

# Meta-Synthesis On Faculty Development During The Covid-19 Pandemic

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**Abstract** - Faculty members are considered the frontliners in the delivery of quality education in any learning institution. Their essential contributions accelerated the learners' transformations. To assist teachers in performing their many roles, a faculty development program must be adapted to their specific needs and the current problems posed by the COVID - 19 pandemic. This systematic review used a meta-synthesis to focus on the faculty development program created during the new reality. The study on the onset of the global health crises from 2020 to 2021 included 12 studies. The studies were selected for systematic review using the Critical Appraisal Skills Programme (CASP) checklist and structured using the PRISMA 2020 flow diagram. The thematic analysis results revealed seven themes: implementing a learning continuity plan; training; design and delivery of short courses through a learning management system; online teaching pedagogy; evaluation and feedback; faculty support networks; and student support. Dimensions of a faculty development program emerged as the meta-theme of the study. It is recommended that the following dimensions of the faculty development program shall be considered, especially when face-to-face interaction is unfeasible.

**Index Terms** - COVID-19 pandemic, faculty development program, meta-synthesis, systematic review.

## I INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic, according to Saboowala and Mishra (2021), has devastated the entire world. The pandemic altered the traditional manner in which the education sector provides services. Many schools were not able to withstand the pandemic's hardships. However, several companies sought a variety of strategies to keep operations running despite the virus's threat. In the light of persistent global health problems, COVID-19 has prompted educational leaders to reevaluate acceptable teaching-learning pedagogies. Furthermore, Saboowala and Mishra (2021) concluded that teacher training programs helped teachers progress their careers and expertise.

Farnell et al. (2021) investigated the influence of COVID – 19 on higher education. They found that nearly all of the institutions analyzed

abruptly switched to emergency remote teaching, with university officials deeming the shift a success. The majority of higher education institutions provided teaching and learning support in training and technical assistance. On the other hand, some universities have experienced challenges with technology and tools when it comes to conducting online classes. The teaching staff was also able to move their on-site teaching materials to online formats successfully. However, there is a distinction between emergency remote teaching and online learning that results from this — small emergency teaching comprises shifting on-site classes to a virtual mode without changing the curriculum or methodology.

At the height of the COVID – 19 pandemic, many universities shifted to online instruction in March 2020. The school administrators faced challenges

in redesigning the faculty development program to address the needs of the teachers on how to deliver education remotely (Goldsmith, 2021). Various training activities were contextualized and streamlined to ensure the quality of instruction. Different modalities in teaching were used as a result of careful planning and implementation of the schools' learning continuity plan.

For the education sector to move forward and continue and advance, there must be continuous development to ensure the quality of its outputs. The performance and contribution of the faculty is a fundamental building block of this educational process (Alqoot, 2021). The development of the faculty became an urgent need in light of the learning delivery changes. The faculty needs to be developed to deal with the shift to distance learning or online learning.

The shift in the educational landscape resulting from the COVID-19 pandemic, focusing on remote teaching and learning, re-engineered faculty development programs in all academic levels to address the pressing concerns of the time. Much work needs to be done to help teachers thrive in the new teaching mode. Thus, this systematic review on faculty development programs during the COVID - 19 pandemic is being conducted.

This systematic review aims to explore the dimensions of faculty development programs during the COVID-19 pandemic employing a meta-synthesis method.

## **2 MATERIALS AND METHODS**

### **2.1 Research Design**

This study employs a meta-synthesis research design that strives to interpretatively consolidate

results from different inter-connected studies (Walsh & Downe 2005). It is the systematic review and integration of findings from qualitative studies, according to (Lachal et al., 2017).

### **2.2 Study Search Procedure**

The researchers have set inclusion and exclusion criteria in this meta-synthesis study. Published papers from the Google Scholar, Taylor and Francis, ProQuest databases were used to select papers related to faculty development during the Covid-19 pandemic using Publish or Perish Software (Harzing, 2007). The timeline was purposely set from 2020 to 2021. Further, the descriptors or keywords entered in the software were as follows: faculty development, faculty development program, covid-19 pandemic. The keywords mentioned earlier were selected to draw out articles. A flow diagram using PRISMA 2020 was then utilized to sort out the screened data.

