

Challenges in the teaching and learning of home economics/ food textiles technology in secondary schools in Samoa

Summary

The research on Home Economics (HE)/Food and Textile Technology (FTT) education in Samoa investigated the decrease in the number of secondary students that enrolled in the subject area. In the last ten years, there were adequate numbers of students enrolling in the area, but this has changed dramatically. It was unclear why there was a drop in student enrolment in HE/FTT and this research was an attempt to find out why there was a decrease in the number of students from colleges enrolling in the subject at the Faculty of Education (FOE) of the National University of Samoa (NUS). Promoting and sustaining this subject in the Samoa education curriculum is the responsibility of the Ministry of Education, and Culture (MESC). School awareness programmes provided by MESC identified their importance these subjects being offered in the school curriculum. The research also examined the information given to students on HE/FTT, how it was relayed to students, and its implications to the social, cultural, economic and educational development of the nation. In addition, the kind of career opportunities and prospects opened to students to pursue the area in Samoa and abroad.

Keywords: Samoa education curriculum, social, cultural, economic and educational development of the nation, imparting skills, knowledge, values, and attitudes to learners

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Introduction

The focus of the study looked at the continuing decrease of enrolment of student teachers in the HE/FTT/ courses at the FOE. The faculty offers HE/FTT courses to train student teachers to teach in the colleges and secondary schools of Samoa. This has led to examining the challenges of teaching and learning of HE/FTT in the colleges, which consequently impacted teaching and student enrolment qualified for admission to FOE. The ongoing decrease in the number of students in this specialised area had prompted the research. It is a concern in the development of the country due to the vital contribution of the HE/FTT to a better, healthier, and sustainable society. Concurred that FTT is advantageous for students "to learn more food and textile skills to contribute to their society".¹ In addition, argued that FTT is necessary for students due to its importance "to both the home and the good of the nation".² As such, Samoa must take into consideration the importance of HE/FTT to sustaining development beneficial for a health society. Moreover.

Literature review

HE/FTT is one of the vocational subjects taught in the Samoa secondary education and it was designed to provide sufficient practical skills to prepare learners for subsequent training to equip them with the necessary skills and knowledge to assist with self-employment and contribute effectively to the socio-economic development of the family and society.

McGregor and Murnane,³ attested that HE/FTT offers multi-disciplinary content and environment understanding for students to apply and practice skills and knowledge from a variety of areas as it is situational related to everyday life. Although it is multi-disciplinary, it teaches evaluative and critical skills and empowers individuals no matter what the context.⁴⁻⁶ In secondary schools in Samoa, levels Year 9-11 and levels Year 12-13, HE/FTT consisted of food and nutrition, fashion and fabric as well as design and home management. Different

colleges design their own way of teaching either as separate subjects or units. This would enable students to explore a vast array of the field of their choice. Chukwujekwu and Iyegbu,⁷ confirmed the essence of separating the components of HE/FTT ensured students specialized in the field they opted for. The teaching of HE/FTT as a practical subject is crucial for imparting skills, knowledge, values, and attitudes to learners.⁸ Teachers should have the professional competencies necessary to communicate knowledge, skills, and attitudes. As such teacher education should play an important role in supplying colleges with qualified graduates. According to Farrant,⁹ the quality of every formal system of education is directly responsible to the quality of teachers who perform their duties in the same system. Teacher Education is vital and important for the MESC,¹⁰ as affirmation for teachers to teach effectively, and the quality of teacher graduates in colleges should predominate. Teacher training is also necessary in today's educational climate and environment to cope with the changing demands of the profession.¹¹ Therefore, constructive pedagogies must be employed for the teaching and learning process to be real, authentic and productive.¹²

