

Effectiveness of the Capacity Development Programme on the Creation of IMFUNDO Modules by the University Teachers

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Abstract: The purpose of this study was to investigate the effectiveness of the capacity development programme on the creation of IMFUNDO modules during post-COVID-19 lockdown. The participants were 116 University teachers from the Faculty of A and B. Mixed-method research was used. Data were collected through open-ended and closed-ended questionnaires, and interviews. Quantitative data were analysed using SPSS frequency distribution. Atlas.ti was used to analyse the qualitative data. The results revealed that 109 (90.5%) of the teachers strongly agree and agree that, during the planning phase, the incorporation of IMFUNDO and technology in the curriculum was clearly stated on both the module descriptor and study guide. It was also found that 88 (76.9%) of the teachers strongly agree and agree that they constructed, scaffolded and chunked the learning content and activities based on the IMFUNDO structure for each learning unit of the module. It was further established that teachers were positive, felt great, and received excellent support during the training. It is recommended that further studies be conducted on the implementation and quality of the IMFUNDO modules during COVID-19 lockdown.

Keywords: training, empowerment framework, learning management system, instructional design, online teaching, COVID-19 pandemic, university teachers

1. Introduction

The COVID-19 pandemic forced various sectors, including education, to transform their business models and adopt technology. Technology became the driving force in most institutions. However, it posed a challenge, as most stakeholders were not equipped to use technology as a solution to their daily routine work (Du Plessis, et al., 2022). The acceleration of the pandemic impacted most job and study activities, necessitating its transformation to online platforms, and affecting the daily lives of billions of people (Yu, Liu, Huang and Cao, 2021). This disruption had a substantial impact on Higher Education Institutions. (Du Plessis, et al., 2022).

Most Higher Education Institutions (HEIs) adopted emergency remote teaching during the COVID-19 pandemic (Hodges et al., 2020). In HEIs, the shift to online curriculum delivery transformed the manner in which both students and teachers interact with educational content. (Mbhiza, 2021). This author argues that the COVID-19 pandemic in effect forced the education sector to be responsive to the new paradigm. The researcher may argue that, within the South African context, HEIs experienced substantial digital maturity. The study University of Technology implemented an emergency multimodal teaching, learning and assessment strategy, forcing its teachers to embrace the IMFUNDO learning management system in their teaching practices under trying circumstances. IMFUNDO is the pseudonym for the learning management system (LMS) used at a study university for online and blended learning (Simelane-Mnisi, 2020; Simelane-Mnisi & Mji, 2020; Simelane-Mnisi & Mokgalaka-Fleischmann, 2022). The IMFUNDO was used by the university teachers to design and developed their modules for more than 16 years. Even though the system existed for long, not all university teachers used it in their teaching practices as it was not compulsory. During the COVID-19 pandemic, the university teachers were required to rapidly transition from face-to-face teaching to online teaching using IMFUNDO.

To support University teachers with the planning, design and development of online modules on IMFUNDO, the study university implemented an Emergency Remote Teaching and Empowerment Programme. The empowerment framework was employed to enhance the digital skills, pedagogy and practice of the teachers. The framework ensured that, even at the rapid speed of adoption, the quality measures of available online materials were adhered to. This was achieved by using the approved Higher Education Qualifications Framework programmes. These programmes were created within the Faculty by means of the incorporation of technology in the curriculum, and constructive alignment. This argument supports Razeed (2021), who stated that it is believed that in explaining the theoretical frameworks used in curriculum design and development, as well as teaching and learning methodologies, other academics and instructional design teams would be afforded the ability to draw inspiration, which could be applied in their own contexts. The researcher can argue that when the initial COVID-19 pandemic lockdown restrictions were implemented at national level, as

the instructional designer in the Faculty of A, she was actively engaged in the curriculum integration and interactive IMFUNDO modules redesign.