### **2.3 Inclusion and Exclusion Criteria**

Inclusion and exclusion criteria provide a basis on which the reviewer draws valid and reliable conclusions (Meline, 2006). Included studies were selected on the basis of inclusion criteria protocol: (a) papers published from 2020-2021; (b) must include studies related to faculty development; (c) must be during the Covid-19 pandemic; (d) must utilize qualitative design; (e) must be written in English; (f) must qualify using the critical appraisal skills programme (CASP). Selected papers were screened with the set inclusion criteria. The figure below shows the search strategy of the included studies

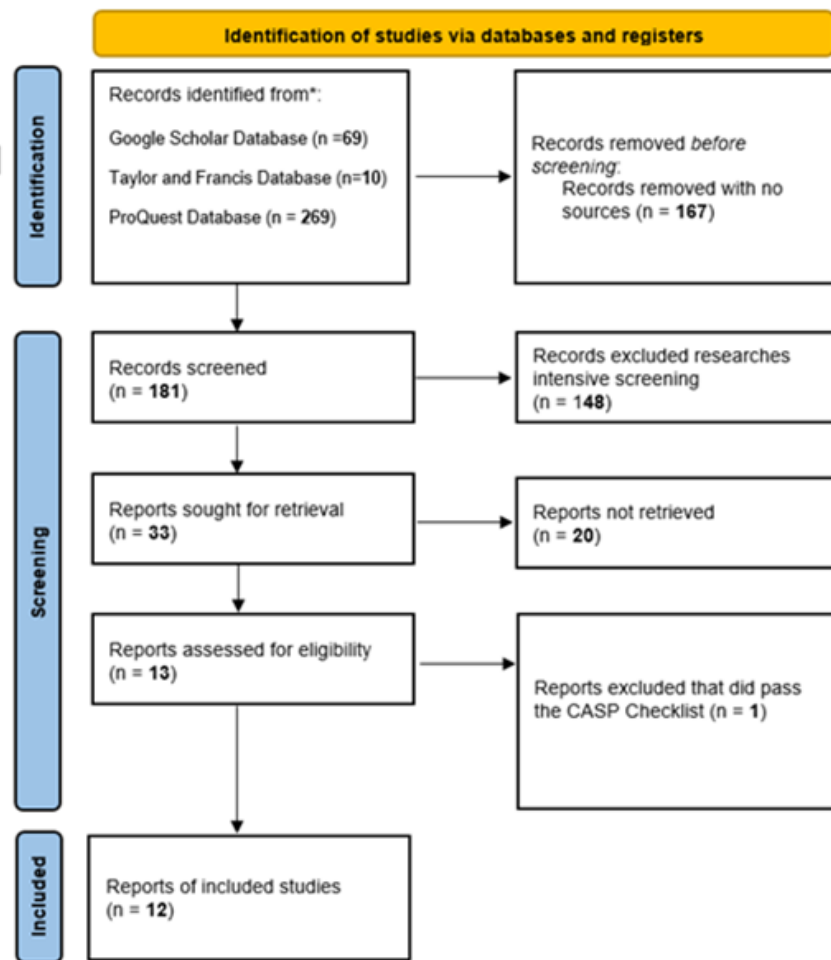


Figure 1. Search strategy utilizing PRISMA

## 2.4 Data Analysis

Clarke and Braune's (2013) protocol on thematic analysis was used to identify the emerging themes. It is a qualitative data analysis method that involves reading through a data set and identifying patterns in meaning across the data. The six-step protocol of thematic analysis is the following: (1) familiarization with the data; (2) generation of initial codes; (3) looking for

themes; (4) appraising themes (5) representation of themes; (6) interpreting results.

## 3 RESULTS AND DISCUSSION

The faculty development programs conducted during the covid-19 pandemic were used to generate initial codes, and the 12 studies were considered in the meta-synthesis. Table 1 shows the title of the study and its authors and the generated initial codes used for thematic analysis.