In this way teacher quality in any educational system determines to a greater extent the quality of the system itself. Ingersoll,¹³ claimed teachers' qualification, teaching practice, teachers' certification, teacher experience and teacher preparation defines teacher quality. The assertion implies teacher quality will determine the effectiveness of curriculum implementation. Ololobou,¹⁴ maintained that teacher education programmes are intended to impart not only a part of knowledge in student teachers but also to collate theme skills, competencies and attitudes to enable them to adapt effectively to the changing demands of the educational system and society. Essentially students should exhibit the required competencies and skills needed at the completion stage for societal development. If students lacked the requisite competencies and skills needed during training, the goal of teacher education would be defeated and a mere wish of the administration. Observing and witnessing the decrease of enrolment

of student teachers in the HE/FTT courses have dire consequences for health and sustainable development of society. It became a deeply rooted concern as the current situation has ultimately questioned the effectiveness of the quality of teacher training and pedagogy. Seeking answers to the factors that have contributed to the lack of interest which have discouraged HE/FTT students to enroll in these functional and practical subjects has become paramount.

The statistics obtained from NUS student administration and FOE assessment files gave proof to the decrease of student enrolment for FTT courses in the last decade 2008-2018. It questioned what subjects are given priority at colleges and the pedagogy of FTT being taught. When students lose interest or have no experience of the courses offered, it would indicate inadequate teaching and learning at colleges. It is against this backdrop that the study explores the challenges of teaching and learning of HE/FTT at colleges and secondary schools in Samoa.

Research questions

The purpose of this study was to investigate the continuing decrease of enrolment in HE/FTT courses at the FOE. The faculty offers courses in the HE/FTT to train student teachers to teach the subject in and colleges and secondary schools around the country. This has led to examining the challenges of teaching HE/FTT in colleges and secondary schools, and subsequently its impact on student enrolment and qualifying for admission into the FOE programmed. The ongoing decrease in the number of students in this specialized area has prompted the investigation. It is a concern in Samoa's economic development as HE/FTT plays a vital role in developing business entrepreneurship and contributes to a better, healthier and sustainable society. Therefore, Samoa needs to take into consideration the role of HE/FTT in sustaining development beneficial for the economy and a healthy society.

This was a mixed method study involving interviews and survey questionnaires. A mixed methodology has the advantage of targeting a large sample of respondents and the interviews ensured the participants would provide more in-depth responses to the phenomenon investigated.

The research interviews were based on the overarching question with the following sub questions.

Overarching question

What social, cultural, educational, and economic problems affect students' enrolment in Home Economics/Food Textiles Technology in Secondary Schools in Samoa?

Sub questions

Question 1: What are the major problems that affect student participation in HE/ FTT in secondary schools?

Question 2: What are the key measures schools and the MESC have taken to increase student interest in HE/HTT for School Certificate and the Samoa Secondary Leaving Certificate?

Question 3: What factors contribute to a decrease in student enrolment in the HE/ FTT?

Question 4: How do teachers and principals see their role in advancing or reducing student interest in HE/ FTT?

Theoretical framework

This theoretical framework would assist the reader to determine the perspective of the authors and the theoretical tools used to make sense

of the data. The study was influenced by the philosophical perspective that was grounded in substantive theory which was deemed to be transferable and not generalizable.¹⁵ It pointed to elements of the context that were considered transferable to contexts with similar characteristics like those of the current study. The process identified elements of similarities and differences across contexts with studies focusing on similar patterns or themes.

Substantive theory is concerned with understanding the phenomenon based on the emerging data from interviews with the participants and the focus group session with FTT students. It refers to a theory before any themes and patterns, themes and categories were associated to the emergent substantive theory.¹⁶ Developing substantive theory is a blueprint for cumulative knowledge and theory which could give rise to numerous theories in various contexts. Substantive theory is dependent on the cumulative effect of data collected from the participants interviewed, their experiences and perceptions relating to the study. This approach came about as a result of the philosophical underpinning that there existed multiple realities and truth. Substantive theory which is connected to grounded theory, phenomenology and hermeneutics have advocated the position that meaning has to be part of the world including human consciousness. The approach could build bridges in attempts to better understand areas involving cultural differences, ethical matters, contextual dilemmas and others. This is a critical aspect because there are differences between and among people as individuals, groups, cultural affiliations, workplace milieu and educational priorities.

