ua māe'a ona paepaeulufanua i saunoaga 'ua māe'a ona folasia i malae. 'Ole'ā ta'oto fo'i fa'amaene o tai loloto, 'ou te lē toe auauina, 'ae tau lava ina 'ou pa'i ma fa'atulou i pa'ia ia 'ina ne'i alu loa se fa'amatalaga, ona faitauina ai lea o le tautalaga. Tulou tulou tulou lava pa'ia o Tutuila ma Manu'a 'ua potopoto i le asō, 'aemaise fo'i pa'ia fa'alemālō, i le afio o lau afioga a le Sui Kovana, 'ae fa'apea fo'i sui mamalu o le Senate, 'o pa'ia fa'aleAtua, 'ae tainane lau afioga a le Fa'atonu Sili o Ā'oga, ma le 'Ōfisa o Ā'oga.

I acknowledge that we have also offered our gratitude to the Almighty for the generosity of his love and his gift of life that has enabled us to meet in good health and spirits today. Secondly, I thank the Director of Education and the Dual Medium Language committee for giving me the opportunity to explain the new dual medium language approach for teaching the children of Tutuila and Manu'a, and to introduce the team from New Zealand, consisting of two senior lecturers and experts on bilingual education from Auckland University, as well as a senior editor of children's reading resources from the Lift Education branch of the South Pacific Publishing company of Wellington, New Zealand.

'Ou te talitonu fo'i 'ua māe'a ona momoli le vi'iga i le Atua 'ona 'o lona alofa ma lona agalelei 'ua tatou feiloa'i ai i le lagi e mamā ma le soifua manuia. 'O lona lua, e 'ave la'u fa'afetai 'i le afioga i le Fa'atonu Sili ma le Komiti o le Gagana Taumualua 'ona 'o le avanoa 'ua tu'uina mai 'ou te faia ai se 'upu e autala ai, ma taumafai e fa'amanino le agaga o le fa'amoemoe o lenei vaiaso tāua. 'O se avanoa tāua fo'i e fa'ailoa atu ai le 'aumalaga o faiā'oga sinia po'o sikola o le iunivesitē o 'Aukilani 'aemaise le ali'i fa'atonu sīnia o alagā'oa tau a'oa'oga mai le kamupanī lomitusi a le Pasefika i Saute o Ueligitone.

There are three appropriate proverbs or sayings in Samoan which I have chosen to highlight the points I want to make…. and I believe they can stimulate as well as focus our thinking… and they are..: (i) a tree does not bend on its own free will… secondly, each new breadfruit crop requires its own harvesting pole… and thirdly, our heritage has great bearing on our identity. A focusing question as well should help to direct our minds to the reasons for change, and that is, Why change the methodology of teaching in one language to that of using two languages; from English… to English and Samoan?

E tolu ni alagā'upu po'o ni fa'a'upuga fa'atōmānatu 'ua 'ou fa'aaogāina e fa'atomua ai le mau o la'u tautalaga, ma e fa'apea: muamua (i) e lē falala fua se lā'au; (ii) lona lua, 'o le fuata ma lona lou;…. ma lona tolu, (iii) 'o le tagata ma lona tupu'aga, 'o le tagata fo'i ma lona fa'asinomaga. 'O le fesili e ao fo'i ona fai, e ta'iala ai se manatu, e fa'apea: 'Aiseā 'ua sui ai le metotia e a'oa'o ai le fānau mai le gagana 'Igilisi, i le metotia fou, 'ole'ā fa'aaogā ai i le gagana Sāmoa ma le gagana 'Igilisi?

Viewpoint: A tree does not bend of its own free will. The Department of Education especially the Director is concerned that an urgent solution be found for the very high failure rate of students who sit a key basic test to determine their educational futures each year. A system clearly needs fixing when a huge percentage, in this case, 70 percent fail the test. That means out of every hundred students who sit, only 30 will pass this test while 70 do not. This is a huge failure rate and a major disappointment for the families and students concerned.

'O le mau: E ala ona falala le lā'au ona 'ua agi se matagi. 'Ua iai le naunauta'iga o le 'Ōfisa o Ā'oga 'aemaise le Fa'atonu Sili, e sa'ili se fofō 'ona 'o le maualuga tele o le fuainumera o tamaiti e lē pāpasi i tausaga ta'itasi i su'ega e ta'ua o 'fua fa'ata'atitia' (standard tests) a le 'Ōfisa o Ā'oga. E na'o le 30 e pāpasi i le ulua'i su'ega ('basic') 'ae 70 e lē au; mai se to'aselau o tamaiti e su'e i tausaga ta'itasi. 'O se numera maualuga tele lenei 'ua lē papasi, ma 'o se fa'anoanoaga tele fo'i i mātua ma 'āiga o nei tamaiti.