Table 1 Studies focusing on faculty development during the Covid-19 pandemic

Article	Authors & Year of Publication	Generated Initial Codes of the Faculty-Development Programs during the Covid-19 Pandemic
1	Narasimman et al., 2020	<ul style="list-style-type: none"> <li>Use of Learning Management System helps in delivering online content</li> </ul>

		<ul style="list-style-type: none"> <li>• Educators' need on the training of Online Learning Materials               <ul style="list-style-type: none"> <li>• Design and delivery of a short course on LMS</li> </ul> </li> </ul>
2	Colleen et al., 2021	<ul style="list-style-type: none"> <li>• Evaluation and Feedbacking</li> <li>• Utilizing spaced education via email</li> </ul>
3	Matthew et al., 2021	<ul style="list-style-type: none"> <li>• Virtual Communities of practice provides professional development               <ul style="list-style-type: none"> <li>• Support Network                   <ul style="list-style-type: none"> <li>• Assessment</li> </ul> </li> <li>• Teamwork and engagement</li> </ul> </li> </ul>
4	Boklage et al., 2021	<ul style="list-style-type: none"> <li>• Pedagogical practices</li> <li>• Student support (Collaboration between students)</li> <li>• Reorienting the space towards service to support the university</li> <li>• Reevaluation of curriculum, pedagogy, and instructional practices               <ul style="list-style-type: none"> <li>• One-on-one support</li> </ul> </li> </ul>
5	Mulla et al., 2020	<ul style="list-style-type: none"> <li>• Preparing contingency plans</li> <li>• Transition, of course, materials into eLearning formats and into an LMS,               <ul style="list-style-type: none"> <li>• Creation of a quality eLearning program</li> </ul> </li> <li>• Engagement in interactive learning activities</li> </ul>
6	Heather Buckley, 2021	<ul style="list-style-type: none"> <li>• Virtual faculty development session</li> <li>• Continuity of connection through email</li> <li>• IT services offering drop-in clinics               <ul style="list-style-type: none"> <li>• attending to student well-being</li> </ul> </li> </ul>
7	Baker & Lutz, 2021	<ul style="list-style-type: none"> <li>• Prioritizing work-life practices               <ul style="list-style-type: none"> <li>• Assessment and promotion</li> </ul> </li> <li>• Academic community engagement and community-based learning               <ul style="list-style-type: none"> <li>• Accessibility to Research</li> </ul> </li> </ul>
8	Yusuf et al., 2021	<ul style="list-style-type: none"> <li>• Asynchronous online learning environment to learn at their own pace               <ul style="list-style-type: none"> <li>• Flipped learning for self-regulated learning</li> </ul> </li> <li>• Synchronous online learning support (Support and discussion)               <ul style="list-style-type: none"> <li>• Peer review</li> </ul> </li> </ul>
9	Hodges et al., 2021	<ul style="list-style-type: none"> <li>• Remote instruction</li> <li>• Remote workshops</li> <li>• Remote observations</li> <li>• Remote consultations</li> </ul>
10	Virant-Young et al., 2021	<ul style="list-style-type: none"> <li>• Adoption to a virtual format</li> </ul>
11	Hollander et al., 2020	<ul style="list-style-type: none"> <li>• Synchronous training</li> <li>• Asynchronous training</li> </ul>

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		<ul style="list-style-type: none"> <li>• Creation of a cross-discipline learning community <ul style="list-style-type: none"> <li>• Connection with colleagues</li> </ul> </li> <li>• Community-led professional development</li> </ul>
12	Goldsmith, Christy, 2021	<ul style="list-style-type: none"> <li>• Recognition of shared trauma</li> <li>• Individualized real-time suggestions for teaching moves <ul style="list-style-type: none"> <li>• Opportunity to reflect on the goals</li> </ul> </li> <li>• Sustaining social and professional development</li> </ul>

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As shown in the table, the initial codes on the faculty development during the covid-19 pandemic were generated to search for themes. The generated codes were analyzed using thematic analysis, which emerged seven (7) themes and one (1) meta-theme. The themes generated are the following: (1) training; (2) design and delivery of short courses on LMS; (3) evaluation and feedback; (4) online teaching pedagogy; (5) faculty support network; (6) student support; and (7) learning continuity plan. Dimensions of the faculty development program during the Covid-19 pandemic are revealed to be this study's meta-theme. The seven (7) themes and one (1) meta-theme were discussed below.

### **Theme 1. Implementing A Learning Continuity Plan**

The COVID-19 pandemic, according to Quinco-Cadosales et al. (2021), disrupted academic institutions at all levels. School authorities, teachers, students, and parents confronted numerous challenges. The learning institutions at all levels conducted various activities to re-inform the stakeholders on their plans to thrive during the pandemic. To adapt to the new normal, school administrators enumerated different strategic directions, including conducting surveys to determine the school's needs, executing the school's learning continuity plan, teacher training, and collaboration with government organizations, parents, and stakeholders. Mulla et al. (2020) underlined the significance of establishing contingency plans for academic and faculty development resources available in 100% eLearning formats due to the global health crisis. Hollander et al. (2020), who emphasized the importance of a cross-discipline learning community, supports the need for a learning continuity plan.