Methodology

To satisfy the purpose of the study, questions targeted how HE/HTT challenges have contributed to enrolment problems and its impact on the cultural, economic and educational factors. This investigation is a mixed-method study using both quantitative and qualitative data. According to Johnson, Onweguzie & Turner,¹⁷ mixed method contribute to a "breadth and depth of understanding and corroboration". The mixed method approach enabled both quantitative and qualitative to provide data for the effective explanation and description required for data analysis to satisfy the aim of the research. Mixed method has the advantage of using quantitative data to focus on logic, numbers, convergent reasoning and the integration of both is "needed to understand the case at hand".¹⁸ Qualitative on the other hand "focuses on meaning in context, requires a data collection instrument that is sensitive to underlying meaning when gathering and collecting data.

Given the nature and the structure of the survey, all analysis including descriptive analysis and charts, were implemented on MS Excel using various methods particularly the use of Excel functions and pivot tables. Gathering and presentation of explanations and descriptions from HE/FTT teachers' responses were classified into responses that showed they were similar. These were then reclassified to enable a manageable analysis of data. In quantitative research, variables can be identified and measured. Thus, a mixed method approach used the survey questionnaire to provide numerical data and interviews from principals and the student focus group solicited rich, in-depth and thick descriptions to supplement quantitative data. Both components played a complementary nature in elucidating the phenomenon. While interviews provided depth and breadth of responses, the quantitative component gathered information from HE/FTT teachers a predetermined instrument to provide statistical data Creswell, which could be generalized across the population.

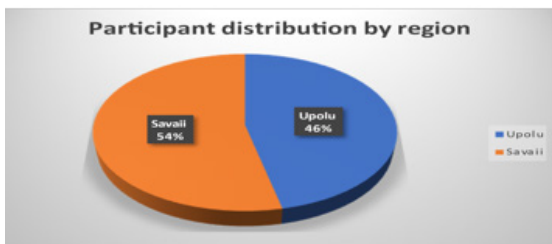
There were several advantages in using the mixed method approach. It provided quantitative data that attempted to interpret the

descriptive information. Qualitative data connected the participants to the phenomenon under study and to make meaning of their experiences. It meant one needs to be cognizant of the nuances, similarities and differences in participants' forthcoming responses, which Stake,¹⁹ referred to as an "inquiry, deliberate study, a seeking to understand". In this aspect, investigating the challenges of HE/FTT teaching and learning could be linked to an understanding of the reduction in numbers that entered the FOE.

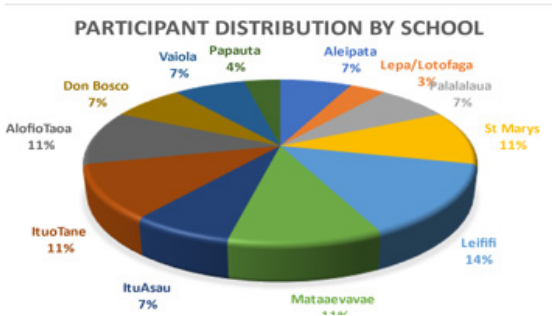
The population selected for this study included eleven (11) college/secondary school teachers, five (5) from Savaii and five (5) from Upolu, three (3) principals, 1 FTT subject specialist from MESC, and eleven (11) FTT students from FOE. The five colleges/secondary schools from Upolu were Leififi, Papauta, Aleipata, Palalaua and St Mary's. The five colleges/secondary schools from Savaii included Mataevave, Alofi Taa, Itu o Asau, Itu o Tane, Vaiola and Don Bosco. A total of 23 questionnaires were disseminated and collected. Three (3) college principals and one (1) MESC personnel were interviewed, Samoa College, St Joseph, Robert Lois Stevenson and the MESC FTT coordinator. In addition, eleven (11) FTT students from FOE were involved in a focus group discussion.²⁰

