

# Chapter 2

## A Grassroots Approach Towards Professional Development in Blended Learning of a Faculty at a University in Hong Kong



Cher Ping Lim, Danlin Yang, and Yu Gao

**Abstract** Based on a case study of a faculty at a university in Hong Kong, this chapter examines how a grassroots approach to professional development enhances the capacity of the teaching staff for blended learning. Professional development plays a pivotal role in supporting the teaching staff to adopt blended learning in their courses to enhance the quality of learning and teaching. However, professional development policies and practices do not always meet the professional learning needs of staff, and many of them do not feel supported in their blended learning practices after attending the professional development sessions. This chapter first discusses how the grassroots approach to professional development in blended learning was developed and implemented in the faculty. Both qualitative and quantitative data were collected and analysed to document the impact of the professional development on staff's adoption of blended learning in their courses. Based on the key findings from this set of data from the faculty, the grassroots approach is refined and customised for each faculty at the university as part of the scaling-up process.

### 2.1 Introduction

Blended learning is the integration of in-class face-to-face (F2F) learning and online learning (Garrison & Kanuka, 2004). Blended learning provides opportunities for university teaching staff to enhance the quality of their courses by engaging their students and improving their learning outcomes (Graham, 2006; Norberg, Dziuban, & Moskal, 2011; Wanner & Palmer, 2015). For example, students may develop a deeper understanding of the topic by engaging in online interactions with their peers and teachers mediated by synchronous and asynchronous online communication tools. At the same time, the teaching staff may design F2F learning activities, based

---

C. P. Lim (✉) · D. Yang · Y. Gao  
The Education University of Hong Kong, Hong Kong S.A.R., China  
e-mail: [clim@eduhk.hk](mailto:clim@eduhk.hk)

on the students' online interactions to accommodate student learning needs. Blended learning, therefore, is not simply the introduction of online technologies to existing F2F lessons. It requires the teaching staff to design the online and F2F learning in an integrative fashion. It is crucial for the capacity of the teaching staff to be built through professional development (PD) so that they could engage in blended learning practices to enhance the quality of learning and teaching in higher education.

The Faculty of Education and Human Development (FEHD) at the Education University of Hong Kong (EdUHK) envisions itself to be a leader of online and blended learning practices in teacher education and professional learning of education leaders, practitioners, and policymakers locally and internationally. The faculty expects all teaching staff to develop and implement courses and programmes that are mediated by online learning tools to support students in meeting the intended learning outcomes. Although the majority of the teaching staff uploaded digital resources onto the university learning management system (LMS), Moodle, to support F2F lessons, only a minority designed interactive online learning activities on Moodle that complement F2F learning activities in a course.

One of the main reasons why only a minority of the staff are engaged in blended learning practices is the lack of capacity to design and implement courses that take up the potential of online technologies (Gregory & Lodge, 2015). The teaching staff may excel in their own discipline areas, but they may not be equipped with the competencies for blended learning.

The PD sessions conducted for the teaching staff at the university level might address this lack of capacity. However, the existing PD approaches may not have a strong impact on blended learning practices. These PD sessions tended to be one-size-fits-all and focused on detailed demonstrations of specific technical features of the LMS or online learning tools. The teaching staff might not understand how the potential of online learning technologies could be taken up to complement F2F learning activities to engage students (Bennett, Agostinho, & Lockyer, 2017). Moreover, the PD sessions tended to be one-off, rather than ongoing, where the teaching staff would be engaged in the PD as they are adopting the blended learning approach in their courses. Therefore, it is necessary to develop a more sustainable and needs-driven approach for PD in blended learning so that teaching staff capacity for blended learning could be built. Based on the case study of FEHD at EdUHK, this chapter examines how a grassroots approach towards PD enhances the capacity of the teaching staff for blended learning at the faculty level.

## 2.2 Literature Review

In this section, the issues and challenges of PD in blended learning are first pointed out. To address the existing issues and challenges faced by PD in blended learning, two key principles for effective PD in blended learning are introduced. This section will shed light on the development of a grassroots approach towards PD in blended learning.

### ***2.2.1 Issues and Challenges of PD in Blended Learning***

Research studies of blended learning in higher education have highlighted the need to build the capacity of the teaching staff for blended learning to enhance access to quality higher education learning and teaching (Johnson, Becker, Cummins, & Estrada, 2014; Esterhuizen, Blignaut, & Ellis, 2013). However, many existing PD programmes focus on introducing online learning tools without explaining and providing examples of how they could be used to complement F2F learning activities to enhance learning and teaching (Maddux & Johnson, 2005; Porter & Graham, 2016). Such PD programmes may not support the teaching staff to adopt blended learning within their courses. Bolelens, Voet, and Wever (2018) explain how PD programmes could support the teaching staff to redesign their courses as they integrate online learning activities to complement F2F learning activities in their courses. When online and F2F learning activities support each other, students are more likely to be engaged.

One-off PD workshops that are often conducted in universities may not support the teaching staff to keep pace with the changing online technologies (van As, 2018). The teaching staff need ongoing PD opportunities to keep learning and exploring how emerging online technologies could be integrated in their courses. At the same time, many of the PD programmes offered in universities tend to be one-size-fits-all and may not meet the diverse professional learning needs of the teaching staff. Another challenge is the gap between PD in blended learning and the professional support for the blended learning practices (Vaughan, 2010; Kennedy, Jones, Chambers, & Peacock, 2011). That is, the follow-up PD support for blended learning is not in place for most PD programmes. Without ongoing professional support for staff's blended learning practices, they may give up or lose motivation to engage in such practices.

