Preparedness for higher education: What does it mean for today and tomorrow?

Faculty development to design effective online courses: Responding to requirements

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Abstract: Since the pandemic, the importance of faculty development has been taken much more attention and has gone from being an 'expectation' to a 'requirement'. Therefore, universities have started to step toward faculty development, which is also necessary. A wide variety of professional learning activities has been

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used for faculty development purposes in universities, but the research examining its effectiveness is limited. Our goal is to investigate the experiences of faculty from diverse backgrounds regarding technology-based, high-quality professional development programs in terms of their effectiveness. The faculty working at a foundation university participated in high-quality professional development programmes implemented in this study. The data were collected through focus group interviews. Using a qualitative methodology, we have found that faculty improved their knowledge and skills in designing and teaching online courses, with some faculty even reporting active use of what they have learned in their class and finding it valuable and effective. Program features such as feedback, facilitation, and best examples are helpful for having faculty grow pedagogically. The faculty has demonstrated that they can participate in learning activities that are meaningful to them in their daily lives. For the professional development programmes designed for the faculty to be effective in future studies, it is recommended that the programmes should be designed in a meaningful way for the faculty.

Keywords: Faculty development program; centre of excellence; online teaching; online instructional design; professional development in higher education.

I. Introduction

After receiving their doctorate, faculty members at the university level become competent in their fields of expertise. However, a faculty member may not have the essential skills to be a fully competent instructor (Persellin and Goodrick 2010). Few are trained on how to teach, design effective instruction, facilitate student learning, or assess learning outcomes.

Instructional quality and student success are well-known as being among universities' quality criteria for securing jobs and gaining tenure (Stupnisky et al. 2018). Universities are well aware that the faculty are a key to success in higher education and expect them to have the essential qualifications and attend professional development (PD) to gain various pedagogical competencies (Shankar, Gowtham, and Surekha 2020). Since the pandemic, the importance of faculty development has received much more attention and it is now more than expectation but also a requirement (Hodges et al. 2020). A wide variety of professional development activities such as teaching excellence centres (Mazı, Kırkıç, and Gürdağ 2022) virtual work labs (Boutelier et al. 2020), one-on-one consultations (McKee and Tew 2013), online courses (Bragg, Walsh, and Heyeres 2021; Hollander, Vavasseur, and Robicheaux 2020), and fellowship models (Welch and Plaxton-Moore 2017) are used for faculty development purposes in universities, and these have expanded since the pandemic.

Supporting faculty with a variety of professional development opportunities have positive outcomes for students to gain the skills needed to

learn better and for the permanence of the gains they have achieved (Levesque-Bristol et al. 2019). As Pascarella and Blaich (2013) demonstrated, effective teaching through faculty development increases college students' achievement levels. Students who have the opportunity to study in student-centred classrooms can create higher quality products. In addition to having higher self-efficacy and better attendance rates, students exposed to the student-centred teaching processes are also competent at transferring the knowledge and skills they have gained to new learning environments (Hoyert and O'Dell 2019). The faculty also gain advantages. In Richter and Idleman's (2017) study, faculty who were trained to teach online courses had higher teaching self-efficacy. Roman, Kelsey, and Lin (2010) also echoed similar findings, with faculty improving both technological and pedagogical skills through a six-week intensive faculty development course.

Workshops, seminars and workshops should be designed by higher education institutions to enable academics to become techno-pedagogues rather than ensuring that they are competent pedagogues. However, the current situation also has components that hinder academician technical skills and technical integration (Asad et al. 2012, 9-10). In addition, the use of ICT-related tools in education is one of the obstacles that academics will encounter in the new learning environments they enter. The use of tools requires academic staff and teacher educators to interact with potentially new learning environments and increases the complexity encountered (Rienties et al. 2013, 481). In order to eliminate these obstacles, it is necessary to add 'understanding of technological teaching knowledge (TPACK) and reasonable use of ICT for teaching and learning subjects' to PD programs (Fernández-Batanero et al, 2022, 526).Because the TPACK framework allows them to look at a complex phenomenon such as technology integration from different perspectives in professional development processes. Moreover, rather than simply treating technology as an "add-on" in professional development processes, the TPACK approach allows students to focus on the connections between technology, content, and pedagogy from a holistic perspective effectively and efficiently in classroom teaching (Koehler and Mishra, 2009, 67).

By considering the importance of faculty development and the effect of emerging innovative models of training faculty members, this study reports on a faculty development program aimed to improve their skills in order to design effective instruction. As universities create more opportunities for faculty and establish learning centres to support teaching excellence, importance is had in knowing whether or not these efforts have come to fruition. Creating a well-developed course at either the graduate or undergraduate level takes time and effort as well as expertise and support that go beyond writing a syllabus or

meeting students in synchronous sessions (Walsh et al. 2021). What faculty experience as they transform their teaching to a better modality needs to be understood. This information will help in planning future faculty development. As more is known about how teachers react to faculty development, professional efforts will be able to better address the challenges.