Demography of participants

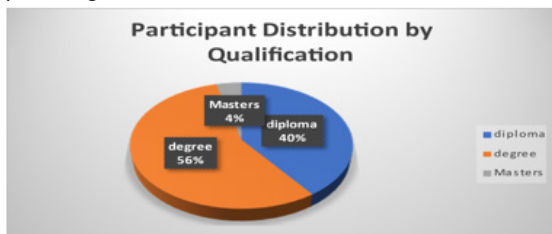
The charts below showed the demographics of the participants involved in the research (Graph 1-5).



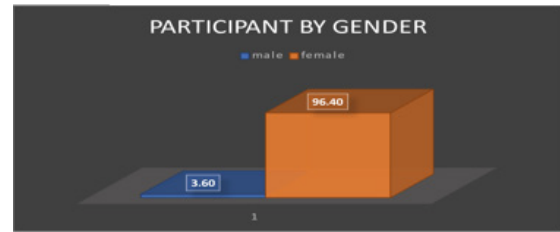
Graph 1 The above indicated that more than half the participants were from Savaii at 54%.



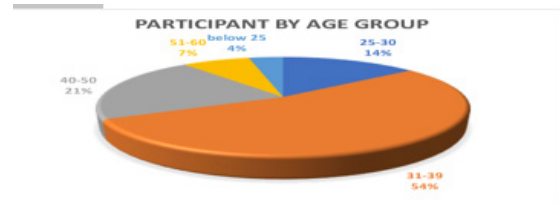
Graph 2 Showed that Leififi had the highest number of participants at 14% and Lepa/Lotofaga had the least 3%.



Graph 3 Provided participant distribution by qualification which indicated that 60% held degrees and 40% had diploma. In essence, this area has sufficiently qualified teachers for FTT.



Graph 4 Showed that 96% of the participants that taught FTT were females and nearly 4% were males indicating that the area was dominated by females.



Graph 5 Participant by age group indicated most were between 31-39 years and only 4% were below 25 years. This illustrated most of the workforce in FTT are in the active, middle range.

Key findings and discussion

The discussion of findings for the quantitative data provided by the teachers in the 11 selected schools would be discussed under the questions the participants responded to. The quantitative data described and clarified participants' responses to the issues they encountered or perceived as challenges in the teaching of FTT.

Data collected from the research involved 6 schools in Savaii and 5 schools in Upolu. Results from the research indicated areas FTT teachers found challenging, and examples of problems encountered in Samoa's education system in the teaching of FTT. Issues of evidence were collected from teachers' survey questionnaires, interviews and MES student's focus group meeting to verify the challenges perceived to affect the teaching and learning of students in FTT.

Quantitative data utilized a survey questionnaire distributed and collected from 28 teachers in both Savaii and Upolu. Qualitative data was gathered from interviews with three principals of colleges/secondary schools and one personnel from MESC,²¹ and one focus group meeting of FTT students from FOE after the survey was completed.

Questions: What are the major problems that affect student participation in HE/FTT in secondary schools?

70% of the respondents strongly disagree or disagree and rejected that this is the case while about 14% strongly agree or agree. This indicated most teachers feel confident about teaching all components of the curriculum (Figures 1).

About 64% of respondents reject the claim while about 14% strongly agree or agree. It showed teachers are convinced that the FTT programmer could be implemented, and cost would not be a problem. The implication of reducing cost could mean more local materials would have to be utilized (Figures 2).

Split decision and no clear consensus with about 46% for strongly disagree or disagree and about 36% for strongly agree and agree. In essence, it is notable that respondents are divided with both below

50%, however, indicating that hands-on experience which is essential for an FTT programmer should be reviewed for more practical and hands-on experience (Figures 3).