### ***2.2.2 Key Principles of PD for Blended Learning***

To address these issues and challenges, two key principles for effective PD are identified:

- Establishing a professional learning community
- Addressing the PD needs of the teaching staff

#### **2.2.2.1 Establishing a Professional Learning Community**

Establishing a professional learning community may provide ongoing support for the teaching staff to engage in blended learning practices. Professional learning communities are groups of professionals developing their competencies in a context with shared concerns and a shared vision, by learning from and with peers on an

ongoing basis (Wenger, McDermott, & Snyder, 2002). Researchers explained that effective PD is iterative, social, and situated in teaching contexts (Trust, Krutka, & Carpenter, 2016; Van den Bergh, Ros, & Beijaard, 2014). Developing a professional learning community as part of the PD approach for blended learning provides better support for the teaching staff as they build their capacity for blended learning by being engaged in blended learning practices (van As, 2018).

When the teaching staff are making sense of and addressing the complexities of blended learning practices and the rapidly changing online technologies, they could learn from and support one another. More specifically, they could draw inspirations from one another by observing one another's blended learning practices (MacDonald & Campbell, 2012) and provide one another with support when encountering challenges of how to blend the online and F2F activities (Bohle Carbonell, Dailey-Hebert, & Gijsselaers, 2013).

With the peer support, the teaching staff are more likely to keep on their PD and thus enhance their confidence and develop their competencies in blended learning by reflecting and experimenting blended learning in a collaborative way (Wicks, Craft, Mason, Gritter, & Bolding, 2015; Vaughan & Garrison, 2006). Apart from the peer support among the teaching staff, the shared vision and support at the leadership level about blended learning also matter (Ertmer & Ottenbreit-Leftwich, 2010). When leaders understand the potential of blended learning for learning and teaching enhancement, they are more likely to offer resources and support for the teaching staff and contribute to the sustainability of the professional learning community. Therefore, establishing a professional learning community is a key principle of PD in blended learning and supports the PD in blended learning in a sustainable way.

#### **2.2.2.2 Addressing the PD Needs of the Teaching Staff**

The first PD need of the teaching staff is the pedagogy for blended learning. The common focus of existing PD in blended learning is online technologies (Cowan, 2013). Blended learning requires the teaching staff not only to understand how to utilise online technologies but also to integrate online technologies for meaningful student learning experience. PD needs to switch from a technology-centric approach to how to blend online learning activities with F2F ones.

Second, blended learning needs thoughtful design on the integration of online technologies in a course. The teaching staff may need time and ongoing support as they engage in blended learning practices. However, existing one-off PD workshops do not take the busy schedule of the teaching staff into consideration (Philipsen, Tondeur, Pareja Roblin, Vanslambrouck, & Zhu, 2019). It is challenging for the teaching staff to allocate time for one-off PD due to the demanding workload for research, teaching, and administration (Bakah, Voogt, & Pieters, 2012). PD should be an iterative process for the teaching staff to build up their capacities for blended learning, and they engage in such practices. Therefore, the PD in blended learning should address the sustainable needs of the teaching staff in blended learning.

Moreover, the teaching staff need individualised PD in blended learning. Many of the PD programmes in blended learning are one-size-fits-all. It neglects the diverse beliefs and capacities of the teaching staff and the teaching context and thus may affect the effectiveness of the PD. The PD in blended learning should meet the diverse needs and contexts of the teaching staff. The teaching staff should engage in blended learning design, development, and implementation in their courses as they are undergoing the PD, where they reflect upon their own practices and share the practices and reflections with their peers. They could then have a deeper understanding of how they could use blended learning strategies in their own course context.

On the other hand, the rapid changes of online technologies require the teaching staff to develop their capacities to keep up to date and integrate online learning tools into their courses. As highlighted in Porter and Graham's study (2016), the availability of support, feedback, and guidance will motivate the teaching staff for blended learning. In sum, such a PD approach addressing the PD needs of the teaching staff in blended learning is more effective than existing PD approaches (Mirriahi, Alonzo, McIntyre, Kligyte & Fox, 2015; Hew & Brush, 2007, McGrail, 2005; Hunzicker, 2011).

Establishing a professional learning community and addressing the PD needs of the teaching staff are two key guiding principles for effective PD of higher education teaching staff. Drawing upon these principles, a grassroots approach towards PD in blended learning is developed and implemented to support the implementation of blended learning in FEHD.

### **2.3 Grassroots Approach Towards PD in Blended Learning in FEHD**

The grassroots approach to PD in blended learning was adopted to enhance the learning and teaching in FEHD at EdUHK. The grassroots approach is a bottom-up approach towards PD, with a focus on meeting the individual PD needs of the teaching staff in FEHD (Bohle Carbonell et al. 2013). This approach consists of two key components. The first one is the professional learning community led and facilitated by the department-based blended learning ambassadors. The community aims to provide peer support for the teaching staff as they engage in blended learning practices in their course (MacDonald & Campbell, 2012). Another component is the needs-driven support offered by Technology-Enhanced Learning Hub (TEL-Hub). These two key components of the PD approach are situated in the sociocultural context of the faculty with a strong quality enhancement culture for learning and teaching.