### **Theme 2. Training**

Training is concerned with developing an employee's specialized skill to a target standard through instruction and practice. It is a way to help employees do their tasks efficiently, effectively, and responsibly. Employee training entails teaching and learning activities aimed at assisting employees in acquiring and applying the knowledge, skills, abilities. According to Cadosales et al. (2020), giving day care workers with training and training programs helped them administer the center successfully and efficiently. Further, Ndayimrije and Bigawa (2020) emphasized that training would assist teaching interns better deal with the problems they will face in the future. Aside from that, training program offers qualifications to teaching interns, which may be useful when seeking for jobs. As Cadosales et al. (2021) also stressed that development of teaching interns' competences was aided by proper training, which provided them with concepts for creating a sense of effectiveness. This inspires the teaching intern to strive to be better than they are, and they will be able to permanently instill the skills they have learned. It also provides adequate understanding of the notion of teaching as a vocation, which may provide excitement in learning while undergoing training.

In an ever-changing environment, employee training is critical (Coffin, Murray & Perez, 2015). It is a vital function of the human resource department that aids in the improvement of employee competency. Employees gain from training in various ways, including increased efficiency and effectiveness, the development of self-confidence, and assistance with self-management (Kleisch, Sloan, & Melvin 2017).

The training provided to staff has a direct impact on the organization's stability and success. Every stage of expansion and diversity necessitates training. Only through training can the quality of the product be improved and wastages reduced to a minimum. To adapt to a changing environment, training and growth are equally critical. According to Quinco-Cadosales (2017), seminar-workshops can be organized as training events in a faculty development program to address faculty needs.

With the COVID 19 pandemic, the surrounding circumstances of the learning process have changed drastically (Frankel et al., 2020). Online learning has shown significant growth rates; thus, a priority is ensuring that online educators understand their students' needs and motivation. Faculty training is now a crucial part of the successful adoption of online learning pedagogies (Strawser & Smith 2020). As the field of education continues to evolve, the faculty must be informed and prepared to be responsive to change (Frankel et al., 2020). By training the faculty, they can then step into the virtual classroom designed, thus improving their confidence and competency, which will enhance the teaching experience.

### **Theme 3. Design And Delivery of Short Courses Through a Learning Management System**

Because of the rapid shift from face-to-face to online instruction, educational institutions were forced to develop short courses delivered using a learning management system (LMS). According to the findings of the synthesis, online learning was carried out via video conferencing to replace face-to-face meetings, discussions, tests, and learning feedback via supporting applications. The Internet provided direct assistance. The majority of the learning that has taken place has yielded considerable results; nevertheless, the quality of the learning outcomes cannot be determined. There are numerous difficulties encountered during learning; this implies that the educational industry is not yet fully prepared to transition from face-to-face learning to online learning without face-to-face interaction. To avoid negative effects and pay attention to the socio-emotional side, a standard platform for online learning and learning guidelines are required (Nasution et al., 2021). Thus,

Swaminathan et al. (2021) discovered that an online faculty development program increased faculty members' perceived skills in online education using various digital media throughout the pandemic. Mulla et al. (2020) also aided with the conversion of course materials to eLearning forms by providing instructions and instructional videos on how to use the LMS and how to create and upload learning materials and quizzes, culminating in the creation of a high-quality eLearning program.

According to Saboowala and Mishra (2021), advances in information technology (IT), such as web applications, mobile devices, and telecommunications, have inevitably influenced the design and delivery of the educational curriculum. Although the transition from classroom to online learning has not yet been fully implemented in classrooms, the post-pandemic implementation of the blended learning approach will undoubtedly aid in improving the learning delivery environment for lecturers and teachers who will be treated as learners while participating in various training programs. Favre et al. (2021) went on to say that universities should create research-based faculty development interventions and invest in long-term programming.

According to Yilmaz et al. (2020), faculty development programs should incorporate video streaming, podcasting, website creation, and possibly app development when developing their programming. To fulfil the needs of the present, faculty development must evolve and change. Faculty development approaches will be matched with future faculty members' daily technology use habits as they become more conversant with technology.