The growing market of technologies and educational apps has made allowed teaching to occur anywhere and anytime. The new generation of students are really familiar with these tools and know how to interact well in online environments. They expect to take responsibility for their own learning (Stout 2021). Faculty who have not experienced online design and teaching might experience difficulties, and university instruction might drop in quality. Teaching as a duty of faculty continues to evolve with almost daily advancements. Consideration must be given to preparing faculty to teach with innovative technologies and to design learning environments that fit students' needs (Leslie, Lizardo, and Kovacs 2021).

Moreover, just as courses are being digitized, faculty development will also continue to be implemented using digital tools in higher education (Alexander 2020). How faculty respond to more technology-based learning experiences remains unknown territory. Our study can shed more light on the matter in terms of how faculty from diverse backgrounds with different teaching responsibilities design their own online courses. We also need to address faculty concerns regarding online teaching. Most faculty believe that teaching an online course is demanding and that they don't have enough support to handle the related problems (Allen and Seaman 2009). Another point they often make is that in-person classes are always better and more effective (Jaschick and Lederman 2018). However, research results exist that show otherwise. For example, in Mandernach and Holbeck's (2016) study, faculty start to spend less time designing their courses after training because they feel comfortable enough to teach using technology and online learning methods in their practice. Therefore, faculty need support and structured experiences to prepare for online teaching, and this can be accomplished through faculty development programs.

II. Our faculty professional development program

Initially, we conducted a needs analysis to determine what the faculty members need for their professional development during the 2021 spring semester. Our analysis revealed measurement and evaluation approaches in online learning, innovative instructional strategies, course material development, technology use/integration, and online course design to be among the main content areas needing to be addressed.

We used effective professional learning theories and research results (Darling-Hammond, Hyler, and Gardner 2017), the Quality Matters (QM) rubric standards of online course design (Quality Matters 2020; Shattuck 2015), and online adult learning principles (Bragg, Walsh, and Heyeres 2021; Dede et al. 2009) to design the program. Our program is also closely aligned with recent systematic approaches to professional faculty development that are offered and studied for online teaching training and support (e.g., Ibrahim et al. 2020) which provide positive outcomes in higher education in terms of improvements in teaching. Because we have participants from various disciplines, from business to nursing and world languages, we also used Baran and Correia's (2014) framework for assessing online teaching with a focus on teaching, community, and organization. For teaching, we provided content, pedagogy, technology, and various combinations of each. For the community, we supported the groups with a facilitator for feedback and guidance, in addition to posts in the learning management system. For organizational support, we used sample plans/templates, worked examples, and university-recognized awards/badges. We integrated all frameworks and theoretical backgrounds to provide an intensive, three-week training program followed by group support sessions with facilitators.

Our program is characterized by active participation, hands-on design opportunities, and expert facilitation consisting of six synchronous courses (2 hours each), asynchronous activities that include 10 interactive videos (in Playposit) and five interactive reading assignments (in Perusall), two live design workshops, and three individual assignments that require the faculty to integrate their learning (i.e., designing a formative assessment), as well as four reflection diaries (see Figure 1). All activities were completed using Microsoft Teams. The content and detailed activities are outlined in the Appendix.
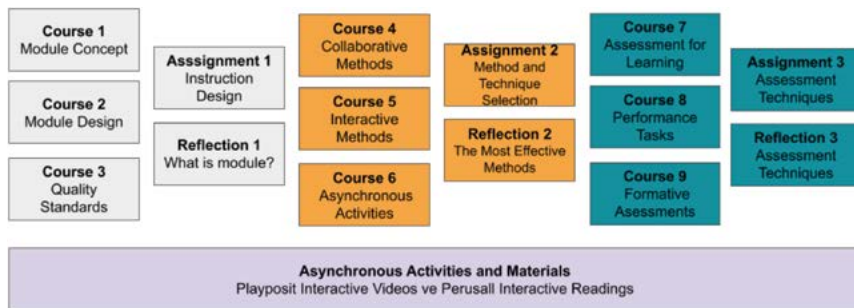

Figure 1

The outline of the PD program

III. Purpose and research question

The present study aims to examine faculty members' experiences in terms of PD outcomes. The participants never had any previous PD experiences to learn about online course design, but they were assigned to teach online in the following semester. The following research question guided our study: Can an online faculty development training provide faculty members with the skills and knowledge essential for design online courses?

IV. Method

We used a qualitative case study design (Yin, 2017) to examine faculty members' experiences, with the focus of the research being the program itself.

IV.1. Sample of the study

The participants are 50 faculty members employed in various faculties of a private university. During the program, we assigned tasks and asked all participants to make entries in their reflection diaries at the end of each week. We excluded faculty members who did not fulfil their task and who were unable to attend consecutive sessions and see the new content. The last live session had 16 faculty members who completed all of their tasks and assignments.