### ***2.3.1 The Establishment of the Faculty Professional Learning Community for Blended Learning***

To establish a faculty professional learning community for blended learning, two essential components are required, namely, leadership support and blended learning ambassadors.

#### **2.3.1.1 Leadership Support**

Blended learning is an integrated part of the learning and teaching plan and strategies in FEHD. The faculty leaders were committed to the promotion and support of blended learning for learning and teaching enhancement (Laurillard, 2005; Porter & Graham, 2016; Moskal, Dziuban, & Hartman, 2013). The faculty leaders included the dean, associate deans, heads of department, and the departmental chairs of the learning and teaching committee. The establishment of the professional learning community was well-aligned with the leadership commitment to quality enhancement. As suggested by Graham, Woodfield, and Harrison (2013), the formal blended learning advocacy by faculty leaders is crucial for more teaching staff to adopt the blended learning practices. In order to establish the professional learning community, the teaching staff who have had engaged in blended learning practices were identified from the six departments in FEHD to serve as blended learning ambassadors. These blended learning ambassadors had one course relief from their teaching workload so that they could devote more time to build and support the professional learning community at the departmental and faculty levels.

#### **2.3.1.2 Blended Learning Ambassadors**

Blended learning ambassadors were the front runners of blended learning practices in the faculty. They were designated to share their practices and support their colleagues in their respective departments (Porter & Graham, 2016). The ambassadors shared not only their own promising practices but also the challenges that they encountered and how they addressed them. Moreover, they provided examples of how their students benefited from or struggled with blended learning in their courses.

At the departmental level, the ambassadors collaborated with the faculty-based supporting unit (TEL-Hub) to organise sharing sessions and hands-on workshops to discuss blended learning practices with their colleagues. The sharing sessions generally consisted of four parts, followed by hands-on workshops. First, the ambassadors introduced their course information and their background with online technologies. Second, the teaching staff shared the online tools they used and why they chose the tools. At the same time, they demonstrated the main features and how they integrated these tools in the courses. Then, they provided evidences of impacts

on student learning engagement and outcomes. Finally, they shared the challenges and reflections of their blended learning practices. For the hands-on workshops, the participants were provided with the opportunities to use the online tools that were shared in the sessions with the support from the ambassadors and the TEL-Hub staff.

Such blended learning practices shared among their colleagues within the same department had a positive impact on the PD of the teaching staff. The teaching staff were more likely to relate to the blended learning practices shared by the ambassadors with their own teaching contexts (since they may be teaching similar courses). Moreover, the teaching staff were more likely to be convinced by the evidence shared by colleagues from their own department regarding student learning engagement and outcomes. Apart from the sharing sessions and workshops, the blended learning ambassadors were committed to record videos of their own promising blended learning practices and share their reflections. These videos provided all teaching staff with access to the blended learning experiences of the ambassadors.

In order to engage more teaching staff, the ambassadors also shared their experiences in different university learning and teaching events. These experiences were presented on posters to showcase their promising practices and share the benefits and challenges that they encountered. The vivid exemplars were likely to motivate and encourage the other colleagues to explore blended learning practices in their own courses, cultivating a blended learning culture within the faculty and departments.

### ***2.3.2 Needs-Driven and Just-in-Time Support in FEHD: TEL-Hub***

Generally, without ongoing support, the teaching staff may feel anxious about adopting online technologies in their courses. The support provided for them has to be based on their diverse professional needs and just-in-time support to adopt blended learning in their courses (Keengwe, Georgina, & Wachira, 2010). In terms of blended learning, the teaching staff need to learn how to integrate online technologies in their courses. However, the centrally administered PD only focuses on the features of the LMS Moodle, instead of how the features could be integrated into the learning and teaching activities in the course. Moreover, other online tools that are not part of the LMS are often left out from the PD programmes. In other words, the centralised PD programmes could not meet the diverse needs of the teaching staff in terms of the integration of Moodle and other emerging online technologies in their courses.

With the faculty leadership support for blended learning, TEL-Hub was established in 2015, as a faculty-based unit that supports the capacity building of the teaching staff in blended learning, develops online learning resources, and explores emerging online technologies for learning and teaching enhancement. To achieve these goals, the TEL-Hub staff with technological and pedagogical knowledge



provide customised and just-in-time blended learning support for the teaching staff to meet their diverse needs, including PD sessions at the faculty, department, programme, course, and individual levels, just-in-time PD support, and quality blended learning PD resources.

At the same time, a blended learning survey was administered every semester to understand how the online technologies were adopted and the changing needs of the teaching staff. The survey was sent out via emails or hard copies to collect as many responses as possible in order to have a better understanding of the professional needs in the faculty. According to the survey responses from the last 2 years, three major types of support were requested by the teaching staff: (1) examples of online tools used by colleagues, (2) step-by-step written/video tutorials on how to use these tools, and (3) information about commonly used online tools. Based on the needs identified, TEL-Hub, together with the blended learning ambassadors, offered a variety of workshops, consultations, and sharing sessions for the teaching staff.