No doubt the government and country would also be very concerned about these disastrous results, and it would also be very unfair and also unjust for a whole lot of people to fail such a basic educational hurdle early in their life journeys. Clearly it must be changed. This is the principal reason why the Director has moved to remedy this situation, by introducing a method, as well as a new pathway which will provide a solution. It must be remembered that the method that has been used for about forty years has used only one language- English for the education of Tutuila and Manu'a's children. It is time to replace this unworkable approach and put in place one that works, and one that creates hope. It's time that the educational journeys of the young of Tutuila and Manu'a is imbued with that hope, and rewarded well with success.

'Ou te talitonu 'olo'o popole fo'i le mālō 'aemaise le atunu'u 'ona 'o le lē lelei ma le lē manuia (unfair; unjust) o lea itū'āiga a'oa'oga, mo alo ma fānau a Tutuila ma Manu'a. 'Ua tatau ona sui. 'O le māfua'aga lea 'ua a'e ai le tōfā ma le utaga i le Fa'atonu Sili e sui se metotia, sui se ālāfua se'i sa'ili ai se fofō o le fa'afītāuli. 'Ia manatua, 'o le metotia 'olo'o fa'aaogā nei, e tusa ma le 40 tausaga o fa'aaogā pea, 'ae 'o le gagana 'olo'o fa'aaogā, e na'o le gagana 'Igilisi. Ua siliga tali i seu le fa'alagolago pea i lenei metotia, 'ua lē maua ai se fa'amoemoega. 'Ua fia maua se mapusaga ma se fa'amanuiga a le faigamalaga fa'alea'oa'oga, a alo ma fānau a Tutuila ma Manu'a.

Each new breadfruit crop needs its own harvesting pole. The proverb suggests that a problem needs its particular solution. In the view of the Director, based on research and international experience, there is a workable and proven solution for this major challenge. That solution requires the use of two languages to teach our children. The method is a proven approach, and works and has been researched widely internationally, and found appropriate for countries or populations // whose children are taught in a language different from their first language. The method is a bilingual approach, called the dual medium language approach where Samoan and English work side by side in teaching the children of Tutuila and Manu'a in the classroom.

'O le fuata ma lona lou: E talitonu le mau, e tofu lava le fa'afītāuli ma lona fofō fa'apitoa. 'O le talitonuga o le Fa'atonu Sili, e fa'avae i sa'ili'iliga mai potu ā'oga 'ese'ese o le lalolagi, 'ua iai se fofō 'ua fa'amaonia lona aogā mo lenei fa'afītāuli. 'O le māfua'aga lea 'ole'ā fa'aaogā ai gagana e lua e a'oa'o ai le fānau. 'O lenei ālāfua po'o le metotia, 'ua fa'amaonia lona aogā mo atunu'u e 'ese a latou gagana muamua, ma le gagana lea a a'oa'o ai a latou fānau, e pei o Tutuila ma Manu'a. 'O le metotia e ta'ua o le bilingual po'o le dual medium language approach, lea 'ua filifilia e fa'aaogā e Tutuila ma Manu'a, e gālulue va'ava'alua ai le gagana Sāmoa ma le gagana 'Igilisi i ona potu ā'oga.

It is a method that has been named Gagana Taumualua, as it is a title that captures the essence but also the spirit and the purpose of the policy. The name itself was fashioned and shaped from an ancient, significant sailing vessel called the 'alia, which had great importance to the islands of Manu'a. It has been renamed *taumualua* to reflect the shape and nature of the vessel – which was that it had two hulls joined firmly together to provide strength and security for the ancient paramount chiefs such as the Tui Manu'a and Malietoa who used them to traverse the wide Pasefika/ Pacific Ocean, the largest ocean on our globe. The title name also anchors the program firmly to these shores as it has been shaped specifically as a method to be used here. The method itself has been widely researched by bilingual and dual medium language experts internationally.

'Ua fa'aigoaina nei 'o le Gagana Taumualua, 'ona 'o se igoa e fetaui / toe talafeagai mo le fa'amoemoe. 'O se igoa e āfua mai i tala'aga fa'aanamua o 'ele'ele nei o Tutuila ma Manu'a. Sā iai i aso anamua se va'a tele o le Tui Manu'a na ta'ua o le 'alia, 'ae 'ua fa'aigoaina mo lenei fa'amoemoe 'o le taumualua, 'ona e lua va'a sā sai mau fa'atasi, sā fōlau ai le Tui Manu'a, ma isi tupu o Sāmoa e pei o le Malietoa i le vasa Pasefika,// 'o le vasa pito sili ona telē o le lalolagi. 'O le māfua'aga lea 'ua fa'aigoa ai le metotia 'o le Gagana Taumualua. 'Ua filifilia e taula ai le polokalame, i 'ele'ele tonu nei 'ua tamua ma fa'aaogā ai lenei metotia. 'O lenei metotia 'ua fa'amaonia i su'esu'ega a liguisi 'aemaise i latou e fa'amatua i a'oa'oga i gagana e lua.