### **Theme 4. Online Teaching Pedagogy**

Online teaching pedagogy refers to the way teachers conduct lessons in a virtual classroom, and it comprises the methods adopted to deliver course content and achieve lesson objectives (Ashley, 2021). In recent years, this has been gradually increasing, and changes in education delivery methods have been swift and transformative across the globe due to the convergence of new technologies, widespread use of internet technology, and the Covid-19 pandemic.

Teachers have several difficulties when it comes to teaching online, including being acquainted with the online environment, giving prompt answers and comments, and making effective use of the medium. On the other hand, online teaching pedagogy encourages instructors to become more involved in their student's learning and get more acquainted with the technology. This allows teachers to experiment with techniques only available in online environments.

The online teaching pedagogy is a method of effective teaching practice developed explicitly for teaching via the internet (Balasubramanian, 2020). A set of approaches, strategies, and procedures for teaching academic subjects in an online environment where students and teachers are not physically present. The following online teaching practices and instructional methods were observed in the included studies: flipped learning (Yilmaz et al. 2021), remote instruction (Hodges et al., 2021), adoption to virtual learning (Young et al., 2021), online interactive learning activities (Paton et al., 2020), virtual training (Liberatore & Lepek, 2021), utilizing spaced education (Yilmaz et al., 2021), and asynchronous and synchronous online learning environment (Ayhan, 2021). When an online environment supports and encourages inquiry, it broadens the learner's experience of the subject matter and perspectives, according to (Kim & Bonk, 2006).

### **Theme 5. Evaluation and Feedback**

Evaluation and feedback help to build any program and assess its success and improve its effectiveness. It serves as a monitoring tool to review the progress of activity from time to time. It also provides information on the design and implementation of the program.

In making an evaluation and feedback, it must come from a genuine interest in the growth and development of the trainee (McCutcheon & Duchemin, 2020). They discovered that evaluating and offering feedback on trainee abilities can help to improve the supervisor-learner relationship. According to feedback theory, when feedback is given directly, some learners become defensive, and the feedback becomes ineffective (Buckingham & Goodall, 2019). They proposed that supervisors should begin with trainee self-assessment to overcome

this obstacle so that they may better assess a trainee's level of insight.

Faculty need to recognize the importance of making evaluations and feedback as well as the barriers to it. This faculty development can include developing skills and techniques in giving assertive, descriptive, specific, timely and respectful evaluation and feedback. This can not only improve the faculty but also develop in the students "reflective and self-evaluative ability because, upon receiving feedback, the student must judge about his/her performance and discover how to incorporate suggested new practices to improve it in the future" (Montes et al., 2019:664).

Faculty must understand the value of evaluation and feedback, as well as the obstacles to doing so. Faculty development might include the development of aggressive, detailed, specific, timely, and courteous evaluation and feedback abilities and procedures. This can benefit the faculty and the students' reflective and self-evaluative skills since the student must appraise their performance after getting feedback and figure out how to adopt proposed new practices to better it in the future (Montes et al., 2019).

### **Theme 6. Faculty Support Network**

The traditional norm of instructional delivery has been dramatically challenged and affected by the Covid-19 pandemic. The shift from the conventional four-walled classroom to the borderless and unbounded classroom is something that nobody had foreseen to occur abruptly. Preparedness of the faculty to adopt and use online learning delivery modalities is one of the areas that teachers were lacking (Brooks et al., 2021). In their study, the faculty shared that if they were given enough time to transition to the online modality, they could have planned how to design the curriculum to maintain high-quality student interaction, communication and balancing the challenges faced with working from home.

According to the findings of Saeed's study (2021), academic institution assistance for teachers in COVID-19 can play a significant role in improving the quality of teaching in this pandemic. The teachers that get support from the institutions in learning new technologies for online learning delivery show a better way of

teaching and learning. The colleagues can also play an essential role in the support system for the faculty during this time. They can guide each other in making their online teaching and learning processes better by sharing knowledge, experiences and techniques (Barksdale et al., 2011).