### **2.3.2.1 Customised PD for Teaching Staff: Teaching Context-Oriented and Adaptive Support**

Flexible and pedagogical-oriented hands-on workshops and just-in-time support were part of the customised PD for teaching staff in FEHD. As Buchanan, Sainter, and Saunders (2013) indicated, it is crucial to customise the workshops to accommodate the needs of teaching staff. TEL-Hub customised hands-on workshops to support the teaching staff in FEHD. Unlike the centrally administered workshops, TEL-Hub regularly conducts 30-minute hands-on workshops on the design and development of specific blended learning activity. The workshops aim to build up the teaching staff's confidence and capacities to adopt online technologies in authentic teaching contexts. Lawless and Pellegrino's (2007) study emphasised that PD had to focus on supporting teaching staff in their teaching contexts with online technologies rather than isolating online technologies from their teaching contexts.

In order to address the PD needs of the teaching staff, TEL-Hub offered the workshops in two parts: technological hands-on practices and customised teaching strategies on how these online technologies could be adopted in their courses. That is, workshops emphasised on the strategies of adopting online technologies in the teaching contexts. For example, online quizzes allow students to receive immediate feedback of their responses of close-ended questions, and the teaching staff could provide more personalised and qualitative feedback accordingly. For enhancing student collaboration and reflection, online asynchronous and real-time discussions could be adopted. It is crucial to focus on the strategies for addressing the PD needs of the teaching staff in blended learning. Therefore, the teaching staff are more likely to be aware of the benefits of blended learning and are more willing to attend PD workshops.

As indicated in Davis and Fill's study (2007), the teaching staff need ongoing support to deal with the complex integration of online technologies in their teaching contexts. TEL-Hub offered individualised consultation sessions for the teaching



staff to integrate blended learning in their courses. During the consultation sessions, the teaching staff designed blended learning activities and developed their competencies of using online technologies with the support from the TEL-Hub staff.

Just-in-time support was also provided for the implementation of blended learning. PD could be provided at each stage of the integration process from design to implementation and evaluation (Moskal et al., 2013). The teaching staff were provided with opportunities to share their experiences with their colleagues formally and informally in a professional learning community that nurtured the PD culture in blended learning at the faculty (Boelens, Voet, & Wever, 2018).

### 2.3.2.2 Accessible Quality Blended Learning PD Resources

Apart from the customised PD sessions, another element is the blended learning PD resources for the teaching staff. The online resources provide them with access anytime and anywhere. The resources allow the staff to explore at their own pace the emerging online learning tools for enhancing the quality of their courses (Torrissi-Steele & Drew, 2013; Moskal et al., 2013). The first category of the blended learning PD resources focuses mainly on the university LMS Moodle. Unlike the existing technical-oriented resources for Moodle, this set of PD resources focuses on how the Moodle features could be adopted for higher education learning and teaching. This set of online resources consists of Moodle features, short step-by-step guide video tutorial, and exemplars of how these Moodle features are used. The second category of PD resources is an online collection of emerging online technologies that could be used to enhance the quality of learning and teaching. It serves as a platform for the teaching staff to explore how online technologies could be integrated in their courses. Apart from addressing their needs of online technologies, it is necessary to provide evidences of the benefits of blended learning for the quality enhancement of learning and teaching. The third category of PD resources is the promising blended learning practices of the selected teaching staff. These promising practices demonstrate the pedagogical affordances of the online technologies for quality enhancement and are more likely to engage the teaching staff in PD in blended learning.

These resources were developed by the TEL-HUB staff with the input of the teaching staff. The professional learning community encouraged the teaching staff to make ongoing contributions. They were those who shared their promising practices as peer support and resources and those who engaged in the PD for exploring online technologies. In this way, the quality of the accessible blended learning PD resources was enhanced to meet the diverse professional learning needs of the teaching staff.

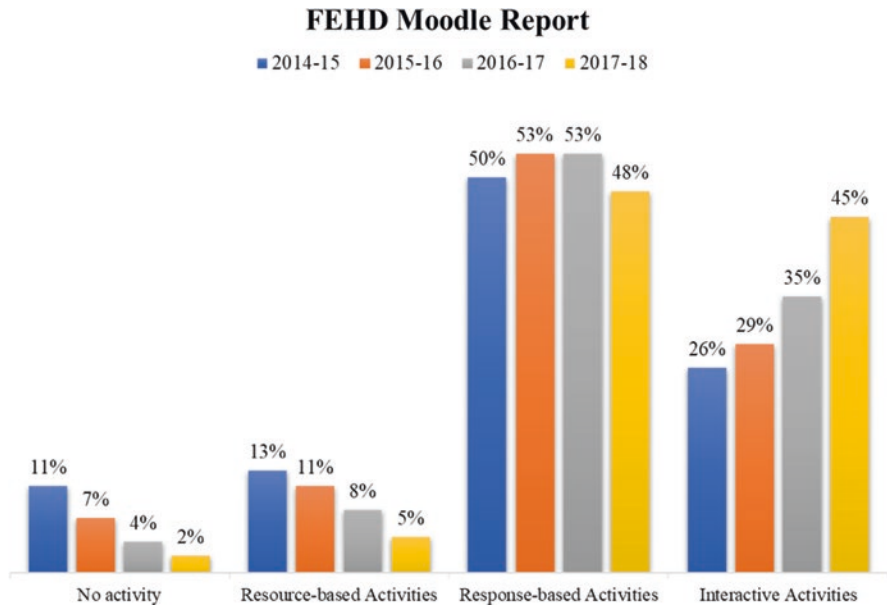
### ***2.3.3 Impact of the Grassroots Approach to the PD in Blended Learning in FEHD***

The grassroots approach to PD in blended learning in FEHD had a positive impact on the implementation of blended learning among the teaching staff, including the capacity building of blended learning among the staff, the variety of online learning activities in Moodle, and the culture development of blended learning as a professional learning community.

