



The Aftermath of COVID 19: Future Insights for Teachers’ Professional Development in Higher Education

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Introduction

After the crisis of COVID19 and its direct impact on the education sector (Hysaj & Hamam, 2020), teachers worldwide started to think about the need to change/adjust their professional development programs to cope with the ongoing changes, especially those areas that are related to online teaching and teaching with technology. Nowadays, teaching with technology is no longer a luxury (Hicks & Turner, 2013); it is a necessity, and it is essential for getting a job. Before COVID19, many teachers were still convinced that the traditional teaching approaches were sufficient and that technology in the classroom was a luxury. However, the pandemic was a game-changer in this respect, and now most teachers are aware of the importance of teaching with technology. During the lockdown, many teachers dedicated time to teaching online properly and developing their own skills to perform better in the virtual classroom. According to Hatip (2020), the pandemic was a chance for teachers and students to grow. Therefore, professional development programs are the key to supporting the ongoing teaching and learning process and ensuring that the process was uninterrupted. This study proposed two research questions: 1-To what extent were higher education teachers prepared to switch to online teaching during the pandemic? 2-What are the higher education teachers’ needs for future professional development programs? These questions aim to understand the nature of the change in the educational process and the future needs of professional development programs in higher education.

Literature Review

Teachers’ Preparedness and Response

According to DeCoito and Richardson (2018), there is a disconnection between teachers’ beliefs and their practice when teaching with technology. In their longitudinal study, the researchers aimed at exploring the changes of the teachers’ approaches in teaching with technology over a long period. The study revealed that novice teachers were faster in adapting to technology and aligned their use to the



student-centred approach. However, the older generations could not do the same and did not believe in the necessity of this change. The researchers concluded that a powerful influence from an external factor needs to occur for the transition to occur. It seems that Covid 19 was that external factor as teachers needed to switch to the online environment, resulting in the urgent need to use technology. Trust and Whalen (2020) mentioned that through the pandemic outbreak, K-12 teachers were among the educators who needed to switch to remote learning within a few days, and this revealed the gap between their training and their actual preparedness to teach in the online classroom. The study showed that around 68% of those teachers had never experienced remote teaching. After teaching remotely, most participants revealed that they felt overwhelmed by the experience and needed a lot of support. Hartshorne, et al. (2020) emphasised the importance of remote teaching and learning and teacher education. In addition, according to Shenoy et al. (2020), the pandemic played a vital role for higher education teachers to endorse the use of technology in teaching and shift to online classes. Finally, the study of Cutri et al. (2020) stressed that changes in the professional development program are necessary to increase teachers' readiness and preparedness for this type of teaching.

Professional Development

Teachers need different types of professional development courses. Before, the focus was on many topics such as teaching and pedagogy, collaboration, curriculum design and general professional growth. But now, with the advances of technology and the new trends, there is a strong need for professional development programs that focus more on the use of technology and the rationale behind using each technological tool or platform. Clausen et al. (2020) found that the transition to remote learning resulted in some students who were not doing their homework. Surveys were conducted to identify the reasons behind the students' actions. The study results helped create a new professional development program that is focused on strategies to enhance the communication between teachers and parents. Moreover, educators needed innovative ways of professional development. Trust et al. (2020) collected tweets from educators in the middle of the crisis, and almost 36% of these tweets were positive and contributed to teachers' professional development. Educators shared ideas, resources, triumphs, and many other sentiments. This was a new form of professional development for teachers around the globe. Other forms are needed, for example, Albrahim (2020, p. 9) stated that there were six categories identified in his study for the teachers' skills and competencies; These were "pedagogical skills, content skills, design skills, technological skills, management and institutional skills, and social and communication skills".

Teaching with Technology

Teaching with Technology (TWT) seems to be one of the most critical aspects of teachers' professional development programs. With the changes that resulted from the pandemic, even teachers who were resistant to change now believe that they must learn how to use different methods of teaching with technology. Many researchers emphasised the importance of integrating technology in teachers' education, such as Admiraal et al, (2017). On the other hand, Klenin et al, (2020) stated that there is a need to consider modern society in the process of building "new education" because, without technology, life cannot be imagined. Furthermore, in their study, Barzani et al. (2021) found out that all teachers already use technological devices, multimedia, and other software to teach English subjects, which has led to improvements in the students' level. However, they also found technical issues that occasionally hindered the process of teaching and learning. Therefore, there was a need to explore the advantages and disadvantages of teaching with technology in the classroom. Moreover, in the study of Erkan (2020), EFL teachers used ICT tools and 2.0 web tools efficiently in their practice and expressed much confidence. They also stated that using such tools was very beneficial for their students; the main challenge was the infrastructure issues. Furthermore, Windiarti et al. (2019) found many obstacles to e-learning, such as

using e-learning devices, lack of teachers' knowledge, and others. The study suggested dealing with these obstacles first to improve the process of teaching with technology.