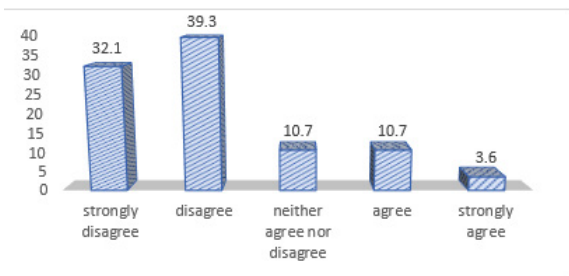


Figure 1 Teachers do not teach components of the curriculum they are not confident in.

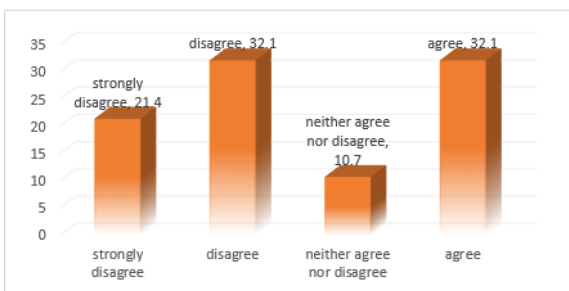


Figure 2 FTT is expensive to implement adequately.

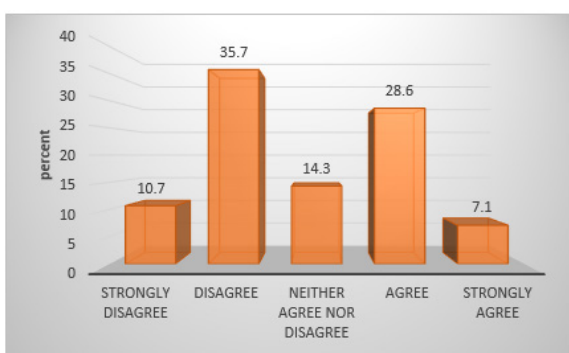


Figure 3 Hands-on experience is inadequate.

50% of respondents strongly disagree or disagree while about 39% strongly agree or agree. No clear consensus. Again, the issue of practical experience should be part of the whole FTT programmer, not just for the final assessment. As such, clear, on-going practical work should naturally lead to the final assessment for the programmer (Figures 4).

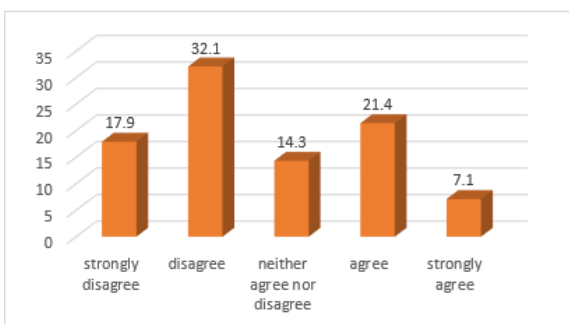


Figure 4 Students have practical only for the final assessment.

About 29% strongly disagree or disagree while about 49% strongly agree or agree that this was not happening. This has implications for

practice. As a practical course, field trips should be encouraged as the FTT programmer is tied to various industries that students need to be exposed to. It would add to respondents and students' repertoire of skills and knowledge if opportunities were offered including field trips (Figures 5).

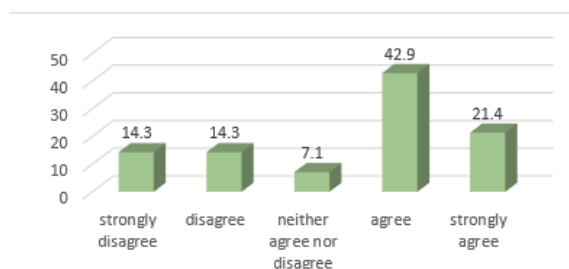


Figure 5 The programmer does not include field trips.