First, in the last 4 years, by understanding the needs and providing corresponding support for the teaching staff, TEL-Hub managed to establish buy-in among them with respect to blended learning. According to the logging record in TEL-Hub, a number of teaching staff sought support and participated in the hands-on workshops in a steady fashion. With the support provided, they were more willing to embrace a variety of online interactive learning activities in their courses. On the other hand, after implementing the blended learning practices, the majority of teaching staff was willing to share their experiences with their colleagues in formal and informal ways. For example, several teaching staff presented their promising blended learning practices in the university-level sharing sessions.

Second, since Moodle is the major learning and teaching platform at EdUHK, the analysis of the usage data on Moodle could shed light on the changes of using online learning activities among the teaching staff in FEHD. The Moodle LMS usage data was collected from the Office of the Chief Information Officer (OCIO) at the EdUHK from 2014 to 2015 academic year onwards. There were three different types of online learning and teaching activities based on the features of the Moodle: resource-based, response-based, and interactive. Resource-based type characterises courses in which the teaching staff use the system as a repository of learning and teaching resources that include files and web links. Response-based type refers to courses that make use of the assignments and quizzes on the platform, where students are required to complete quizzes and receive feedback based on their responses. The teaching staff may provide feedback by providing their students with online resources. The courses classified as interactive type often include activities that support student interactions and collaborations with peers, such as forums, chats, and wikis. Teaching staff and students could interact and collaborate synchronously and/or asynchronously. A fourth category titled “no activity” include courses where no online learning resources or activities were implemented or no one ever logged into the course.

The comparison of yearly results of the Moodle courses categorised by types of activity indicated an increase in the adoption of interactive online learning activities. A majority of the teaching staff used Moodle to engage their students in response-based and interactive online learning activities. Ninety-five per cent of the teaching staff used Moodle with response-based and interactive online learning activities. Almost half of the courses in FEHD integrated interactive activities on Moodle in 2017–2018, with an increase of around 20% compared to that 3 years ago (See Fig. 2.1).



**Fig. 2.1** FEHD Moodle usage report (2014–2015, 2015–2016, 2016–2017, and 2017–2018)

The increase of interactive activities may account for the ongoing pedagogical-oriented support provided by TEL-Hub and the blended learning ambassadors. The pedagogical-oriented workshops and consultation sessions were more likely to influence their perceived usefulness of online interactive activities in Moodle, as well as enhance their skills of blending online interaction in their courses. In the last 4 years, the majority of the teaching staff (approximately 60% out of 218) joined in the workshops several times to learn different features of Moodle. They were intrigued by how online technologies can be integrated in teaching and found it easy to understand. They found the workshops helpful and adopted the online technologies in their courses. On the other hand, the blended learning ambassadors shared with their colleagues how online technologies enhanced the student online learning experiences in poster format (Fig. 2.2). For example, one of the colleagues commented “Students considered this online multi-media toolkit inspiring and found the learning materials useful in their understanding of Positive Psychology”. In sum, the professional learning community allowed the teaching staff to share their perceptions and practices on blended learning when learning from and with peers. It is more likely that they were motivated and convinced by the actual practices by their colleagues (MacDonald & Campbell, 2012).

Furthermore, over the last 4 years, the blended learning practices experienced a transition from engaging students online towards the redesign for linking up with F2F activities. Apart from using Moodle for online activities, the blended learning ambassadors and TEL-Hub staff shared how the easy-to-use online technologies enhanced the student engagement in class on an ongoing basis. As the lack of



Blended Learning for University Enhancement @ EDUHK – Stories from the Frontline

Dr. Wan Lai Yin Sarah & Dr. Chung Yiu Bun

Department of Psychology

Online Lessons for PSY2050 Basic Psychology for Educators: Useful Concepts from Educational and Positive Psychology: My Learning Journey

This course provides the basic knowledge of major psychological perspectives in understanding human functioning. It also highlights the applied value of psychological knowledge in education and related fields.

As this course consists of 2 mass lecture groups (with more than 200 and 400 students respectively), the learning and teaching activities need to be very interactive and stimulating to enhance students' engagement and participation. Students in this course are motivated learners.

Prior to this course, we have used a wide range of online educational technologies including collaborating and posting tools (e.g. Padlet), game-based interactive platforms (e.g. Kahoot!) and interactive online classrooms (e.g. Adobe Connect). Besides, we have created videos with simple tools such as Camtasia. Building on what we have done, an online multi-media toolkit is developed this year to promote independent learning.