### **Theme 7. Student Support**

In instructional processes, learners are given a lot of attention. They are the primary reason why every detail in the educational process must be meticulously planned. Teachers must remember the well-being of their students as they develop in the delivery of both synchronous and asynchronous lessons. The training of teachers on how to provide student support is an essential part of a faculty development program. According to Quinco-Cadosales et al. (2021), teachers faced challenges such as managing the virtual classroom, preparing for assessment, choosing online pedagogy, preparing online lessons, navigating the Learning Management System, using educational materials, and collaborating with parents and students during the COVID - 19 pandemic. If these issues are not addressed, it will be challenging to provide support to students.

Students were favorable with the delivery of emergency remote education, according to Farnell et al. (2021). According to the survey results, a large number of students had severe learning difficulties. Almost half of all students thought their academic performance had deteriorated since on-site classes were eliminated. More than half of those polled said their workload had increased since the switch to online instruction. For some students, access to online communication tools and the internet and their degree of digital abilities remains a difficulty. Finally, studying during the COVID-19 pandemic posed new obstacles to students' psychological and emotional well-being, with students frequently experiencing negative emotions like boredom, worry, frustration, and anger. As Odeh & Keshta (2021) found in their study that the closure of schools affected the co-curricular activities that may help maintain the well-being of the students.

The quality of student support provided to the students helped them manage the challenges they experienced about their learning. Once support is

offered to the students, the greater chances they will perform better in their studies.

### **Meta-Theme: Dimensions of Faculty Development Program During Covid-19 Pandemic**

The abrupt move from face-to-face classroom interactions to online engagements has unsettled stakeholders involved in learners' education at all levels. Almost all schools are unprepared to deal with the issues that the global health crisis has posed. As a result, numerous measures were taken to address the requirements of the current situation. Various faculty development programs were implemented to help learning institutions thrive as the COVID-19 Pandemic spread worldwide.

The faculty development program adopted by learning institutions during the COVID - 19 pandemic centers on implementing a learning continuity plan; training; design and delivery of short courses through a learning management system; online teaching pedagogy; evaluation and feedback; faculty networks; and student support. These emergent themes constitute the dimensions of a faculty development program.

### **4 CONCLUSION**

During the COVID - 19 pandemic, teachers are regarded as frontline educators in the instruction of students. Various faculty development programs have been created to suit the pressing needs of the new reality due to the abrupt shift in the delivery of distant learning. Faculty development is a crucial aspect of any learning institution's learning continuity plan, with training focusing on how to use a learning management system to enhance online teaching pedagogy and evaluate student learning and provide feedback for continual improvement. In addition, in a faculty development program, faculty support networks and student support are considered significant. As a result, it is suggested that these dimensions be considered while developing a faculty development program, especially when face-to-face interaction is not feasible.