Evidence to support the choice of using two languages (*Fa'amaoniga o lona aogā*)

I le mau a Cummins (2007), 'o se tasi o toe 'ulutaia o matā'upu tau gagana taumualua o le lalolagi, 'ua ia fa'apea mai ai: 'o 'auala e a'oa'o ai se tamaitiiti i lana gagana muamua 'ina 'ia iloa ai fa'alogo, tautala, tusitusi ma faitau tusi, 'ole'ā aogā tele fo'i e a'oa'o ai lana gagana lona lua. 'O le mau fo'i lea a Colin Baker, (2011), ma isi toe'ulutaia e pei o Ofelia Garcia o a'oa'oga i gagana e lua." 'O lona uiga, 'a mausalī le fa'avae o se tamaitiiti i lana gagana muamua, 'o se papa mālosi lea e fau a'i ma atia'e ai lana gagana lona lua. 'A lelei ma 'ato'atoa lana fa'alogo, tautala, tusitusi ma le faitau i lana gagana Sāmoa, 'ole'ā mautū le fa'avae e fafau ai lana gagana 'Igilisi. I se taimi mulimuliane ole'a outou fa'afofoga ai i alii ma tama'ita'I tomai i gagana taumualua mai Niu Sila. 'Ole'a latou saunoa ma molimau i le tāua o lenei metotia, ma fa'apupula atili ai le tōfā manino ma le loloto o le filosofia o a'oa'oga e fa'avae i gagana e lua.

Researchers like Jim Cummins (2007), one of the greatest proponents of the bilingual approach in classrooms argues clearly that: the skills and approaches used by a child in using and learning about his first language to listen, speak, write and read will be very useful and can be transferred to the learning and the use of his / her second language. Other experts such as Colin Baker (2011), Ofelia Garcia (2009) and many others all support this central belief and approach. When the child has begun to build his or her skills in listening, speaking, writing and reading in Samoan, a solid platform is being built for the second language, English to be used. Later today and in the week we will hear my colleagues from New Zealand who are experts in bilingual education talk about the importance of this approach but also the deep philosophical foundations of the approach which centres squarely on the use of two languages.

At the outset of the programme, the Samoan language will be used at the ratio of 95 percent Samoan and five percent English at the K5- Level One. It is a method recommended by research and classroom experience to cater for the young Samoan child whose listening skills will be shaped and whose learning will also be maximised by the fact that he or she understands all that is taking place / as it is his or her first language being used. It will also expand the child's mind and this will begin the

process of unravelling the surroundings of his or her the environment and assist his or her learning of the important relationships of family, friends as well as the school.

The ancient Greek philosopher, who is also the father of Western philosophy, Socrates, is well known for the depth of his philosophical belief when he said, Know thyself – and I would add, firstly and foremost.

'O le 'amataga o le polokalame, e fa'aaogā le gagana Sāmoa e 'amata ai le a'oa'oga o tamaiti i vasega 'amata (K5 – Vasega 1) i le 95 pasene i le gagana Sāmoa. 'Ua māfua lea mea, 'ona 'o le talitonuga e fa'avae i sa'ili'iliga, 'ua fa'apea mai, e matuā manino lelei ai le māfaufau o le tamitiiti i so'o se mea e a'oa'o 'auā 'ole'ā mālamalama lelei ai. E lē gata i lea, 'ae 'ole'ā matala ai lona māfaufau ma ia iloa fetu'una'i mea e na te va'aia, mea e na te fa'alogo i ai i lona si'osi'omaga, ma a'oa'o lelei ai fo'i ma lana tautala 'auā, e mālamalama ai mai lona 'āiga, ana uō, 'aemaise lana ā'oga. 'O le sini 'autū lea o so'o se potu ā'oga. 'Ina 'ia a'oa'o le tamaitiiti e tusa ma ona ala, e tusa ma lona si'osi'omaga, e tusa ma lona lalolagi 'olo'o ola ane ai..

'O le mau fa'afilosofia po'o le talitonuga a le tamā o le tōfā manino a atunu'u o Europa, le poto mai Eleni o Sokarate, (Socrates) o anamua, faimai; 'Sa'ili muamua 'ina 'ia 'e mālamalama i lou tagata ma lou lotoifale.