IV.2. Data sources

To acquire a better understanding of how the program affects faculty members' learning, we used reflection diaries, focus group interviews, and document analysis. Therefore, multiple measures (triangulation; Miles and Huberman, 1994) were used to provide an overview of the faculty members' experiences. Firstly, we designed reflection diaries that allowed the faculty members to reflect on the program and included five open-ended questions (e.g., What goal do you want to realize with the knowledge or skills you have learned in this module?). All faculty members filled out the reflection diaries after the live sessions in each module. We asked the participants to upload their reflection diaries to our learning management system (LMS).

Secondly, documents such as individual assignments (responses to prompts) and module plans (e.g., blueprints) were the main outputs of the programs that were developed each week. All documents were collected and

included in the research with the faculty members' permission. The documents in particular were used to monitor the progress and changes regarding the faculty members' knowledge and skills as well as to support the focus group interviews. They uploaded all assignments in our LMS.

Lastly, our main data sources were the focus group interviews. In order to examine the similarities and differences between the experiences of faculty members, we formed focus groups with people working in similar fields. We formed four different focus groups from the 16 people who completed the PD program and grouped them according to their disciplines. Each focus group included four faculty members from the Colleges of Health Sciences and Nursing, the College of World Languages, the College of Education, and the College of Humanities. The interview protocol included 12 questions, and the form was finalized based on the feedback of two experts specialized in curriculum, instruction, online learning, and professional development. We conducted all interviews online and the focus interview lasted approximately one and a half hours. All of the interviews were conducted just after the program with the goal of determining the faculty members' perspectives/views regarding the program and its structure (e.g., activities, learning opportunities) and their awareness of developments regarding design skills. For instance, the faculty members were asked whether the program had met their expectations, whether it had contributed to their design skills, and what suggestions they had about further developing the program.

IV.3. Data analysis

We analysed our data in three phases according to Braun and Clarke's (2006) framework. In the first phase, we created a dataset containing the documents, reflection diaries, and interviews for each faculty member. The second and fourth researchers organized and classified all the data collected. In the second phase, all the data were coded deductively due to our focus on self-reported experiences in terms of changes in knowledge, skills, and perspectives. We initially created a code list from the literature reflecting the possible outcomes that could be achieved as a result of PD with a focus on developing online design skills. We coded all data sources in line with this code list. We inductively coded when we noticed data outside of this code list. This was particularly evident when analysing opinions about the effective components of PD. Therefore, we added new codes to our original code list and then recorded all the data using the new code list. We worked manually on Excel while coding.
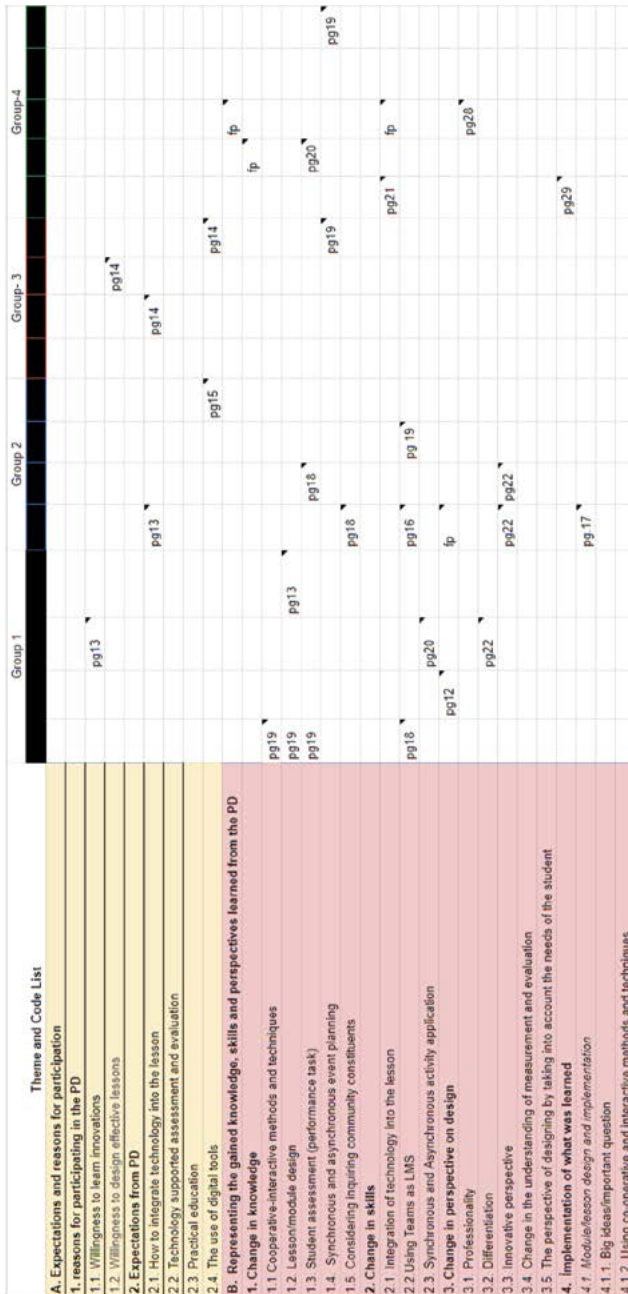
Figure 2
An example for coding process in data analysis

In the third phase, we defined similar categories and themes based on these codes in terms of an effect or result of the PD, with the themes being strongly associated with the data as suggested by Patton (1990). In total, we obtained three major categories: reasons for and expectations from attending the PD program, the gained knowledge, skills and perspectives, and effective elements of the PD program. The first category was divided into two sub-themes as expectations and reasons for participation. The second category, representing the gained knowledge, skills and perspectives learned from the PD, included four separate themes: change in knowledge, change in skills, change in perspective on design, and implementation of what was learned. The last category focused on the strengths and areas for improvement of the PD we designed and implemented.