Methodology

This study used a mixed-method design to collect qualitative and quantitative data with the overall aim of answering the two research questions proposed. The sample size was chosen from several higher education institutions, and teachers were asked to fill in a survey that included questions related to their preparedness to teach with technology and their perceived need to be trained to use technology in their online classrooms. The survey was sent to 129 candidates, but only 53 responded; this resulted in a response rate of approximately 41%, which makes the sample a good representation of the population. The survey included 12 Likert scale items in the first part and two open-ended questions in the second part. The 12 Likert scale items were divided into two sections; the first section was about the extent of teachers' preparedness to switch to online teaching and the second section was about the training needed to teach online. The open-ended questions were about: 1. The biggest challenge faced during online teaching and/or teaching with technology, and 2. The need for professional development training to improve the practice of teaching online and/or with technology. The study utilised quantitative data in the first part of the survey to get specific numbers about teachers' preparedness and needs, and the study also utilised qualitative analysis of open-ended questions to capture a broader range of challenges faced by the teachers while teaching online and/or with technology and their future needs in the professional development programs. The qualitative data were then categorised based on the patterns observed in the respondents' answers and the number of those who showed the same or similar concerns.

Results

Based on the data collected, it was noticeable that over 60 per cent of teachers were positive about their preparedness to transition from face-to-face to online classes, and almost the same percentage of teachers, 61% found it challenging to engage students in the online environment. Data collection revealed that another challenging aspect of online teaching was the inability of teachers to adapt material online in an adequate and fun way. Therefore, precisely 38 per cent of teachers found teaching with innovative ideas in the online environment challenging, and over 50 per cent were moderately concerned about using online applications. The second part on the need for professional development using technology revealed that precisely 46 % of respondents felt very strongly about the need to attend more courses in teaching with technology. Furthermore, over 40 per cent of respondents felt the need to explore the pedagogical benefits of using technological tools, and around 49 per cent did not feel the need to explain the purposes of using these technological tools to their students. It is worth mentioning that the reluctance to include students' opinions in the purpose of using these tools may result from a lack of awareness of their benefits and subsequent appropriate utilisation. On the other hand, open-ended questions about the biggest challenge of online teaching revealed that most respondents found it hard to bond with their students while in the online environment. The respondents' concerns mainly addressed the pedagogical implications of using a wide range of applications and various tools, and most importantly, the need to master them in a relatively short period. Over 50 per cent of respondents experienced considerable difficulties in actively and purposefully engaging students in the online environment and, most importantly, aligning their material with the utilisation of technological tools. Some teachers also expressed that technical issues hindered the proper use of technology.

Discussion

The study showed that teachers in higher education were prepared to teach online to a large extent. However, they needed more training to enhance their practice. The study also showed that there are certain future needs for professional development programs at the tertiary level. These can be summarised in knowing the pedagogy behind teaching with technology, learning how to integrate several platforms with the LMS, and troubleshooting simple technical issues. We believe that our study paves the way towards understanding higher education teachers' needs regarding the adequate utilisation of technological tools and their application in the online environment.

Furthermore, this study highlights the challenges faced by teachers in managing their online classrooms. These challenges were mainly of pedagogical and technological nature and highlighted the necessity to align the purpose of using these technological tools with the desired learning outcomes of the subject matter being taught. Generally, it is well-known that curriculum design requires adequate consideration of the learning outcomes and the material covered to achieve these learning outcomes as well as assessment tasks that support learning and align with learning outcomes. Since the process of teaching is interdependently connected with the process of learning, the utilisation of technological tools in online classrooms should take into consideration the needs of teachers to be trained pedagogically and technologically to use these tools (Ferdig, et al. 2020; Hamam & Hysaj, 2021; Taghizadeh & Hasani Yourdshahi, 2020). The training of teachers would require financial and technological support from their respective institutions. Therefore, this study highlights the need for policymakers to consider formal and informal teacher training to use technological tools more efficiently and to reduce the stress levels associated with the many unexplored components of the online platform, such as students' active engagement, the validity of online examinations and issues of plagiarism. This should be done on a deeper level, which includes knowing how to teach with technology and the rationale and pedagogy behind each technological tool or platform used. The most positive outcome of this study is the desire of teachers to be familiar with more technological tools to facilitate teaching and learning and, most importantly, their tendency to proactively connect the pedagogical understanding of the use of the tools with the curriculum design. This finding agrees with our previous finding of the willingness of teachers to use technology, especially the TPACK framework, in their teaching practice (Hamam & Hysaj, 2021). In general, some teachers considered their lack of technological tools' knowledge an added challenge to the complex nature of online teaching. Therefore, exploring ways to explain concepts and applications of such technological tools and their innovative aspects becomes necessary to make teaching and learning fun, easy, and inclusive. We suggest that professional development programs should be updated regularly to meet the dynamic needs of teachers at this rapid-changing time and to cover most of the new and innovative teaching with technology tools and methods.