Additional views (Nisi mau fa'aopoopo)

Supportive views can be found from University research based on secondary school experiences in Sāmoa and New Zealand where Samoan students are learning. In these classes, findings have shown that Samoan students who are studying science, chemistry and mathematics have clearly found it advantageous to use Samoan via their teachers being speakers of Samoan as well as English- to understand the complex concepts that are part of these subjects. The studies by Hang and Carter (1996), and Latu (2006) of Auckland, showed an increase in the marks as well as the comprehension of these students after the Samoan teachers engaged the Samoan language in explaining difficult vocabulary used in English.

'O isi mau fa'aopoopo, e maua mai i sa'ili'iliga a Iunivesitē sā faia i totonu o ā'oga maualuluga i Sāmoa ma Niu Sila, i vasega e ā'o'oga ai tama ma teine Sāmoa. 'Ua fa'amaonia fo'i i nei sa'ili'iliga le tāua tele o le gagana Sāmoa i le fa'amaninoga o vāega 'ese'ese o matā'upu e pei o le saienisi, kemisi (chemistry) fa'apēnā fo'i ma le matematika po'o le numera. 'Ua molimauina i nei sa'ili'iliga le lelei ma le maualuga o togi po'o maka o tama ma teine e lelei a latou gagana Sāmoa, ma 'ua fesoasoani tele e mālamalama ai i vāega o lesona e lē manino ai i latou i le 'Igilisi. E fa'amaonia e faiā'oga nei sa'ili'iliga na faia e le Iunivesitē o Waikato, (Hang & Carter, 1996) ma le Iunivesitē o 'Aukilani (Latu 2006)

Some criticism of the bilingual method (or in this case, of using Samoan) Faitioga māsani

I believe I have made my argument clear, but I know that there are some criticisms by those who either have no knowledge of the method or approach, or simply say that Samoan has no useful place in the classroom of their children.

'Ou te manatu 'ua manino le mau, 'ae 'ou te lagona e tatau fo'i ona tali nisi fesili 'olo'o tula'i mai pea 'ona 'o le fa'aaogāina o la tatou gagana i le potu ā'oga. E iai lava nisi e lē talitonu e iai le aogā, ma lana galuega tāua e faia i totonu o potu ā'oga a Tutuila ma Manu'a ma Sāmoa fo'i.

I ask two questions and answer them to illustrate the point. *(Ua 'ou 'aumaia nisi o nei fesili e tali atu ai le mau.)*

Question one (Fesili muamua)

Are there enough words in Samoan to teach the different subjects in the curriculum? Response: Like other languages of the world, if there are no words to cater for new knowledge or new concepts, usually brought in from other cultures or new disciplines, all languages will have ways of dealing with this need. For example, here are Samoan words borrowed from English, Greek and other languages: democracy, senate, parliament, watch, dollar, internet, minute, and thousands of other borrowed words which now have become Samoan words. English itself has borrowed so many words over the years that 60 percent or more of English words are borrowed words from other languages. Linguists and other related academics collect, study and expand and explain the meanings and often the origin of these words, and write dictionaries to list and explain them.

E lava ni 'upu o le gagana Sāmoa e a'oa'o ai matā'upu 'ese'ese o le ta'iala?   Tali: E pei o isi gagana o le lalolagi, 'a leai se 'upu e fa'amatala ai se mea fou, ona sa'ili lea o se 'upu e fa'aaogā. Fa'ata'ita'iga: '' O 'upu nei na nonō mai i le gagana 'Igilisi, 'Eleni ma isi gagana Europa e fa'amatala a'i mea sā le masani ona iai i aso lā: Temokarasi, senate, palemene, uati, matematika, tālā, 'intaneti, mīnute, ma le afe ma afe o 'upu fou 'ua fa'aulufale mai i le gagana Sāmoa. E fa'apēnā le gagana 'Igilisi. E tusa ma le 60 pasene o 'upu o le gagana 'Igilisi e nonō mai isi gagana o le lalolagi. 'O le galuega lea a liguisi ma tagata galulue i gagana e tapenapena ma fa'amaopoopo tusitusiga o nei 'upu fou ma tapena lelei ma fa'aaogā i tusi lolomi fefiloi 'auā a'oa'oga.

Question two (Fesili lona lua)

Can we get jobs by learning Samoan? Answer: Yes. This is what happens when a language becomes valued and used normally in all activities of the life of a community. There are a large number of people in this gathering whom I believe are employed in a number of key positions in connection with or directly involved with the use of the Samoan language in the classroom at all levels of the educational ladder. If we all combine our beliefs and our faith in the power inherent in our language granted to us by God as many of us believe, then we should use it and look after it – and value it – otherwise we will lose it.