### **5 REFERENCES**



- [1] Alqoot, A. R. M. (2021). Professional development of the performance of faculty members in the field of dealing with entrepreneurship distance learning platforms in light of the Corona pandemic (Covid-19) suggested framework. *Journal of Entrepreneurship Education*, 24(3), 1-23. <https://www.proquest.com/scholarly-journals/professional-development-performance-faculty/docview/2513614268/se-2?accountid=190478>
- [2] Ashley (2021). Online teaching pedagogies to teach online effectively. Retrieved 10 September 2021 from <https://blog.heyhi.sg/online-teaching-pedagogy-teach-effectively/>
- [3] Baker, V. L., & Lutz, C. (2021). Faculty development dost COVID-19: A cross-Atlantic conversation and call to action. *Journal of the Professoriate*, 12(1).
- [4] Balasubramanian, A.. (2020). Pedagogy for online teaching. DOI 10.13140/RG.2.2.32852.63368.
- [5] Barksdale, D. et al. (2011). Faculty development: Doing more with less. *The Journal of Continuing Education in Nursing*, 42(12), 537-544. <http://dx.doi.org/10.3928/00220124-20110301-01>
- [6] Boklage, A., Carbonell, R. M., & Borrego, M. J. (2021). Lessons learned making shifts: faculty development shifts in a university makerspace during the COVID-19 pandemic. ASEE Virtual Annual Conference Content Access.
- [7] Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3:2, 77-101, DOI: 10.1191/1478088706qp063oa
- [8] Brooks, J. V., Cox, G. G., Averett, E., & Hughes, D. (2021). Teaching during the COVID- 19 pandemic: MHSA faculty experiences. *The Journal of Health Administration Education*, 38(1), 265-284. Retrieved from <https://www.proquest.com/scholarly-journals/teaching-during-covid-19-pandemic-mhsa-faculty/docview/2535620354/se-2?accountid=28547>
- [9] Buckingham M, Goodall A. (2019) . Why feedback rarely does, what it's meant to?. *Harvard Business Review*. Available from: <https://hbr.org/2019/03/the-feedback-fallacy>.
- [10] Cadosales, M. N. Q., Cabanilla, A. B., & Beltran, N. Y. (2020). Kakugi ko, kalambuan mo (KKK Mo) as an extension program for day care workers: An impact study. *Recoletos Multidisciplinary Research Journal*, 8(2), 107 – 119. DOI: <https://doi.org/10.32871/rmrj2008.02.08>.
- [11] Cadosales, M. N. Q., Cabanilla, A. B., Elcullada, R. O., Lacea, R. L. & Beltran, N. Y. (2021). A meta-synthesis on the potential effectiveness of a teaching internship program. *Turkish Online Journal of Qualitative Inquiry (TOJQI)*, 12(6), 8955 – 8965.
- [12] Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The Psychologist*, 26(2).
- [13] Farnell, T.; Matijević, A.S.; & Schmidt, N. S. (2021). The impact of COVID-19 on higher education: a review of emerging evidence. European Union. Publications Office of the European Union. <https://doi:10.2766/069216>.
- [14] Favre, D.E., Bach, D. and Wheeler, L.B. (2021). Measuring institutional transformation: a multifaceted assessment of a new faculty development program. *Journal of Research in Innovative Teaching & Learning*. <https://doi.org/10.1108/JRIT-04-2020-0023>.
- [15] Frankel, A. S., Friedman, L., Mansell, J., & Ibrahim, J. K. (2020). Steps towards success: Faculty training to support online student learning. *The Journal of Faculty Development*, 34(2), 23-32. Available <https://www.proquest.com/scholarly-journals/steps-towards-success-faculty-training-support/docview/2478112391/se-2?accountid=28547>
- [16] Goldsmith, C. (2021). Navigating pandemic teaching via individualized faculty professional development. *International Journal of Multidisciplinary Perspectives in Higher Education*, 6(1), 135-141.
- [17] Harzing, A. W. (2007). Publish or perish software. Available

- <https://harzing.com/resources/publish-or-perish>.
- [18] Hodges, L. C., Harrison, J. M., Kephart, K., Swatski, S., & Williams, T. H. (2020). Supporting academic continuity by building community. *Journal on Centers for Teaching and Learning*, 12.
  - [19] Hollander, A., Vavasseur, C. B., & Robicheaux, H. (2020). A service-learning approach for faculty development focused on remote delivery of courses during a pandemic. *Journal of Service-Learning in Higher Education*, 11(2), 30-44.
  - [20] Kalynych, C., Edwards, L., West, D., Snodgrass, C., & Zenni, E. (2021). Tuesdays are great for teaching tips: A spaced education strategy for faculty development. *Journal of Graduate Medical Education*, 13(3), 434-435.
  - [21] Kim, K. J., & Bonk, C. J. (2006). The future of online teaching and learning in higher education. *Educause Quarterly*, 29(4), 22-30.
  - [22] Kleisch, E., Sloan, A., & Melvin, E. (2017). Using a faculty training and development model to prepare faculty to facilitate an adaptive learning online classroom designed for adult learners. *Journal of Higher Education Theory and Practice*, 17(7), 87-95. Available <https://www.proquest.com/scholarly-journals/using-faculty-training-development-model-prepare/docview/1985639276/se-2?accountid=28547>
  - [23] Lachal J, Revah-Levy A, Orri M and Moro MR (2017) Metasynthesis: An original method to synthesize qualitative literature in psychiatry. *Front Psychiatry* 8, 269. <http://doi: 10.3389/fpsy.2017.00269>.
  - [24] Liberatore, M. W., & Lepek, D. (2021). Establishing virtual communities of practice to support chemical engineering faculty development during the COVID-19 pandemic. ASEE Virtual Annual Conference Content Access.
  - [25] McCutcheon, S., & Duchemin, A. (2020). Overcoming barriers to effective feedback: A solution-focused faculty development approach. *International Journal of Medical Education*, 11, 230-232. <http://dx.doi.org/10.5116/ijme.5f7c.3157>.
  - [26] Meline, T. (2006). Selecting studies for systemic review: Inclusion and exclusion criteria. *Contemporary issues in communication science and disorders*, 33(Spring), 21-27.
  - [27] Montes, L. d. G., Rodrigues, C. I. S., & de Azevedo, G. R. (2019). Assessment of feedback for the teaching of nursing practice. *Revista Brasileira De Enfermagem*, 72(3), 663-670. <http://dx.doi.org/10.1590/0034-7167-2018-0539>
  - [28] Mulla, Z. D., Osland-Paton, V., Rodriguez, M. A., Vazquez, E., & Plavsic, S. K. (2020). Novel coronavirus, novel faculty development programs: rapid transition to eLearning during the pandemic. *Journal of Perinatal Medicine*, 48(5), 446-449.
  - [29] Murray, M. C., & Pérez, J. (2015). Informing and performing: A study comparing adaptive learning to traditional learning. *Informing Science*, 18, 111-125. <http://doi.org/10.28945/2165>.
  - [30] Nasution, A. K. P., Nasution, M. K., Batubara, M. H., & I. (2021). *International Journal of Evaluation and Research in Education (IJERE)*, 11(2). <http://doi.org/10.11591/ijere.v11i2.21917>
  - [31] Ndayimirije, M. I., & Bigawa, R. N. (2020). Rethinking the Role of Research in Pre-service Training of Teachers of English as a Foreign Language: Case of the University Teacher-Training College in Burundi. In *Second Language Acquisition-Pedagogies, Practices and Perspectives*. IntechOpen.
  - [32] Odeh, A. & Keshta, I. (2021). Impact of COVID – 19 pandemic on education: Moving towards e-learning paradigm. *International Journal of Evaluation and Research in Education (IJERE)*, 11(2). <http://doi.org/10.11591/ijere.v11i2.21945>
  - [33] Page M.J., McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71
  - [34] Quinco-Cadosales, M. N.; Ejercito, F. J.; Eguico, I. E., & Quinco, D. F. (2021). Schools in the new reality: assessing the now,