This is about evenly split with 43% for strongly disagree and disagree while strongly agree and agree is 46%. No clear consensus. However, the language of instruction is usually in English and for some students, terminologies, concepts, and vocabulary in the FTT programmer could be a disadvantage to better understand the course (Figures 6).

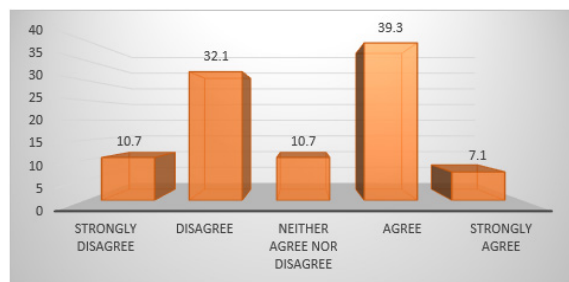


Figure 6 The language of instruction is weighed heavily towards English terminologies.

Responses varied from strongly disagree or disagree at about 39% while strongly agree or agree veered to about 54%. Although consensus is split, however, the integration of these areas will need to be considered. With technology playing an important role in the dissemination of subject content, the FTT programmer is no exception. Moreover, the integration of the various components of the FTT programmer could positively contribute to students' growth and entrance into the different food and textile industries/ businesses (Figures 7).

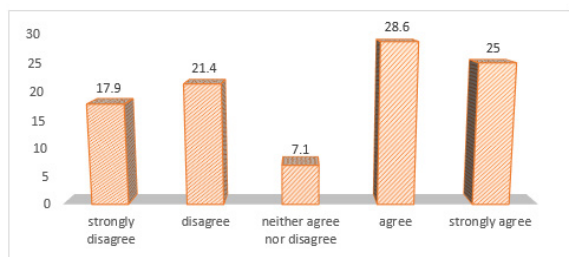


Figure 7 Lack of technology integration in the design of textile and cooking.

No clear consensus with strongly disagree or disagree at 50% while strongly agree and agree at 43%. The FTT programmer has continued to request for more time allocated in the teaching of the subject. However, this is a prolonged point of contention as all other practical courses have maintained that practical courses are not given adequate time on the timetable. It would be up to the MEC or the school management to review this (Figures 8).

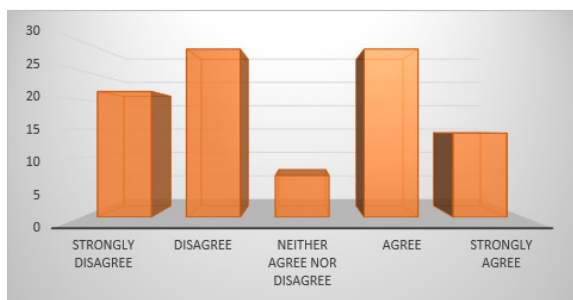


Figure 8 Insufficient time allocated for FTT on the timetable.

The open-ended responses to the survey questionnaire focused on reviewing the curriculum to ensure content coverage was linked to teaching hours. This should make it possible to incorporate a strand for field trips and practical work, which was seen as vital in subjects such as FTT. Moreover, there was a need to ensure FTT teachers' skills are complemented with appropriate skills and knowledge and not only for internal assessment preparation. While interviewed participants acknowledged these subjects were energy and time consuming, it was also evident that most schools felt MEC and school management should assist with funding and resources for effective implementation. Likewise, participants also required continuous professional of current knowledge and skills in the subject area.