E maua ai ni galuega i le gagana Sāmoa? Tali: 'Ioe. 'O le tasi lea o mea e mautinoa e tupu mai pe'ā fa'aaogā le gagana Sāmoa e atia'e ai polokalame i totonu o a'oa'oga. 'O le olaola ma le tapenapena ma fa'atāua o la tatou gagana Sāmoa, 'o le mautinoa fo'i lenā o le tuputupu pea o galuega a tagata e popoto e fa'aaogā le gagana i so'o se vāega o le soifuaga. 'O se fa'ata'ita'iga, 'olo'o iai tagata i lenei potopotoga e galulue i vāega tau a'oa'oga e fa'aaogā ai le gagana Sāmoa. 'O le mea moni lava lena e tupu mai pe'ā tatou loto naunau ma loto gatasi e una'i la tatou gagana ona fai mai le talitonuga, 'o le meaalofa a le Atua. Tatou fa'apelepele lā 'i ai ma fa'aolaola 'i ai i lona fa'aaogā i aso 'uma ma taimi 'uma ma vāega 'eseese o lo tatou olaga.

References

Baker C 2011, *Foundations of Bilingual Education and Bilingualism*, 5th edn, Multilingual Matters, Clevedon.

Cummins J 2007, 'Rethinking Monolingual Instructions Strategies in Multilingual Classrooms', *Canadian Journal of Applied Linguistics,* vol. 10, pp. 221-240.

Garcia, O 2009, *Bilingual Education in the 21st century*, Wiley-Blackwell, Oxford.

Hang, L & Carter, M 1996, *We need to use Both languages*, Waikato University.

Latu, V 2006, *Language Factors that Affect Mathematics Teaching*, Education: Auckland University.

The Need for Change in Curriculum to Enhance Progress in English Learning In Samoa

Diana Betham-Scanlan, National University of Samoa

Abstract

This article proposes that the Samoan system of education needs new approaches and measures to enable further progress in English language learning. It argues that competency in English is essential for our people who seek employment or higher education. To achieve this more emphasis on English is need in primary education levels including the early years, but there is an issue with the extent of English comprehension and fluency among teachers. At the National University of Samoa, where English is mostly the language of instruction and where most learning resources are in English, it has been suggested the ability to confidently read, write and speak in English and comprehend spoken English at a standard expected at tertiary level is weak among some if not many students and graduates. The paper analyses some underlying reasons why this is so. The paper is based on information from online sources, journals, newspapers as well as education report and scholarly publications.
Keywords: Change, Curriculum-Development, Progress

Introduction

Does Samoa need a stronger English language curriculum? This article argues that it does, and that there is a need for a review of the school curricula towards placing more emphasis on English language instruction, to achieve better student outcomes. The majority of our students speak Samoan at home and have no other exposure to English except at school; therefore more time should be given to English instruction within the classroom. Further innovative methods utilizing Information technology is needed to help teachers as well as students.

It might be argued that English is not Samoa's indigenous language and is only of secondary importance, but this argument can be countered by the fact that although Samoa is only a dot on the map, it is substantially affected by globalization. More Samoans live overseas in English-speaking countries than in Samoa and Samoa benefits economically from their remittances. It is likely that migrants with a command of English are better equipped to succeed economically overseas, as well as finding the challenge of living in a new country easier to deal with. Even among those who have not completed secondary education, basic knowledge of English is an advantage in securing a contract to do seasonal work in New Zealand and Australia, an opportunity that is highly sought after. Furthermore, most of our most highly educated people have studied for higher degrees in English language countries overseas which is a pathway to the best paid jobs, or success in business. English is one of the major languages of the world, and fluency in it leads to better communication and knowledge acquisition skills and eventually to better employment opportunities. As the current education policy states, Samoa's education system "… develops in students the skills and attitudes needed to succeed in an ever-changing world" (Ministry of Education, Sports and Culture 2006, p. 3).

The current Samoan Primary Education Curriculum, presently being revised, was published 15 years ago (in 2006) and since then, there have been many changes in our country and the global influences on

it, particularly in the area of information and communications technology. Our education systems must adapt to these changes. The Ministry of Education, Sports and Culture, affirms the importance of quality, stating that quality is "exemplified by high standards of academic achievement." The policy also states that "teachers make a difference" and that: "… the Samoan Curriculum recognizes the centrality of highly effective teaching in ensuring quality outcomes for students" (2006, p. 4). It is questionable as to whether these high standards of academic achievement are being met and whether teachers have the high standards needed as stated in the curriculum policy.