Yu et al. (2021) pointed out that the Ministry of Education in China mandated that universities and colleges throughout the country coordinate for teachers to learn online teaching methods during the COVID-19 pandemic. Sumer, Douglas and Sim (2021) opined that teachers needed training and support in order to properly transform their practices during crises and develop online teaching and learning events. For this reason the study University of Technology in South Africa opted the instructional designers as suitable candidates to provide emergency remote teaching support. The goal of the Emergency Remote Teaching and Empowerment Programme (ERTEP) was to assist lecturers in transitioning from traditional teaching to online or remote teaching, integrating various tools of the IMFUNDO to the benefit of the students (Simelane-Mnisi, 2020). This author pointed out that the instructional designers had to ensure that pedagogy took precedence throughout this phase, as technology alone does not guarantee a pleasant or effective learning experience. To further ensure quality, instructional design models were used. The criteria guaranteed that online modules deliver high-quality learning materials, while taking into account the socio-economic status of students (Simelane-Mnisi and Mji, 2020).

The purpose of this study was to investigate the effectiveness of the capacity development programme on the creation of IMFUNDO modules during post-COVID-19 lockdown. To accomplish this, the IMFUNDO teaching and empowerment [training] framework was developed. Survey questionnaires with closed-ended and open-ended questions, and individual interviews were used to determine the effectiveness of the programme on the creation of IMFUNDO modules.

2. IMFUNDO teaching and empowerment framework

The researcher developed the IMFUNDO teaching and empowerment [training] framework (ITEF) as a mechanism in support of University teachers at the Faculty of A and B during the COVID-19 pandemic lockdown. The ITEF was developed and implemented after the conclusion of institution empowerment sessions conducted as supplementary support.

The ITEF ensured that University teachers were equipped with the necessary skills for the planning, design and development of the IMFUNDO modules. It further ensured that all necessary quality standards were met during the empowerment. The quality standards relating to learning outcomes, assessment criteria, learning material (content), learning activities, interactions(collaborations), feedback, and course technology as stipulated in the approved Higher Education Qualifications Framework (HEQSF) curriculum developed. This was formulated to prevent teachers from compromising the quality of the online material (Simelane-Mnisi, 2020). In addition, the concept of constructive alignment was emphasised (Simelane-Mnisi and Mji, 2020). Learning outcomes, learning material (content), learning activities, interactions (collaborations), feedback, and course technology were applied. These ideas coalesce to guarantee students attain the desired learning outcomes (Simelane-Mnisi, 2020). The Do-It-Yourself Approach was applied, since the institution used one instructional designer per Faculty model.

The Arena, Blended and Connected Approach learning design, TPACK, Flipped Learning Approach, Revised Community of Inquiry, and constructivism philosophy served as the basis for the ITEF (Simelane-Mnisi, 2020). During the remote empowerment, various teaching strategies relating to active learning design, scaffolding and chunking, as well as quality issues were utilised. Figure 1 presents the ITEF. To empower and equip teachers with the necessary skills to teach remotely, several online sessions were held. The researcher developed the Remote Teaching and Empowerment Guide, as well as the IMFUNDO module. To read more about ITEF, refer to Simelane-Mnisi and Mokgalaka-Fleischmann (2022).

IMFUNDO Teaching and Empowerment/Training Framework

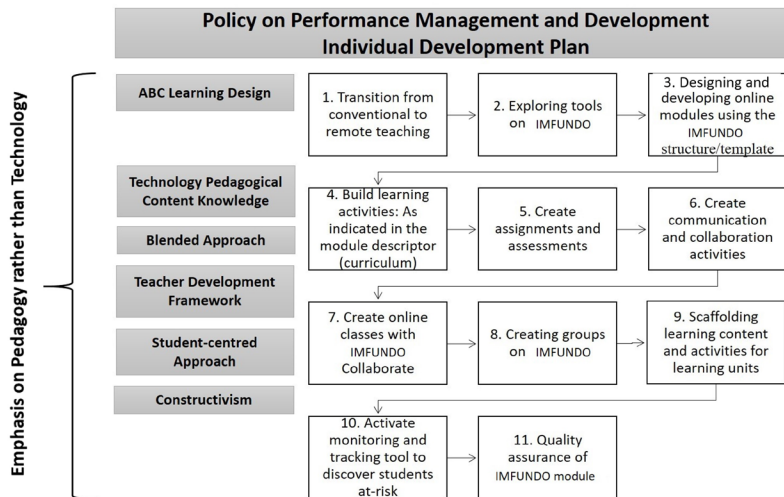


Figure 1: IMFUNDO teaching and empowerment [training] framework (ITEF)