Conclusion and Recommendations

This paper has investigated higher education teachers' preparedness and readiness to teach online with the switch to online classes during the COVID19 pandemic, and discussed the need for changing/adjusting teachers' professional development programs to meet the different challenges in the educational field. The study also highlighted that the need to consider teachers' professional development is equally important to applying technological tools in the online environment. As technological tools are created to facilitate teaching and learning, their application should be explored, understood and embraced by teachers so the knowledge can be transferred from teachers to students naturally and inclusively. As other tools traditionally utilised in education, technological tools should be an added advantage rather than an unnecessary added challenge to the teachers and students alike. This study has paved the way to considering teachers opinions when implementing technology in online learning. Although such was not possible amid the COVID 19 outbreak, it is possible now, and it should occur to ensure that teachers and

students benefit from the implementation of technological innovations and the enhanced methods of teaching with technology.

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References

- Albrahim, F. A. (2020). Online teaching skills and competencies. *Turkish Online Journal of Educational Technology-TOJET*, 19(1), 9-20.
- Admiraal, W., van Vugt, F., Kranenburg, F., Koster, B., Smit, B., Weijers, S., & Lockhorst, D. (2017). Preparing pre-service teachers to integrate technology into K-12 instruction: Evaluation of a technology-infused approach. *Technology, Pedagogy and Education*, 26(1), 105-120.
- Barzani, S. H. H., Aslam, M. Z., & Aslam, T. (2021). The role of technology in ELL classes in Turkish Republic of Northern Cyprus. *International Journal of Language Education*, 5(2), 30-39.
- Clausen, J. M., Bunte, B., & Robertson, E. T. (2020). Professional development to improve communication and reduce the homework gap in grades 7-12 during COVID-19 transition to remote learning. *Journal of Technology and Teacher Education*, 28(2), 443-451.
- Cutri, R. M., Mena, J., & Whiting, E. F. (2020). Faculty readiness for online crisis teaching: Transitioning to online teaching during the COVID-19 pandemic. *European Journal of Teacher Education*, 43(4), 523-541.
- DeCoito, I., & Richardson, T. (2018). Teachers and technology: Present practice and future directions. *Contemporary Issues in Technology and Teacher Education*, 18(2), 362-378.
- Erkan, H. C. (2020). Digitalisation of English language teaching in higher education: Insights from English preparatory classes in Turkish universities [Unpublished master's thesis]. University of Helsinki.
- Ferdig, R. E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R., & Mouza, C. (Eds.) (2020). *Teaching, technology, and teacher education during the COVID-19 pandemic: Stories from the field*. Association for the Advancement of Computing in Education.
- Hatip, A. (2020). The Transformation Of Learning During Covid-19 Pandemic Towards The New Normal Era. In *The International Webinar on Education Proceedings* (pp. 18-28). Universitas Muhammadiyah Surabaya.

- Hicks, T., & Turner, K. H. (2013). No longer a luxury: Digital literacy can't wait. *English journal*, 58-65.
- Hysaj, A., & Hamam, D. (2020). Exploring the affordance of distance learning platform (DLP) in COVID19 remote learning environment. In C. Stephanidis (Ed.), *Human-Computer Interaction – HCI International 2020* (pp. 421-431). Springer.
- Hamam, D. & Hysaj, A., (2021). Technological pedagogical and content knowledge (TPACK): Higher education teachers' perspectives on the use of TPACK in online academic writing classes. In C. Stephanidis (Ed.), *Human-Computer Interaction – HCI International 2021* (pp. 51-58). Springer.
- Hartshorne, R., Baumgartner, E., Kaplan-Rakowski, R., Mouza, C. & Ferdig, R. E. (2020). Special issue editorial: Preservice and inservice professional development during the COVID-19 pandemic. *Journal of Technology and Teacher Education*, 28(2), 137-147.
- Klenin, A. I., Donskov, A. V., Spasskaya, D. D., & Abobakr Mohamed, A. K. (2020). Digital technologies in teacher training: New experience. *ITM Web Conferences*, 35, <https://doi.org/10.1051/itmconf/20203506002>
- Shenoy, V., Mahendra, S., & Vijay, N. (2020). COVID 19 lockdown technology adaption, teaching, learning, students engagement and faculty experience. *Mukt Shabd Journal*, 9(4), 698-702.
- Taghizadeh, M. & Hasani Yourdshahi, Z. (2020). Integrating technology into young learners' classes: Language teachers' perceptions. *Computer Assisted Language Learning*, 33(8), 982-1006.
- Trust, T., Carpenter, J. P., Krutka, D. G., & Kimmons, R. (2020). #RemoteTeaching & #RemoteLearning: Educator tweeting during the COVID-19 pandemic. *Journal of Technology and Teacher Education*, 28(2), 151-159.
- Trust, T. & Whalen, J. (2020). Should teachers be trained in emergency remote teaching? Lessons learned from the COVID-19 pandemic. *Journal of Technology and Teacher Education*, 28(2), 189-199.
- Windarti, S., Fadilah, N., Dhermawati, E., & Pratolo, B. W. (2019). Teachers' perception toward the obstacles of E-learning classes. *Ethical Lingua: Journal of Language Teaching and Literature*, 6(2), 117-128.

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