An associated issue is the principal of 'equity' which "… requires that the system will treat all individuals fairly and justly in provision of educational opportunity" (Ministry of Education, Sports and Culture 2006, p. 3).   Equity considerations raise the question of whether Samoa's education system adequately caters for students who lack fluency in Samoan. There is a significant minority of students who do not speak the Samoan language at home but only a few private schools offer instruction in the English language medium, and places in them are scarce.

Studies highlighting issues in education

The PaBER (Pacific Benchmarking for Education Results) Report for the Pacific in 2017, found problems in Samoa's educational system as well as with teachers. The report was summarized by the Samoa Observer newspaper (Feagaimaalii 2017) and revealed the following findings:

> ''… *most teachers are not able to fully utilize literacy and numeracy resources claiming the language used in the curriculum is too difficult."*

> "*… teachers have limited capacity and skills to effectively teach literacy and numeracy."*

> "*… while teachers receive in-service training, most of the training does not specifically address the targeted areas required for literacy and numeracy and there is little or no evidence that these trainings are planned in advance."*

> "*… all teachers of Samoa must receive professional development and that improvement of teaching-learning outcomes in the classroom will be at the core of education, training and staff development programmes".*

With the evidence provided in the report showing real problems in our educational system as well as the capacity of our teachers, it is imperative that solutions be found to enable progress.

The national goal of equal Competence in English and Samoa

Samoa's Ministry of Education, Sports and Culture Framework states that the goal for students to: "be equally competent in Samoan and English. This requires that both languages are used as means of instruction as well as the learning of the different features of both languages. Students who are truly bilingual have the advantage of operation both socially and conceptually in either language" (Ministry of Education, Sports and Culture, 2006, p.8).

To achieve this goal, students require an equal and consistent use of both languages in the curriculum and classroom. According to one study of English teaching:

> *"… for Samoan students there was difficulty in speaking English but also some of the teachers lacked confidence in the proficiency of their spoken English skills"* (Ljungdahl, 2007, p. 1)

If teachers lack the confidence in speaking Samoa's second language, it is likely that they will avoid using the English language that they are uncomfortable with. Another article on the results of the Samoa Primary Education Certification Assessment in the Samoa Observer newspaper backs Ljungdahl's observation, reporting that:

> *… teachers have in fact indicated that they prefer to work with the Samoan version of materials and also indicated that language and terminology in the English curriculum resources is too challenging to teach… As a result it is highly likely that while a bilingual policy is in place, the majority of teaching and learning goes on in Samoan (*Feagaimaalii-Luamanu 2017*).*

Hours of Instruction

The lack of exposure to the English language is also illustrated in the Curriculum Policy guidance on the weekly hours of classroom instruction. For Year 1 in the current policy on primary education the curriculum allocates the following period of time to subjects.

Table 1: Year One: Ministry of Education, Sports and Culture 2006

Samoan	Poems, Speech Training, Printing	7.5 hours
English	Initially Oral English	1 hour
Social Science	Incorporating Story and Drama	3 hours
Mathematics		5 hours
Science		2.5 hours
Health and Physical Education		3 hours
Visual and Performing Arts	Including Art and Music	3 hours
Assemblies/Recess		2.5 hours

(MESC, 2006, Figure 1 p. 14)

With regards to this allocation of time and the issues outlined above, the question arises as to why English, which is not used in most Samoan families, is only given one hour of study per week? This works out to an equivalent of 12 minutes of English exposure a day, which is clearly insufficient and may only consist of a short song or nursery rhyme such as 'Humpty Dumpty' or maybe English greeting. As Ljungdahl pointed out, as previously cited, it is likely that teachers will prefer such an undemanding mode of instruction, especially if many of them are not confident in the English language.

If our children are to succeed in their future educational pathway, they need to learn English at the age where learning is at its highest and when their brains are expanding and developing. As Ruyun Hu (2016), states:

… according to the Critical Period Hypotheses, age is proved to be the myth that young learners stand the advantage stage in second language learning. They will learn [a] foreign language better than older learners in the ultimate attainment, though [the] older learner is regarded as fast and efficient language learner. Immersing young learners into foreign language learning earlier will help them hold the favourable attitude of language learning in the long run. Therefore, we should teach learners' foreign language as early as possible, especially at their early age. When they first enter to the school, the foreign language courses should be introduced for them in class. It would help them form the foreign language belief like their mother tongue (Hu 2016)

Another report also emphasizes this point: "The human brain develops more rapidly between birth and age 5, than during any subsequent period" (Wisconsin Council 2007). This then is a suitable time to begin to expose the child to a second language as a child is born prepared to learn.