3. Method

The question posed in this study was: How effective was the capacity development programme attended by university teachers to create modules on IMFUNDO during Post COVID-19 lockdown? To answer this question, mixed-method research with embedded design was used. Mixed-method research is rooted in pragmatism theory, which acknowledges and works with the fact that the world is neither purely quantitative nor quantitative; it is a mixed world (Cohen, Manion and Morrison, 2018). Embedded design is when qualitative data is embedded within quantitative data, or vice versa (Leech and Onwuegbuzie, 2009). In this study, qualitative and quantitative data were collected simultaneously through a survey questionnaire with open-ended and closed-ended questions, and by means of interviews. Data were analysed separately; quantitative data were analysed using SPSS frequency distribution. Qualitative data analysis follows Saldaña’s thematic approach to analysis (Saldaña, 2015). Thematic analysis is the process of identifying patterns of meaning (themes) through codes (Saldaña, 2021).

4. Participants

The study employed stratified purposive sampling in selecting the participants (Cohen, Manion and Morrison 2018). The researcher selected University teachers from the population of two faculties at the study university. Furthermore, the researcher selected limited cases from these faculties based on purposive sampling. This implies that the participants were 116 University teachers from the Faculty of A (79.5%) and B (24.1%). These teachers were selected because they responded to the online survey questionnaire. Less than three quarters (66.4%) of the teachers were females. Of these females, 66 were from the Faculty of A. The average age group ranged between 46 - 55. Of this age group, 27 teachers were from the Faculty of A. The study further found that 114 teachers made use of IMFUNDO modules.

Table 1: Cross-tabulation of participants’ biographical data

	Faculty			Total
	Female	A	B	
Gender	Female	60	17	77
	Male	28	11	39
Total		88	28	116
Age	25 – 35	19	7	26
	36 – 45	19	6	25
	46 – 55	27	10	37
	56 - 65	19	4	23
	65 and above	4	1	5
Total		88	28	116
Module on IMFUNDO	Yes	86	28	114
	No	2	0	2
Total		88	28	116

5. Instrument and procedure

5.1 Survey questionnaire

The survey questionnaire consisted of closed-ended questions addressing the quantitative aspects of this study. Part A of the questionnaire gathered data concerning the personal information of the teachers. Part B related to data concerning the design and development of IMFUNDO modules after the teachers were empowered. This instrument consisted of four subscales relating to (a) Planning (5 items); (b) Design (5 items); (c) Development (4 Items); and (d) Perception (3 items).

5.2 Open-ended question

Part C of the survey questionnaire consisted of one open-ended question. The question asked was: How do you feel about the planning, design and development of your IMFUNDO after you attended the training during COVID-19 and national lockdown?

5.3 Interview

To corroborate and triangulate the findings, the individual, semi-structured interviews asked a similar question than the related open-ended question. The interviews were conducted online via Skype, during lockdown. The recorded interviews were then transcribed and sent to the teachers in order to verify whether the data has been accurately captured.

6. Results and discussion

The results revealed the scores for the entire questionnaire comprising of 18 items for internal consistency, the Cronbach's alpha (Cronbach, 1951) values are .87, suggesting that the items have a relatively high internal consistency. This was deemed reliable, as researchers (e.g., Tavakol and Dennick, 2011) point out that a score of alpha above .80 is a good score. The alpha values of the 18 items ranged between .85 - .90.

When teachers were empowered for the planning phase, they were encouraged to use the approved HEQSF curriculum when preparing the material for online delivery. To maintain the constructive alignment and use the appropriate technologies, the curriculum practitioners, instructional designers, and subject matter experts developed the HEQSF programmes. Research revealed that during the pandemic, support models that included IMFUNDO training and support in partnership with teacher experts, were also encouraged (Hodges et al., 2020). It may be observed from Table 2 that, concerning Planning 2 and in development of their own modules, 109 (90.5%) of the teachers strongly agreed and agreed they did access and/or referred to the empowerment guide and IMFUNDO online Faculty module after the training sessions. Sumer et al. (2021) and Lapitan Jr, et al. (2021) argued that the user guide was important during the pandemic phase, as it reduced anxiety among the teachers. Similar results in Planning 3 were found, where teachers (90.5%) indicated that during the planning phase, the incorporation of IMFUNDO and technology in the curriculum was clearly stated on both the module descriptor and the study guide. The results also showed that 102 (88%) teachers agreed and strongly agreed in Planning 1, that they attended the remote empowerment webinars to prepare for the development of IMFUNDO modules. This suggests that most of the teachers deemed it necessary to be granted sufficient time in order to be empowered. This is observed in the study University's (2020) multimodal learning, teaching and assessment strategy that emphasises ongoing staff capacity development to ensure teachers are supported throughout the remote teaching period.