In summary, when a faculty member stated having learned something new about the use of a technology or offered a new asynchronous activity, we coded it as learned knowledge. When we observed changes in perceived or intentional behaviour through such statements as "I used to conduct only synchronous lessons but now I integrate them with asynchronous activities" or "I tended to use LMS more, now I do things differently," we coded them as changes in design skills. When they made a comparison between old and new design habits, we acknowledged them as a change in design beliefs/perspectives. The second researcher analysed all the qualitative data then discussed and reviewed them together with the fourth researcher.

IV.4. *Validity, trustworthiness, and role of researchers*

To enhance the validity and trustworthiness of the study, we used several techniques including in-depth data collection, triangulation, peer debriefing, and member-checking by considering the framework of Lincoln and Guba (1985). First, we employed data triangulation (i.e., focus group interviews, reflections, and assignments from the faculty members) to acquire in-depth data for research question. Second, we recorded each focus interview to confirm the accuracy of the data and shared these in Microsoft Teams. In this way, we ensured transparency by taking into account their access to interview records and transcripts. For member checking, we also stated that they have the right to make changes wherever they want. For peer debriefing, the fourth researcher then reviewed the analysis the second researcher had performed. All decisions at each step of the analysis were discussed with and validated by the fourth researcher, who also checked the findings from the interviews, the reflections, and the documents in terms of accuracy. Finally, the interview results were illustrated using representative quotes from the faculty in order

to underline the trustworthiness of the study. We used pseudonyms to conceal the identities of all participants.

Three of the researchers (second, third, and fourth researchers) in this study were not only the trainers (PD providers) but also the designers of the program. As designers, we explored theories and approaches for improving the faculty members' design skills as well as professional/faculty development in higher education. As trainers, we served as experts and facilitators for the faculty members, conducted the live sessions, followed their asynchronous activities, and gave them feedback. As a result, we have defined ourselves as outsiders (Dwyer and Buckle 2009) and as qualitative researchers who analyze data in research and are accustomed to understanding the context of faculty members. Finally, we did our best to address concerns about external validity by thoroughly specifying the study design, the participants, the data sources, the analyses, and the interpretations.

V. Findings

V.1. *Reasons and expectations for participating in the program*

The main reason for participating in the program was to learn how to overcome the difficulties they had experienced in online course design and teaching. The faculty members stated that they had experienced difficulties due to being unable to maintain students' active participation in their online classes. They felt incompetent using online teaching strategies and didn't know how to integrate technology into the design and teaching. Based on their expectations, we found that they expected to learn how to integrate technology into their course and learn new methods for technology-assisted measurement and assessment, how to design effective courses, and how to use digital tools. Two quotes below illustrate the motivation behind their participation:

> I wonder how we can adapt technology to education and how it benefits the student. In other words, we used to use it in the traditional presentations in Microsoft Teams, but I attended the program with the expectation that it would make a difference for us in the classes where various technologies are used [Melih, Health Sciences, Interview].

> During this [pandemic] period, I tried to investigate using some keywords such as what distance education strategies are there and how should they occur. However, maybe due to my laziness or I used the wrong keywords and concepts, I could not find more. That was why this program was exactly right for me. We can learn something by watching videos on the

Internet, but the important thing is that we should pay more attention to course design [Nedim, Education, Interview].

In summary, we can say that the faculty members participated in the program in order to be able to learn online course design and cope with the difficulties they experienced when teaching, especially during the pandemic period. In addition to the difficulties described above, faculty members stated that they were unable to design in accordance with the nature of the course during the pandemic (Kenan, Education), that they experienced difficulties in online assessment and evaluation (Özge and Masal, Islamic Sciences) and lacked experience with distance education (Kenan, Education). These challenges were the primary motivations for learning online course design and effective instructional design and the reasons that led them to participate in the program.

Based on the findings presented, the faculty members' engagement in our PD program was fundamentally driven by their need to adapt to the challenges of online education, which were particularly highlighted during the pandemic period. This adaptation involves mastering digital tools and learning effective online course design and teaching strategies. Their experiences reveal a significant gap in preparation for digital education and highlight the importance of professional development programs to equip educators with the skills and knowledge necessary for the evolving educational landscape.