**Student Engagement and outcomes**

CONCEPTS APPLIED IN MORE THAN **100** PRESENTATIONS

**630** STUDENTS PARTICIPATED

STUDENTS' SELF-REFLECTION ON THEIR OWN CHARACTER STRENGTHS

**Implementation**

This course is a mixture of online and face-to-face sessions. It is innovative in that an **online multi-media toolkit** comprising mini video lectures, reading, polling, and discussion forum, has been systematically integrated to the course for enhancing students' learning. It also facilitates interactive in-class collaborations and online discussions. Students had learned about some basic knowledge of Positive Psychology in a face-to-face lecture and then they worked on the toolkit for the topic "Strength-based Perspective to Development" that focused on Character Strengths, which is one of the key concepts of Positive Psychology.

Students were required to apply their knowledge of Character Strengths in their small group collaborative presentations on coping with personal conflicts and struggles. The presentation was part of the graded activities in tutorials. As an extension activity, students were encouraged to choose their top 5 character strengths in an online polling where they also read the overall results of class.

**Reflections: Challenges and Feedbacks**

Students considered this online multi-media toolkit inspiring and found the learning materials useful in their understanding of Positive Psychology. Some very encouraging observations included students successfully related their knowledge from online learning to their collaborative learning in the face-to-face tutorial.

A particular challenge encountered was that not all students actively participated in the discussion forum. It was possible that some students were more reluctant to share their own ideas or thoughts in a forum setting where everyone in the course could read their posts. We suggest that in the next offering of course, multiple discussion forums should be created based on students' tutorial groups.



Fig. 2.2 Blended learning poster (with permissions from Dr. Wan Lai in, Sarah and Dr. Chung Yiu Bun)

interaction was one of the common barriers faced by the teaching staff, they were interested and joined the workshops and consultation sessions in TEL-Hub. As a result, they integrated online technologies such as *Mentimeter*, *Kahoot!*, and *Padlet* in the courses to enhance student in-class interaction.

It is important to have ongoing support from the professional learning community and the consultation sessions offered by the TEL-Hub staff. With the ongoing support, the teaching staff could share their struggles, reflect with peers, and consult with the TEL-Hub staff on how to adopt online technologies (Garrison & Vaughan, 2013). As a result, they gradually came to understand the interrelated relationship between F2F and online learning activities and developed a clearer concept of how to redesign the courses, which could help scaffold students' knowledge building process by providing them spaces to express their thoughts and exchange ideas in online settings and receive feedback from the teaching staff in online and F2F lessons.

The PD in blended learning not only influenced individuals but also contributed to the collaboration among the teaching staff for team-taught courses. They built up their teaching team as a professional learning community to share teaching resources in a common database, as well as had a team meeting to collaboratively redesign the courses to enhance student learning outcome achievement by adopting blended

learning, while the TEL-Hub staff provided hands-on training for the online technologies and how to blend for them.

In sum, adopting the grassroots approach towards PD in blended learning built up the capacities for blended learning among the teaching staff and thus made a difference in transforming the blended learning practices in FEHD over the years.

## 2.4 Issues and Challenges

During the implementation process of the grassroots approach, there were some challenges:

- Unbalanced development in infrastructure
- Absence of recognition of the teaching staff who are proactively adopting blended learning
- Insufficient trust from the teaching staff
- Lack of student capacities for blended learning

First, the infrastructure may hinder the sustainability of PD (Porter & Graham, 2016). The infrastructure on campus may not keep up with the changing online technologies, such as low bandwidth. Although the emerging online technologies are appealing, the lack of infrastructure support made the teaching staff apprehensive to adopt them in the classroom, since the quality of learning and teaching might be compromised. Such issue goes beyond having sufficient hardware and network facilities in place. For example, in recent years, the majority of software offers ongoing updates for the users who subscribed to the products. However, the updated versions of the software may not be compatible with the existing devices used by the teaching staff, which may impede the teaching staff's continuous usage of emerging online technologies and discourage their motivation to participate in PD. Under such circumstances, it is difficult for the support staff to find suitable online technologies to meet the PD needs as well.

In addition, the absence of recognition of the teaching staff who proactively adopt blended learning may discourage their motivation to participate further PD in blended learning. Currently, one of the indicators of teaching appraisal in the faculty is the student evaluation of teaching (SET) scores. Although blended learning has the potential for learning and teaching enhancement, it could not ensure the appreciation from the students. As blended learning may affect the student satisfaction, the teaching staff may become hesitant to further implement blended learning and feel discouraged to participate in PD in blended learning. Blended learning requires the teaching staff to take risk on exploring online technologies, redesigning the lessons, and interacting with students online. It is important to recognise their efforts and provide ongoing support for them to explore blended learning (Garrison & Vaughan, 2013).

Furthermore, even though the TEL-Hub staff provided ongoing support in terms of introducing emerging online technologies, as well as how to blend with F2F

lessons, the difficulty on building trust with teaching staff still persists. They may not be willing to discuss with the TEL-Hub staff about their ideas, since some of them consider the TEL-Hub staff lacking subject knowledge. On the other hand, the TEL-Hub staff found it difficult to start conversations with the teaching staff who feel less comfortable with online technologies (Porter & Graham, 2016).

Another challenge is the lack of student capacity for blended learning. Although the students were competent in using online technologies, they are less comfortable learning online independently (Al-Samarraie & Saeed, 2018). As a result, the teaching staff may be reluctant to implement blended learning. The engagement of students in the blended learning environment could be enhanced by providing them with appropriate support such as scaffolding them to learn how to learn online and providing them with guidance when using the different features of the online learning platform or application.