Although there is an improvement in the Curriculum Policy for Year 2, as shown below, I also query the adequate and satisfactory learning hours given to the second language. It allocates the following period of time to subjects:

Table 2: Year Two: Ministry of Education, Sports and Culture 2006

Samoan	Poems, Speech Training Printing	7 hours
English	Initially Oral English	1.5 hours
Social Science	Incorporating Story and Drama	3 hours
Mathematics		5 hours
Science		2.5 hours
Health and Physical Education		3 hours
Visual and Performing Arts	Including Art and Music	3 hours
Assemblies/Recess		2.5 hours

(MESC, 2006, Figure 2, p.14)

With 1.5 hours per week, this breaks down to a total of 18 minutes a day or an increase of 6 minutes per day from the previous year. Again, as most of the students do not speak English at home or have English resources such books in their homes, this is evidently insufficient. An article on English resources by Kruse Va'ai (2016) points out that even though some schools had libraries or collections of books for students to read,

"… many teachers were not conscientious readers and did not engage with reading resources, therefore they did not impart a love of reading nor did they create appealing activities to motivate students to learn and excel in reading" (Kruse Va'ai 2016).

Under the current primary curriculum, from Years 4 to Year 8, students receive an equal allocation of 5 hours of Samoan as well as English instruction. In secondary schools from Year 9 to Year 11 students are supposed to receive 3 hours of Samoan and 4 hours of English. The Curriculum Policy states that in the senior secondary Years 12 and 13, "Students must undertake the study of English then choose four

subjects from given options History, Biology, Chemistry, Geography …" (Ministry of Education, Sports and Culture Framework 2006). However, students at these senior levels are largely still taught in Samoan as many secondary school teachers, like their primary school counterparts, are more comfortable with the Samoan language that is, for most of them, their mother tongue. Yet social science subjects such as history and geography require English because the texts and teaching resource material are in English. In other words, our teachers need the 'know how' in order to accomplish this. Elaine Lameta (2006) argues that when Samoan teachers speak or teach in either language, they need to be highly competent in that language so as to act as models for the students" (Lameta 2006). It follows that more support is needed by teachers to improve their own English competencies.

Effects of low English exposure on the quality of tertiary education

The lack of English exposure for our students leads to problems which need to be addressed and solved. By the time students reach National University of Samoa Foundation level, reading and writing levels are very low and do not reach the required standards. Va'ai and Heem (2014) refer to low English proficiency in Samoa in their discussion of a 2010 report by Kral on bilingual policy for the Ministry of Education, Sports and Culture (MESC) which found that:

> *"… the majority of students performed below the achievement levels targeted by MESC and entering the job market, or university or vocational training, find themselves unable to communicate in English or use the language as a tool for advancement and thus concluded at every level of transition from primary school to high school, or from high school to work place … remedial training in English is necessary for most of the youth" (*Va'ai & Heem 2014, p. 3)

Many students depend on teachers to explain information in Samoan in courses that are written in English and require student to read English texts; few are independent learners able to read and comprehend texts in English, and wait for teachers to clarify information in Samoan. Accordingly, students at university levels tend to prefer bilingual teachers who will offer them a Samoan translation of the information they need to assimilate in order to pass their courses.

Conclusion

English instruction for students in our country of Samoa should begin more intensively at Primary levels or even in preschools, when students have the highest ability to learn. At present pre-school education in Samoa is not offered widely, and often comprises play group activities using Samoan language, rather than offering English language exposure. When children commence primary school at age five the current allocation of time for teaching English is not sufficient to take advantage of the fact that childhood years are a particularly sensitive period for the cognitive and behavioural development of a young child.

Our current curriculum policy discusses several issues such as equity, effective teaching, and equal competence in both Samoan and English. How can this possibly be achieved when such little study time is allocated in the curriculum for the English language as given in the policy? Adjustments need to be made and more time should be given to English instruction within the classroom at the early primary level

and thereafter. Most of our children receive a sufficient amount of exposure to their native tongue within their home, community and Sunday schools and at Primary school they are enabled to build on their existing knowledge so that the child becomes literate in Samoan by adding vocabulary, grammar and reading and writing skills. However In the early primary school years, children need a foundation in English before they can build greater comprehension and literacy, and therefore much more time and teaching resources than is currently offered to them. A balance of exposure is necessary in both languages.

Teacher quality is also important and teachers need to be provided with in-service training to improve their ability to teach English. The curriculum now under revision needs to address this problem and increase the teaching hours for English instruction within the classroom, beginning at primary levels. English competency opens doors to opportunities, so it is essential that our educational system recognizes the need to improve teaching and resourcing of English in our schools.