As illustrated by their statements, the faculty members' motivations reflect a broader need within the education sector for training that goes beyond traditional teaching methods. This need is amplified in the context of unexpected transitions to online learning environments, such as those experienced during the pandemic. Faculty expectations of the program - to learn new methods of technology-enhanced measurement, assessment, and course design - indicate a desire for deeper integration of technology in education.

V.2. *Gained knowledge, skills, and perspectives*

Based on the focus group interviews, the reflection diaries, the documents, we found two areas that improved after the program: (1) improved knowledge and skills of instructional design and (2) changes in beliefs about instructional design.

Within the scope of the online module design, the faculty members first stated that they had learned what modules are and how to design them. Second, we found that they learned teaching methods that focus on

collaboration and interaction as well as how to design synchronous and asynchronous activities. For example, Dila from the College of Health Sciences stated that she had always taught with synchronous sessions before the program and expressed how the program also has contributed to her current skills in designing asynchronous activities:

> We always used TEAMS in our synchronous courses and simultaneously communicated with the students. After the training, I think our knowledge on asynchronous activities has improved. We learned better how to use TEAMs for asynchronous activities. [Dila, Health Sciences, Interview].

To validate Dila's response, we looked at her module design presented in Figure 3.

Day/Lesson and Time	Activity
Monday asynchronous Warm-up	Learners will be asked to bring "an object that represents birth for you" to the lesson with the announcement made by the teams team on the basis of the asynchronous activity created before they come to the lesson.
Entry Activity 4 min	A short video will be shared, the content of which includes the prenatal, birth and postnatal period and reflects those feelings, and will allow students to feel these processes as emotions.
Discussion 6 min	By asking the question of "Do you think the prenatal period, the moment of birth, or the postpartum period is more important?", Mentimeter assessment will be made and the percentage of opinions will be determined. They will be expected to think and respond based on the issue of women's health.
Group Working 30 min Discussion 30 min	The groups formed in line with the views will gather in the general channel after the group work and a debate will be held by supporting their ideas with literature that will defend their views. In the debate, peer evaluation and instructor evaluation will be calculated at the rate of 50%.
30 min	Lecturing
10 min	Objects brought with asynchronous preparation are shared, the opinions and predictions of other learners are taken, and the comment of the person who brings the brainstorming about the connection of the object with birth is listened.
30 min	Lecturing
15 min	Assessment via Kahoot or Quiziz
asynchronous assignment	One of the skill targets will be determined by a wheel created with the wheel of names, and the student will be asked to take a video of the skill target that appears on the wheel. For example, if the fundus massage came out on the wheel, the student will apply the fundus massage with the material they want, in the environment they want, take a video, and then upload it to the homework tab created in the virtual classroom. Evaluation criteria will be shared with the student along with the homework instruction.

Figure 3
Dila's Module Outline

As seen in Dila's module outline, she now designs her online courses by taking into account a balance of synchronous and asynchronous.

Furthermore, the participants learned how to integrate formative assessment techniques and the concept of assessment for learning. Specifically, Kübra, from the College of Education, also explained how her perspective had changed:

Before the program, I was in the group that advocated that face-to-face and distance education could be measured and evaluated with the same methods. However, I learned the differences due to the very important concept of assessment for learning. I learned how to monitor the asynchronous and synchronous assignments in online education, their percentiles, the outputs of performance tasks, and more. In short, I learned what we can do to assess the students [Kübra, Education, Interview].

The module Kübra designed proves how her main point of view had changed (see Figure 4).

Day/Lesson-Time	Activity
Monday, 20 min	Kahoot questions created by the teacher and questions prepared on the basic concepts of the creative drama lesson will be answered. Each student whose correct answers are revealed will be self-assessed.
Tuesday 40 min	What is creativity? And what are the stages? Straight narrative method will be told to the students using. (10 minutes) Students will develop a problem of a life in every stage of creativity within themselves. A student will be able to develop a question, and the other student will be asked to provide solutions using creative problem solving skills for the problem. (20 minutes) The stages of creating and answering the question will change for each student. Students will make a peer assessment and score the answers given over 5. Alternative solutions will be offered (10 minutes).
Wednesday 30 min	Students will produce products by working within the scope of the Performance task. The instruction of the performance task will be given. They will design a teaching method by finding a creative solution for a special student who does not understand the lesson with any method.
Wednesday 20 min	"How did this event make you feel? Can you write down how you feel about the product you created and the process?" Reflection articles with questions will be requested.
Thursday 30 min	Using Genialy, students are asked to create a presentation of what they have learned. The presentation is evaluated as relevance to the subject (25 points), writing his own thoughts about the definition of creativity (25 points), including the stages of creativity (25 points), using creative visuals and content (25 points).

Figure 4

Kübra's Module Outline

The module outline shows that Kübra's views on measurement and evaluation in the interviews had changed with the program and that she now uses process evaluation instead of classical methods. This change proves that the program has increased the faculty members' online design knowledge and skills.