- leading beyond. *Psychology and Education*, 58(5): 5718-5730.
- [35] Quinco-Cadosales, M. N. (2017). Training Framework for Teachers. *Asian Academic Research Journal of Social Science & Humanities*. 4(3), 265 -285.
- [36] Saboowala, R. & Mishra, P. M. (2021). Readiness of in-service teachers toward a blended learning approach as a learning pedagogy in the post-COVID-19 era. *Journal of Educational Technology Systems*, 50(1), 9-23.  
<http://doi.org/10.1177/00472395211015232>.
- [37] Saeed, A., Habib, R., Zaffar, M., Khurram, S. Q., Altaf, O., Irfan, M., . . . Almushayti, Z. (2021). Analyzing the features affecting the performance of teachers during covid-19: A multilevel feature selection. *Electronics*, 10(14), 1673.  
<http://dx.doi.org/10.3390/electronics10141673>
- [38] Strawser, M. G., & Smith, S. (2020). Introduction to the special section: Faculty development for the new professoriate: Onboarding, engaging, and training new faculty. *The Journal of Faculty Development*, 34(2), 44-45. Retrieved from <https://www.proquest.com/scholarly-journals/introduction-special-section-faculty-development/docview/2478110667/se-2?accountid=28547>
- [39] Swaminathan, N., Govindharaj, P., Jagadeesh, N. S., & Ravichandran, L. (2021). Evaluating the effectiveness of an online faculty development programme for nurse educators about remote teaching during COVID-19. *Journal of Taibah University Medical Sciences*, 16(2), 268-273.
- [40] Virant-Young, D. L., Purcell, J., Moutsios, S., & Iobst, W. F. (2021). Practice makes better: Effective faculty educator skill development in the virtual space. *J Grad Med Educ*; 13(2): 303-308.
- [41] Yilmaz, Y., Lal, S., Tong, X.C. et al. (2020). Technology-enhanced faculty development: Future trends and possibilities for health sciences education. *Med.Sci.Educ.* 30, 1787–1796.  
<http://doi.org/10.1007/s40670-020-01100-1>.
- [42] Yılmaz, Y., Çalışkan, S. A., Darcan, Ş., & Darendeliler, F. (2021). Flipped learning in faculty development programs: opportunities for greater faculty engagement, self-learning, collaboration and discussion. *Turkish Journal of Biochemistry*. <http://doi:10.1515/tjb-2021-0071>