REFERENCES

Feagaimaalii-Luamanu, J 2017, 'Report outlines progress in English and numeracy', *Samoa Observer,* viewed 29 October 2018 http://www.samoaobserver.ws/category/samoa/951.

Feagaimaalii-Luamanu, J 2017, 'Report slams education system', *Samoa Observer,* viewed 26 April 2017 http://www.samoaobserver.ws/category/samoa/16066.

Feagaimaalii-Luamanu, J 2017, 'Bilingual policy not practiced', *Samoa Observer,* viewed 28 April 2017 http://www.samoaobserver.ws/category/samoa/18638.

Feagaimaalii-Luamanu, J 2017, 'Teacher competence called into question', *Samoa Observer,* viewed 01 May 2017 http://www.samoaobserver.ws/category/samoa/22135.

Hu, R 2016, 'The age factor in second language learning', *Theory and Practice in Language Studies,* Vol. 6, no. 11, pp. 2164-2165.

Kruse – Va'ai, E 2016, 'Learning for development from within and beyond the reef: Early Implementations of open distance learning and use of open educational resources (OER) For the teaching of English in a small island state', *Journal of Learning for Development –JL4D,* vol. 3, no. 3, pp. 22-27.

Lameta, E 2006, 'Language Policy' *The Case of Samoa Journal of Educational Studies,* vol. 27, no. 1

Ljungdahl, L 2007, 'Teaching English in Samoa: Coming of Age', *The International Journal of Learning,* Vol. 14, no. 1.

Ministry of Education Sports and Culture 2006, *National Curriculum Policy Framework,* Apia Samoa

Va'ai, S & Heem, AV 2014, 'Focus on Reading: Initiatives with the PELT and SRA laboratories in the proficiency in the EFL Department at NUS', *SPAN67 Journal*, pp. 23-44.

Wisconsin Council on Children and Families 2007, 'Quality Matters: A Policy Brief Series on Early Care and Education', *Brain Development and Early Learning*, vol. 1, no. 1, pp. 1-4. Available from: http://www.earlyconnections.mo.gov./early-childhood-brain-development. [Accessed 20th January 2022].

CONTRIBUTORS

Agnes Wong Soon is a Lecturer for the department of Computing in the Faculty of Science, National University of Samoa

Anma Adil is a MBBS Year 1 Student at the School of Medicine, National University of Samoa

Diana Betham-Scanlan is a Lecturer for the English & Foreign Language Department at the Faculty of Art, National University of Samoa

Dr. Edna Temese is a Senior Lecturer for the department of Computing in the Faculty of Science, National University of Samoa

Dr. Masami Tsujita Levi is a Senior Lecturer in Development Studies at the Centre of Samoan Studies, National University of Samoa

Elisapeta Mauai is a Senior Lecturer for the department of Computing in the Faculty of Science, National University of Samoa

Elsa Elia is a MBBS Year 1 Student at the School of Medicine, National University of Samoa

Fiafaitupe Lafaele is a Lecturer for the department of Computing in the Faculty of Science, National University of Samoa

Foilagi Faamausili is a Lecturer for the department of Computing in the Faculty of Science, National University of Samoa

Galumalemana Alfred Tuiletufuga Hunkin is a Senior Lecturer at the Centre of Samoan Studies, National University of Samoa

Guliano Steward Bryce is a Lecturer for the Department of Construction in the Faculty of Technical Education, National University of Samoa

Muagututi'a Professor Ioana Chan Mow is a Professor of Computing & Computing Education in the Faculty of Science, National University of Samoa

Professor Penelope Schoeffel is an Adjunct Associate Professor for the Centre of Samoan Studies at the National University of Samoa

Rosa Filoi is a Lecturer for the Department of Social Sciences, in the Faculty of Art, National University of Samoa

Samoa Faaiu E Fuimaono is a MBBS Year 1 Student at the School of Medicine, National University of Samoa

Silimana'I Pulou Wright is a Lecturer for the Department of Management, Tourism, and Hospitality in the Faculty of Business and Entrepreneurship, National University of Samoa

Tara Patu is a Lecturer for the Department of Computing in the Faculty of Science, National University of Samoa

Tavila Tavila is a teacher at Avele College, Samoa

Torise Sa'u-Neemia is a Lecturer for the English & Foreign Language Department at the Faculty of Art, National University of Samoa

Tusipepa Malaga is a Lecturer for the department of Computing in the Faculty of Science, National University of Samoa

Viali Lameko leads the Oceania School of Medicine in Samoa and is completing his PhD at the National University of Samoa