Some faculty members who had a chance to implement the design they had developed during the program provided us with similar findings. They stated that the assignments and the trainers' perspectives had enabled them to prioritize the design decisions they make. They used module design principles and preferred collaborative and asynchronous methods and techniques over the more traditional teaching methods. They also provided feedback to their students after they completed a formative assessment. Some participants also reported using the new technologies and digital tools/apps during their online

teaching. From their observations of their own class, they stated that their new design and teaching habits had helped their students become more interested in learning and that some of the students had told them how they felt included in the learning process. Excerpts from two faculty members demonstrate how the program had affected their practice and teaching:

> In my last class. I employed several technology tools. I first started with entry tickets. Then the students completed short assignments. They presented what they had in the class. Then, they received feedback from me. I asked questions and allowed them to reflect on their learning. I collected all the students' views and used them for self-evaluations. Well, we did these. These had significant contributions [Melih, Health Sciences, Interview].

> At first, techniques like KWL [Know, Want-to-know, Learned] or apps like Kahoot appeared like methods for K-12 levels, not for college levels. There were times when I wondered if it would be a little too simple for our undergraduate students, but then I implemented KWL in one of my classes for a week. It really worked. The feedback I received from the students tells me that they are more interested in engaging in my class [Nilay, Health Sciences, Interview].

In the program, we observed not only changes in the knowledge and skills of the faculty members regarding module design but also changes in their beliefs about online course design. In particular, they transformed their ideas about assessment from a traditional way to a more innovative and creative way. Some of the faculty members who'd described themselves as traditionalists (who use more direct ways to teach) stated that they started assessing their students' multiple times in a session after the program. Moreover, they now believe that instruction by design should be differentiated based on student needs.

> Normally, when I design a course, I divide the semester into two or three parts to assess the students. I would assign a book for the midterm and final. But now, I can say that using multiple opportunities, such as a book assignment, a movie analysis assignment, or a travel assignment would be better for capturing what students understand [Sena, Education, Interview].

> I used to think that constant updates would be good and that things like homework and projects were important. I would prioritize the development of good material and better instruction. Now, I think we need to involve technology and, therefore, include more students in the learning process using interaction [Melih, Health Sciences, Interview].

Apart from the quotations above, the faculty members who participated in the program stated that their beliefs about design had changed and that they had gained more professionalism while designing the teaching, would

try to differentiate the teaching process, believed that time and effort should be spent in order to make an instructional design, and most importantly would consider the needs of the students while designing the teaching.

These findings indicated a significant positive impact of a faculty development program on participants' abilities and perspectives in online course design. The program enhanced knowledge and skills in instructional design, mainly by integrating synchronous and asynchronous activities, as exemplified by faculty members like Dila and Kübra. Furthermore, there was a notable shift in beliefs about instructional methods, moving from traditional approaches to more innovative and student-centered practices. This shift was evident in adopting varied assessment strategies and focusing on interactive, technology-driven teaching methods. Overall, the program not only improved the faculty's technical competencies in online course design but also let them transform their educational philosophies, leading to more engaging and effective online teaching practices.

V.3. *Effective elements of the program*

From the interviews, we found that our program had elements that were effective in improving the faculty members' pedagogical practices:

(1) Multidisciplinary audience: The first sessions had faculty members from more than 10 of the university's colleges. Toward the end, we were left with four or five different colleges. Our participants thought that having people from different backgrounds would help them think outside the box.

(2) Presenting a different perspective on design: Our sample plans and the way we facilitated the sessions were revealed as effective elements in the program. We never lectured about online learning, but we did ask open-ended questions to discuss and reflect on.

(3) Activities that improve participation in live sessions: We provided opportunities for hands-on learning. The faculty created mini activities, such as small group discussions during the synchronous sessions so that the participants are engaged.

(4) Effective feedback at every stage: Our facilitator team and the experienced trainers provided on-demand and asynchronous feedback to assignments and prompts. This created a chance to revise and improve.

(5) Focus on design skills: The program focuses on the big perspective regarding online learning design rather than on technology use.

The following are the excerpts from the faculty to illustrate the elements listed above:

> The strengths are the introduction of a new educational perspective, inclusion of field experts in education, the up-to-date nature of the approach, and emphasis on current educational needs, as well as prioritization of technology and interaction [Melih, Health Sciences, Final Reflection].

> It was valuable since it included all faculty members with an interdisciplinary approach. We could look at the events from different perspectives and learn about the different views of the teachers who instructed theoretical and practical courses during the distance education process. They shared their very creative ideas with us [Kenan, Education, Final Reflection].

Overall, the PD program's approach to presenting different perspectives on design, eschewing traditional lecturing in favor of open-ended discussions and reflections, was particularly beneficial. The hands-on activities in live sessions, such as small group discussions, enhanced participation and engagement. Additionally, providing effective feedback from the facilitator team and experienced trainers at every stage allowed participants to revise and improve their work continually. Lastly, the program's focus on design skills over mere technological use provided a more comprehensive understanding of online learning design. Testimonials from participants like Melih and Kenan emphasize the program's strengths, such as introducing new educational perspectives, an interdisciplinary approach, and an emphasis on current educational needs and technology.