During the design phase, teachers were empowered to use a storyboard to populate learning material that emphasises the scaffolding and chunking of learning content and material, with the selection of relevant technologies. The scaffolding was emphasised during the design stage (Chen, et al., 2021). The results revealed that 110 (94.8%) teachers strongly agreed and agreed that, in Design 5, they created subject contents or materials such as PowerPoint presentations, notes, videos and audio, etcetera. This suggests that most teachers were able to design learning material using various technologies uploaded on the IMFUNDO. In Design 1, the results showed that 105 (90.5%) of the teachers strongly agreed and agreed that, when designing their modules on IMFUNDO, they used the storyboard that was aligned with the module descriptor or study guide to establish learning outcomes, assessment criteria, learning material, select appropriate technologies that encouraged student engagement, and relevant assessment methods for each learning unit. This implies

that most of the teachers maintained the constructive alignment as initially planned on the approved HEQSF curriculum design (Simelane-Mnisi and Mji, 2020).

During the development phase, teachers were given the IMFUNDO template or structure to scaffold and chunk content and activities for each learning unit based on its design. In this case, the results showed that in Development 1, 99 (85.3%) teachers created and built all content and components based on the design phase. This implies that most of the teachers did not deviate from their plan when developing online modules. The results also showed that in Development 2, more than three quarters (76%) of the teachers (88 participants) constructed, scaffolded and chunked the learning content and activities based on the structure for each unit on IMFUNDO. Supporting this result, is Sinnayah, Salcedo and Rekhari (2020), who revealed that the H5P platform was used to foster self-paced and self-directed learning, critically outlining the developmental process involved in scaffolding activities to learning outcomes. The results further indicated that, during Development 4, 86 (74.1%) of the teachers attended the IMFUNDO academic orientation before implementation with the students. It gave them the opportunity to use IMFUNDO as a student, effectively allowing them to align their modules accordingly. The result also revealed that, in Development 3, 108 (93.1%) of the teachers made the module available to students on selected media, and tools of delivery.

Concerning teacher perception, the results showed that 101 (87 %) of the teachers strongly agreed and agreed that, in Perception 1, they liked the idea of using IMFUNDO during lockdown, and they should continue using it even while back on campus. The idea of this study's perception of enjoying IMFUNDO emphasises that the use of an LMS to deliver Online Interactive Activities increases the amount of space and time available for interactive teaching and learning (Chen, et al., 2021). More than three quarters (77%) of the teachers strongly disagreed and disagreed that, at times in Perception 3, they felt lonely while designing and developing IMFUNDO in isolation. The researcher may argue that the Faculty WhatsApp community of practice groups, WhatsApp support from the instructional designer, and other teachers were made available at teachers' convenience to attend to their requests, and provide solutions at any given time during the pandemic. The results further revealed that less than half (46%) of the teachers in Perception 2 enjoyed using IMFUNDO, as it encouraged them to adopt a blended, online approach to teaching. Chen et al. (2021), who stated that Online Interactive Activities and corporate training programs promoted blended and active learning experiences, supports this statement. Lapitan Jr, et al. (2021) further argued that additional outbreaks and impending lockdowns encourage most University teachers to consider synchronous, asynchronous, and blended learning strategies for online teaching.