## 2.5 Conclusion and Implications

This chapter examines how the grassroots approach to PD was adopted to enhance the capacity of the teaching staff for blended learning in a faculty at the university. By taking a case study at the leading faculty at EdUHK, we explored the grassroots approach that was implemented via two key components, namely, department-based blended learning ambassadors and needs-driven and just-in-time support in FEHD. Overall, the efforts on these components of PD showed a positive impact on the teaching staff's adoption of blended learning, particularly their reflection on their blended learning capacity building and PD cultural development. The outcome showed that grassroots approach could be served as an effective method for scaling up blended learning adoption among teaching staff, because it encourages peer support, situates in the teaching contexts, and takes the teaching staff's needs into consideration.

Meanwhile, the challenges encountered in the process also allowed us to reflect upon the enabling and hindering factors when taking the grassroots approach of PD. With the lessons learnt, the following areas are emerged that need extra attention for the successful grassroots approach of PD for blended learning.

It is essential to build up trust and mutual understanding between the blended learning support staff and teaching staff. Despite the fact that blended learning support staff are experts in "how to blend", they may have insufficient understanding of the subject matter and clear ideas about the pedagogical focuses (i.e. "why to blend" and "what to blend"). This would require trust and mutual understanding between the blended learning support staff and teaching staff to facilitate effective communications and knowledge exchange so that PD for blended learning can be meaningful.

The support staff should constantly engage with blended learning ambassadors as they are the key driving force for the change. The blended learning ambassador system enriched the professional learning experience in the faculty and supported



those who had doubts about blended learning to transform their beliefs. The professional learning community with the accompanying support for peers to tackle the issues of blended learning enhanced the belief as well as the skills for blended learning. The support staff constantly engaged with blended learning ambassadors can not only trigger a continuous, iterative process for more teaching staff to develop, implement, revise, and re-establish their blended learning activities but also allow us to gain timely feedback from first-hand experiences and adjust PD strategies accordingly.

Gaining recognition and support from the leadership team is crucial for sustainability and scaling up. The grassroots approach of PD is not a one-off event but a continuous process of change. This, from the pragmatic perspective, would require the mobilisation of financial and human resources. As the change often does not happen instantly or sometimes not occur in appearance, it is important to maintain the support from the leadership level. One way of achieving this is to keep the leadership level informed about the progress and the challenges so that the leadership can plan ahead about the input needed for moving into the next level.

In summary, our experience demonstrated that the grassroots approach of PD can enhance the capacity of the teaching staff for blended learning in higher education. The key lessons learned provided us with invaluable insights; we believe when the above-discussed areas are considered, it is likely to have a feasible grassroots approach of PD and ultimately sustain and scale up institutional blended learning adoptions.

**Acknowledgement** The professional development in blended learning at the faculty level is part of Blended and Online Learning and Teaching (BOLT) project funded by the University Grants Committee (UGC) in Hong Kong.

## References

- Al-Samarraie, H., & Saeed, N. (2018). A systematic review of cloud computing tools for collaborative learning: Opportunities and challenges to the blended-learning environment. *Computers & Education*, *124*, 77–91. <https://doi.org/10.1016/j.compedu.2018.05.016>
- Bakah, M. A. B., Voogt, J. M., & Pieters, J. M. (2012). Advancing perspectives of sustainability and large-scale implementation of design teams in Ghana's polytechnics: Issues and opportunities. *International Journal of Educational Development*, *32*(6), 787–796.
- Bennett, S., Agostinho, S., & Lockyer, L. (2017). The process of designing for learning: Understanding university teachers' design work. *Educational Technology Research and Development*, *65*(1), 125–145.
- Boelens, R., Voet, M., & De Wever, B. (2018). The design of blended learning in response to student diversity in higher education: Instructors' views and use of differentiated instruction in blended learning. *Computers & Education*, *120*, 197–212. <https://doi.org/10.1016/j.compedu.2018.02.009>
- Bohle Carbonell, K., Dailey-Hebert, A., & Gijsselaers, W. (2013). Unleashing the creative potential of faculty to create blended learning. *The Internet and Higher Education*, *18*, 29–37. <https://doi.org/10.1016/j.iheduc.2012.10.004>