VI. Discussion

Overall, our effort to support faculty succeeded in improving skills regarding online course design and a positive change in perspective toward online learning. Attending this high-quality program helped the faculty because many had never participated in a program that offers hands-on experiences and design-based activities for their online courses (Leslie 2020). First-hand experience with other faculty from the same department teaching in the same program was also beneficial. As we gave them more opportunities to work together, they created a deeper understanding of online learning (McDonald, Yanchar, and Osguthorpe 2005).

However, although it is challenging to motivate faculty to improve themselves as faculty members (Aust et al. 2015, 115), participating in a program relevant to them for the first time may have enabled faculty members to be successful due to the program. Academicians who participated in the program as students of a well-designed program in the field they need

may have approached the online course design positively. Evaluating the possible positive results of participating in such a program for the first time with new studies will reveal the effectiveness of this high-quality program more clearly.

Many of our participants had never designed an online course through a planned, structured process. Framing our online training as an online course itself provided the faculty with a fruitful learning experience as a student learning online. This approach of letting them experience it enabled them to move forward and transform their design skills to a new-and-improved level. Studies using similar training structures yielded similar positive results (e.g., Ibrahim et al. 2020). This came as no surprise because adult learners look for relevance to learn (Knowles, Holton, and Swanson, 2005). We provided an environment where they had opportunities to produce, not just consume. They created new activities and used technologies because they were assigned to teach online and felt they needed this training. They were motivated and stayed until the end of the program by completing all the required assignments.

The success of any faculty training program depends on creating a program that effectively delivers appropriate content in a supportive environment. The success of a training program provided to faculty members depends closely on a supportive environment provided to the faculty members participating in the training, the provision of appropriate content, and the effective presentation of this content in a supportive environment (Aust et al. 2015, 115). Therefore, when provided with opportunities to try, the faculty thrives. Our participants reported positive beliefs regarding online course design. One reason this was achieved might be our focus on effective instruction rather than technology usage or logistics in online learning. During the learning activities in the program, all faculty members were provided with resources for critical elements of online courses and how these elements play a role in their relationship with their students. The learning process was the focus, and they were encouraged to think more about assessment and interaction from students' perspectives. Positive learning environments have brought about positive beliefs.

The higher education institutions where they work must provide continuous support to faculty members so that they can use the training they receive after completing the programs in which online education is provided (Baran et al. 2014, 101). In particular, providing a supportive teaching environment to faculty members may have led to more positive beliefs about online learning. However, the fact that the faculty members who participated in this training willingly participated because they needed it may indicate

that they had positive beliefs about online learning and teaching before the program. In addition, it can be considered an ordinary situation that the group of instructors from whom the data were collected took the training they attended to the end and completed it, so they formed positive beliefs and had a positive perspective on online teaching, unlike the large group that existed at the beginning of the training and left it before completing the training. In future studies, in a situation where the same program is compulsorily implemented, determining the thoughts of all faculty members participating in the training about the program may reveal a different perspective on the effectiveness of the applied program.

We also used Baran and Correia's (2014) framework for assessing online teaching with a focus on teaching, community, and organization. For teaching, we provided content, pedagogy, technology, and various combinations of each. For the community, we supported the groups with a facilitator for feedback and guidance, in addition to posts in the learning management system. For organizational support, we used sample plans/templates, worked examples, and university-recognized awards/badges. We integrated all frameworks and theoretical backgrounds to provide an intensive, three-week training program followed by group support sessions with facilitators.

In addition, the participants used online teaching applied as a model by the instructors during the training by providing each of content pedagogy, technology and their different types of combinations. By showing a teacher model during the training we did not let the participants encounter the complexity of the learning environment where ICT-related tools used (Rienties et al. 2013, 481) and based on TPACK approach. Because we added 'understanding of technological teaching knowledge (TPACK) and implemented reasonable use of ICT for teaching and learning subjects' in our PD program to eliminate various obstacles (Fernández-Batanero et al. 2022, 526). In addition, we implemented TPACK approach by providing technology integration from different perspectives instead of giving technology as an "add-on" in our PD program. Therefore, participants were able to focus on the connections between technology, content, and pedagogy from a holistic perspective effectively and efficiently in classroom teaching (Koehler and Mishra 2009, 67).