Table 2: The design and development of IMFUNDO modules frequency distribution

Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Planning [(n = %)]						
1	Planning 1	61 (52.6)	41 (35.3)	9 (7.8)	5 (4.3)	-
2	Planning 2	70 (60.3)	39 (30.2)	9 (7.8)	1 (9)	1 (9)
3	Planning 3	44 (37.9)	43 (37.1)	16 (13.8)	11 (9.5)	2 (1.7)
4	Planning 4	59 (50.9)	32 (27.6)	15 (12.9)	8 (6.9)	2 (1.7)
5	Planning 5	55 (47.4)	36 (31.0)	15 (12.9)	9 (7.8)	1 (9)
Design [(n = %)]						
6	Design 1	65 (56.0)	38 (32.8)	10 (8.6)	2 (1.7)	1 (9)
7	Design 2	65 (56.0)	40 (34.5)	9 (7.8)	2 (1.7)	-
8	Design 3	55 (44.0)	49 (42.2)	15 (12.9)	1 (9)	-
9	Design 4	34 (29.3)	45 (38.8)	29 (25.0)	7 (6.0)	1 (9)
10	Design 5	85 (73.3)	25 (21.6)	4 (3.4)	2 (1.7)	-
Development [(n = %)]						
11	Development 1	52 (44.8)	47 (40.5)	10 (8.6)	6 (5.2)	1 (9)
12	Development 2	42 (36.2)	46 (39.7)	20 (17.2)	7 (6.0)	1 (9)
13	Development 3	74 (63.8)	34 (29.3)	7 (6.0)	1 (9)	-
14	Development 4	57 (49.1)	29 (25.0)	18 (15.3)	9 (7.8)	3 (2.6)
Perception [(n = %)]						
16	Perception 1	66 (56.9)	35 (30.2)	11 (9.5)	4 (3.4)	-
17	Perception 2	14 (12.1)	39 (22.6)	24 (20.7)	18 (15.5)	21 (18.1)
18	Perception 3	5 (4.3)	6 (5.2)	16 (13.8)	34 (29.3)	55 (47.4)

6.1 Qualitative findings

In analysing the qualitative data the Atlas.ti Project named ‘University Teachers’ Capacity Development Programme’ was created. Two primary documents (Open-ended question and Interviews) were added to the project. The researcher created 99 codes. These codes were then grouped into nine categories relating to lockdown, training, forced, rapid, IMFUNDO, successful, challenging, time, and support. The theme of capacity development emerged from these categories. Figure 2 presents the conceptual network capacity development.