Conclusion

The findings of the study focused on the social, cultural, educational, and economic problems affecting student enrolment in Home Economics/Food Textiles Technology in Secondary Schools in Samoa. This has been a perennial challenge for secondary schools as the current education system evolved from its colonial moorings to reach a point that it needed to reassess the implications of this critical area for society. Many factors have been attributed to the problems facing the teaching of HE/FTT. The results from the research pointed to teachers that lacked confidence in teaching the subject, the lack of much needed resources to teach effectively, and timetabling which reflected that it was not deemed as important as other subjects. Moreover, there was very little hand-on activities and field trips were not perceived as an important part of the programmer. In this age of computers and digital devices HE/FTT had yet to integrate new platforms into teaching and learning. The language of instruction also added another dimension, thus depriving students of teaching instruction that would enhance their interest and possible development in the area. These constraints facing secondary schools have resulted in students opting for other programmes at the NUS, thwarting development in the area for cultural, social and economic sustainability. Undoubtedly, these findings could assist in paving the way ensuring HE/FTT could be a viable programmer and assist in educational and societal developments.

Acknowledgments

None.

Competing interests

The authors report there are no competing interests to declare.

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References

1. Soti H. Teaching and learning food and textiles in Samoa: multiple perspectives on a new curriculum. 2011.
2. Duvernet L. The factors that shape the valuing of textile education in secondary schools. RMIT University; 2007.
3. McGregor SLT, Murnane JA. Paradigm, methodology and method: intellectual integrity in consumer scholarship. *International Journal of Consumer Studies*. 2010;34:419–427.
4. Dewhurst Y, Pendergast D. Home economics in the 21st century: A cross cultural comparative study. *International Journal of Home Economics*. 2008;1(1):63–87.
5. Dewhurst Y, Pendergast D. Teacher perceptions of the contribution of home economics to sustainable development education: a cross-cultural view. *International Journal of Consumer Studies*. 2011;35(5):569–577.
6. Pendergast D, Dewhurst Y. Home economics and food literacy: An international investigation. *International Journal of Home Economics*. 2012;5(2):245–263.
7. Chukwujekwu OJ, Iyegbu RU. Teachers' perception on constraints of effective teaching and learning of home economics in secondary schools in Delta state. *International Journal of Innovative Education Research*. 2019;7(3):31–36.
8. Redman E, Redman A. Transforming sustainable food and waste behaviors by realigning domains of knowledge in our education system. *Journal of cleaner production*. 2014;64:147–157.
9. Farrant JS. Principle and practice of education Longman. UK: 1990;445–447.
10. Ministry of Education Sports and Culture (MESCC). National Curriculum Framework. 2004.
11. Malama E. Challenges of teaching and learning of home economics in selected colleges in Zambia. *Journal of Lexicography and Terminology*. 2023;7(2):85–99.
12. Jemberie LW. Teachers' perception and implementation of constructivist learning approaches: Focus on Ethiopian institute of textile and fashion technology, Bahir Dar. *Cogent Education*. 2021; 8(1):1907955.
13. Ingersoll RM. Teachers' decision-making power and school conflict. *Sociology of education*. 1996;159–176.
14. Oloolobou CO. Challenges in teacher preparation efforts in colleges of education: The way forward. *Journal of Curriculum Studies*. 2007;14(3):299–306.
15. Glaser BG, Strauss AL. Discovery of substantive theory: A basic strategy underlying qualitative research. *American behavioral scientist*. 1965;8(6):5–12.
16. Glaser B, Strauss A. The discovery of grounded theory. Aldine Publishing Company; Hawthorne, NY: 1967.
17. Johnson RB, Onwuegbuzie AJ, Turner LA, et al. Toward a definition of mixed methods research. *Journal of mixed methods research*. 2007;1(2):112–133.
18. Miles MB, Huberman AM, Saldaña J, et al. Qualitative data analysis: A methods sourcebook, 3rd ed. *SAGE Publications*. 2014.
19. Stake RE. Qualitative research: studying how things work. 2010.
20. Pendergast D. Sustaining the home economics profession in new times – A convergent moment. In: Rauma A, Pollanen S, Seitamaa Hakkarainen P, et al. Eds. Human Perspectives on Sustainable Future. Joensuu, Finland: University of Joensuu; 2006.
21. Ministry of Education Sports and Culture. Education Statistical Digest 2004. MESCC policy planning and research division, Samoa. 2004.