The frameworks we used to design our training were conducive to our accomplishment (e.g., the collegial faculty learning groups, having peers support each other during the live sessions; Baran and Correia 2014; Dede et al. 2009). Facilitator support and feedback were much appreciated when the faculty had something to ask or were concerned about something. Creating a

small community of learners built around online teaching and design fostered the sharing of ideas and experiences. The participants valued the success stories and reflected on the presented best practices. Darling-Hammond, Hyler, and Gardner (2017) also found that modeling the best practices in online teaching during training encouraged the faculty to do the same in their own teaching. The third researcher was also the lead trainer in the program and has extensive experience teaching and designing online courses. As he engaged the participants through a constructivist way of interaction using an inquiry approach (i.e., asking questions, Socratic questioning, and creating discussion at the moment with feedback), the faculty developed new perspectives to integrate with their own teaching just by experiencing and observing. Modeling the instructor was intentionally put in the program so that the faculty members would begin characterizing their own online teaching style. The fact that the second, third, and fourth researchers who provided the training were models during the training process contributed to the positive development of the participants' teaching styles. However, the fact that the participating faculty members had teaching experience, participated in the training program voluntarily, continued with determination until the end of the training program, did the assigned homework, and continued to interact outside of class not only with the instructors but also with their peers made a very positive contribution to this process.

When we juxtapose the reasons for attending the program (theme #1) and the gained knowledge, skills, and perspectives (theme #2), the program is said to have fulfilled its promises. For example, our focus on design itself as a big part of the training was what some participants expected to see. This is also about relevance. Because the faculty had found something with which they could relate and consider valuable in their daily professional practice, they committed more and engaged more in their own learning. One of the success criteria might be motivating faculty to immerse themselves in the learning journey.

Seven factors significantly contribute to faculty satisfaction with professional development programs in higher education: "(1) achievement of the program objectives, (2) appropriateness of the program topics, (3) appropriateness of the program activities, (4) duration of the program, (5) academic developers' teaching skills, (6) appropriateness of the program objectives, and (7) academic developers' skills in discussion management" (Muammar and Alkathiri 2022, 221). In addition, a needs analysis study prepared by all researchers together before the program is designed is another essential factor in ensuring that the program meets the expectations and that the instructors have knowledge and skills in online course design. Obtaining

the participants' expectations from the program to be designed, determining their needs, and preparing a training program according to the working hours of the faculty members can be considered as factors that motivate the faculty members in their online course design journey. Therefore, in program design, determining the needs of the participants, whether they have to participate in a training program voluntarily or compulsorily, is seen as one of the prerequisites for the training program's success.

Limitations: Although this study is enlightening by responding to faculty needs as a faculty development study to design effective online courses, it is subject to several limitations. Firstly, the research is confined to a specific academic setting - a foundation university - which may limit the generalizability of the findings to other types of institutions (like a state university). The particular characteristics and motivations of faculty members at this university might differ significantly from those at the state or other types of universities.

Secondly, the participants in this study were people who participated in the application voluntarily. So, they showed high levels of enthusiasm and determination. Voluntary participation of faculty members affects the representativeness of the findings. It may not accurately represent the experiences or impacts on faculty members with average or lower enthusiasm and engagement in professional development.

Third, Although the implemented professional development program was prepared to high standards, based on the needs of the faculty members, and taking into account online course design standards, it should be supported by similar research. Furthermore, the study's reliance on qualitative methods, although rich in detail, may limit the ability to quantify the impact of the professional development program and make broad generalizations. Future research could benefit from incorporating a more diverse participant pool from various types of institutions and employing mixed methods research to provide a more comprehensive understanding of the effectiveness of similar professional development programs in different contexts.

Considering the country where the study was conducted, the faculty members who participated are foundation university faculty members. Foundation university faculty members, as younger faculty members at the beginning of their careers, have different characteristics than the more experienced faculty members working at the state university; therefore, this feature of the study's participants is another limitation of the study. Additionally, exploring the experiences of faculty less inclined to participate in such programs could offer valuable insights into barriers to engagement and ways to address them.

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Appendix

Table 1

The professional development content

First Week	Live course 1	The module concept	Expert Feedback to Individual Assignments and Reflection Journals
	Live course 2	Module design and quality standards	
	Individual Assignment	Instructional design assignment on module knowledge, model, and targets	
	Reflection Diaries	Reflection on the week based on the reflection form that included five open-ended questions	
Second Week	Live course 3	Interactive, Collaborative and Asynchronous Methods-Techniques	
	Live course 4	Interactive, Collaborative and Asynchronous Methods-Techniques	
	Individual Assignment	Instructional design assignment where the participants associated questioning groups and interaction methods, and included module activities and activity details	
	Reflection Diaries	Reflection on the week based on the reflection form that included five open-ended questions	
Third Week	Live course 5	Innovative, Formative Evaluation and Performance Task	
	Live course 6	Innovative, Formative Evaluation and Performance Task	
	Individual Assignment	Evaluation activities that included decisions on the measurement of module targets and instructional design assignment on the performance task	
	Reflection Diaries	Reflection on the week based on the reflection form that included five open-ended questions	

188

Asynchronous Activities and Materials Playposit Videos and Perusall Reading			
Fourth Week	Design Workshop Session 1	Module design in groups of three with expert supervision	Expert Feedback to Module Design Assignment
	Design Workshop Session 2	Module design in groups of three with expert supervision	
	Module Design Assignment	Ready-to-implement module design assignment where they integrated their modules into the LMS	
	Final Reflection Diaries	Reflection on the whole program based on the reflection form that included nine open-ended questions	