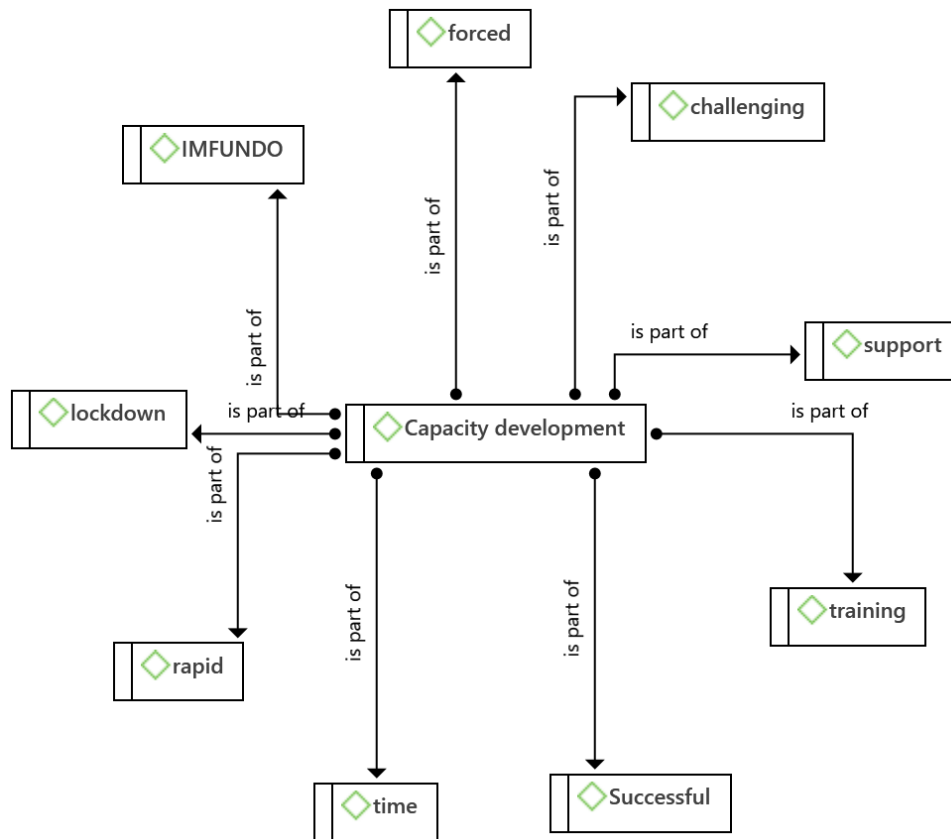


Figure 2: The conceptual network capacity development

6.1.1 Capacity development programme

In terms of Category 1, *Lockdown*, it was established that a number of the University teachers were using IMFUNDO before COVID-19 lockdown, whilst other teachers indicated lockdown forced them to transit all their teaching activities online. Dr Pretorius revealed that *during lockdown*, they were forced to do everything and demanded a lot of work. Mrs Vilakazi mentioned that, *although IMFUNDO had been available for some time prior to lockdown, she had only really used it for the uploading of PPT presentations, videos and assignment briefs. She has not conducted assessments through this platform.* The International Labour Organization and World Bank (2021) stated that the COVID-19 pandemic, concomitant lockdown and social distancing measures created not only unprecedented disruption in education and training, it also catalysed distance learning innovation. Regarding Category 2, *Training*, the findings revealed that teachers appreciated the virtual trainings that were conducted, as it assisted them to plan. Mr Motaung indicated that *attending the trainings helped him to plan and execute the activity well.* Mr Mbatha said *the training assisted to give direction where needed (P1:20).* Dr Diketo felt that *the training was well planned. There were definitely more than enough sessions. However, other teachers did not use it enough to be able to learn it properly. Other teachers should have used it more and more, but the training helped. The online sessions definitely helped.* It may be argued that the Faculty of Teaching and the empowerment framework for University teachers to enhance their digital skills, competency and fluency in difficult times, proved to be successful (Simelane-Mnisi, 2020; Simelane-Mnisi and Mokgalaka-Fleischmann, 2022). This can be attributed to the fact that teachers were able to design their modules using various IMFUNDO tools. Ms Ndlovu indicated that *the training provided was sufficient in terms of learning the tools.*

Concerning Category 3, *Forced*, one of the teachers indicated that, during the COVID-19 lockdown, capacity development to prepare material for online delivery was not by choice, they were forced to do it, though it increased the workload. Dr Sibisi indicated that *during lockdown, they were forced to do everything online, and it demand a lot of work*. This statement is supported by Mbhiza (2021), who emphasised that the forced and rushed adjustments in South African universities due to the pandemic seem to be revolutionary in the educational sector. About Category 4, *Rapid*, teachers indicated they had the notion that the institution required them to transit from traditional teaching to remote teaching at a rapid pace, and IMFUNDO was available for support. Mr Maluleke mentioned that *the process was rapid, and offered a world class platform for teaching and learning. He could also incorporate practical aspects of his course on IMFUNDO platform*. The same sentiments were shared by Prof Mason, who felt that *the transitioning process was good, but rushed. Change was brought about too quickly*. Literature also conquered with teachers in this study, and revealed that globally, while many classes were immediately redirected to online teaching, the process was accompanied by continuous teacher training, and the distribution of routers and laptops to teachers (The International Labour Organization and World Bank, 2021).

In terms of Category 5, *IMFUNDO*, the findings show that most of the teachers revealed they were empowered in the designing of IMFUNDO during a very uncertain time. This is confirmed by 88% of the teachers, who indicated they attended IMFUNDO capacity development during lockdown. Mr Malatji stated that they *were taken through the training for the design and development of IMFUNDO to be used during the lockdown*. The teachers further indicated that the IMFUNDO template was not difficult to use, and ensured constructive alignment. Dr Molotsi said *designing in that new kind of shell was not so difficult*. Furthermore, Ms Mabaso indicated that she *build the module framework and used examples from Engineering Faculty*. It was also found that IMFUNDO assisted teachers to upload learning material so that students could access the information while learning in isolation. Mr Shabangu indicated that *during lockdown they had to upload a lot of certain materials for the students*. Literature revealed that most HEIs used LMS during the COVID-19 lockdown (Gumede and Badriparsad, 2021; Sumer, et al., 2021; Lapitan Jr, et al. 2021; Simelane-Mnisi and Mji 2020). Regarding Category 6, *Successful*, it was found that teachers viewed the emergency capacity implemented during the COVID-19 lockdown period as successful. The concepts expressing its success were *plan, no problem, easy, effective, learned, lots of material and opportunity*. Ms Lee indicated that *attending the trainings helped her to plan and execute the activity well*. Dr Maseki revealed that *the planning and the actual offering of the sessions were great. There was no problem with the content and then with the amount of sessions*. Dr Neo said *overall planning and design of teaching were effective, especially with theory*. The findings in this study vary from the report by UNESCO indicating that in Ukraine during the pandemic, all work-based learning activities were suspended, with no apparent plan for it to be resumed (UNESCO, 2021).

Concerning Category 7, *Challenging*, it was established that teachers found the capacity development programme challenging, and they prefer face-to-face training. Mr Mahlangu indicated that *it was challenging and required a lot of training, but it was worth it as he was more knowledgeable. He still prefer face-to-face class*. Dr Ramashala said *it was challenging because it was not something that they were used to. They were doing it, but not intense, the way we were doing it during lockdown*. About Category 8, *Time*, the findings revealed that teachers were given time to attend empowerment sessions. Dr Masilo indicated that she *attended all the online sessions. She made time for it because she believed that the institution gave them time to actually prepare. They needed to make positive use or constructive use of that time that was available*. However, other teachers were devastated by the short time. Dr Mooi felt *overwhelmed with the work that was supposed to be completed in a short space of time*. The findings in the study conducted by Sumer, et al. (2021) revealed that traditional higher education staff members did not have time to prepare for and/or receive support for emergency remote training.

In terms of Category 9, *Support*, it was found that teachers received support from the institution and Faculty instructional designer, eChampions, as well as peers. Dr Dlamini indicated that he *was very happy, because he has gained a lot of experience going through all empowerment sessions, as the faculty instructional designer offered informative training*. The research also shows that instructional designers played an important role during and after the pandemic. In this light, Sumer et al. (2021) demonstrated the necessity to connect with staff and support them in an unpredictable environment, allowing them to always focus on the student experience (Sumer, et al., 2021). Mr Maleka mentioned that *the Faculty instructional designer and the team of eChampions really did their best to guide and assist staff members in a short period of time*. Mrs Wild indicated that, *when she had to look at her peers and some of the teachers whom she was helping, she realised that this*

training, when you are alone it was okay. However, she was lucky, because she was part of the teachers that the eChampions from the university helped.

7. Conclusion

It may be concluded in this study that the University teachers viewed the IMFUNDO emergency remote empowerment programme to be efficient. This was observed by the majority of teachers, who indicated that they pitched for the online sessions. Even though the remote approach to online teaching was adopted, it could be argued that the importance of constructive alignment and alignment of the approved HEQSF curriculum was emphasised to ensure quality and standards were maintained in uncertain times. This implies that even during crises and disruptions caused by natural diseases, viruses and disaster, it is essential for university teachers to adhere to the planned curriculum when emergency learning and teaching is established. University teachers should be afforded with appropriate guidance for online and technology-enhanced pedagogy and andragogy with the support of the instructional or learning designers. The relationship between the subject matter expert, instructional designer and curriculum practitioner needs to be reinforced for better learning outcome that will ensure student engagement, improved performance, and success rate. Furthermore, the support provided by the teachers' empowerment guide, online IMFUNDO module with links to the empowerment sessions, eChampions, as well as the Faculty instructional designer, contributed to the adoption and fast tracking of the development of the modules on IMFUNDO for subsequent implementation in the same year. The limitations to this study were posed by the limited number of participants from two Faculties that were recruited and the low response rate of the survey questionnaire.

8. Recommendation

It is critical for the HEIs curriculum developers, instructional designers and subject matter experts to collaborate when designing and developing online material. The university and the statutory bodies' standards should be adhered to in order to ensure the quality of the modules are maintained, and still produce competitive graduates; even post-pandemic. It is recommended that further studies be conducted on the implementation as well as the quality of the IMFUNDO modules during COVID-19 lockdown. Further studies should be conducted with a larger sample population within a similar context.

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