- Buchanan, T., Sainter, P., & Saunders, G. (2013). Factors affecting faculty use of learning technologies: Implications for models of technology adoption. *Journal of Computing in Higher Education*, 25(1), 1–11.
- Cowan, P. (2013). The 4I model for scaffolding the professional development of experienced teachers in the use of virtual learning environments for classroom teaching. *Contemporary Issues in Technology and Teacher Education*, 13(1), 82–98.
- Davis, H. C., & Fill, K. (2007). Embedding blended learning in a university's teaching culture: Experiences and reflections. *British Journal of Educational Technology*, 38(5), 817–828.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher Technology Change: How Knowledge, Confidence, Beliefs, and Culture Intersect. *Journal of Research on Technology in Education*, 42(3), 255–284. <https://doi.org/10.1080/15391523.2010.10782551>
- Esterhuizen, H. D., Blijnaut, S., & Ellis, S. (2013). Looking out and looking in: Exploring a case of faculty perceptions during E-learning staff development. *International Review of Research in Open and Distance Learning*, 14(3), 59–80.
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95–105.
- Garrison, D. R., & Vaughan, N. D. (2013). Institutional change and leadership associated with blended learning innovation: Two case studies. *The Internet and Higher Education*, 18, 24–28.
- Graham, C. R. (2006). Blended learning systems: Definitions, current trends, and future directions. In C. Bonk & C. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs* (pp. 3–21). San Francisco, CA: Pfeiffer.
- Graham, C. R., Woodfield, W., & Harrison, J. B. (2013). A framework for institutional adoption and implementation of blended learning in higher education. *The Internet and Higher Education*, 18, 4–14. <https://doi.org/10.1016/j.iheduc.2012.09.003>
- Gregory, M. S.-J., & Lodge, J. M. (2015). Academic workload: The silent barrier to the implementation of technology-enhanced learning strategies in higher education. *Distance Education*, 36(2), 210–230. <https://doi.org/10.1080/01587919.2015.1055056>
- Hew, K. F., & Brush, T. (2007). Integrating technology into K-12 teaching and learning: Current knowledge gaps and recommendations for future research. *Educational Technology Research and Development*, 55(3), 223–252.
- Hunzicker, J. (2011). Effective professional development for teachers: A checklist. *Professional Development in Education*, 37(2), 177–179.
- Johnson, L., Adams Becker, S., Cummins, M., & Estrada, V. (2014). *2014 NMC technology outlook for Australian tertiary education: A horizon project regional report*. Austin, TX: The New Media Consortium.
- Keengwe, J., Georgina, D., & Wachira, P. (2010). Faculty training strategies to enhance pedagogy-technology integration. *International Journal of Information and Communication Technology Education*, 6(3), 1–10.
- Kennedy, G., Jones, D., Chambers, D., & Peacock, J. (2011). Understanding the reasons academics use – and don't use – endorsed and unendorsed learning technologies. *ASCILITE 2011 – The Australasian Society for Computers in Learning in Tertiary Education*, 688–701.
- Laurillard, D. (2005). E-learning in higher education. In P. Ashwin (Ed.), *Changing higher education: The development of learning and teaching* (pp. 71–84). London: Routledge.
- Lawless, K. A., & Pellegrino, J. W. (2007). Professional development in integrating technology into teaching and learning: Knowns, unknowns, and ways to pursue better questions and answers. *Review of Educational Research*, 77(4), 575–614.
- Maddux, C., & Johnson, D. (2005). Information technology, type II classroom integration, and the limited infrastructure in schools. *Computers in the Schools*, 22(3–4), 1–5.
- Macdonald, J., & Campbell, A. (2012). Demonstrating online teaching in the disciplines. A systematic approach to activity design for online synchronous tuition. *British Journal of Educational Technology*, 43(6), 883–891.
- McGrail, E. (2005). Teachers, technology, and change: English teachers' perspectives. *Journal of Technology and Teacher Education*, 13(1), 5–24.

- Mirriahi, N., Alonzo, D., McIntyre, S., Kligyte, G., & Fox, B. (2015). Blended learning innovations: Leadership and change in one Australian institution. *International Journal of Education and Development using Information and Communication Technology*, 11(1), 4–16.
- Moskal, P., Dziuban, C., & Hartman, J. (2013). Blended learning: A dangerous idea? *The Internet and Higher Education*, 18, 15–23.
- Norberg, A., Dziuban, C. D., & Moskal, P. D. (2011). A time-based blended learning model. *On the Horizon*, 19(3), 207–216.
- Philipsen, B., Tondeur, J., Pareja Roblin, N., Vanslambrouck, S., & Zhu, C. (2019). Improving teacher professional development for online and blended learning: A systematic meta-aggregative review. *Educational Technology Research and Development*, 67(5), 1145–1174. <https://doi.org/10.1007/s11423-019-09645-8>
- Porter, W. W., & Graham, C. R. (2016). Institutional drivers and barriers to faculty adoption of blended learning in higher education. *British Journal of Educational Technology*, 47(4), 748–762.
- Torrisi-Steele, G., & Drew, S. (2013). The literature landscape of blended learning in higher education: The need for better understanding of academic blended practice. *International Journal for Academic Development*, 18(4), 371–383.
- Trust, T., Krutka, D. G., & Carpenter, J. P. (2016). “Together we are better”: Professional learning networks for teachers. *Computers & Education*, 102, 15–34.
- Wanner, T., & Palmer, E. (2015). Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course. *Computers & Education*, 88, 354–369.
- Wicks, D. A., Craft, B. B., Mason, G. N., Gritter, K., & Bolding, K. (2015). An investigation into the community of inquiry of blended classrooms by a Faculty Learning Community. *The Internet and Higher Education*, 25, 53–62.
- van As, F. (2018). Communities of practice as a tool for continuing professional development of technology teachers’ professional knowledge. *International Journal of Technology and Design Education*, 28(2), 417–430.
- Van den Bergh, L., Ros, A., & Beijaard, D. (2014). Improving teacher feedback during active learning: Effects of a professional development program. *American Educational Research Journal*, 51(4), 772–809.
- Vaughan, N. D. (2010). A blended community of inquiry approach: Linking student engagement and course redesign. *Internet and Higher Education*, 13(1/2), 60–65.
- Vaughan, N., & Garrison, D. R. (2006). How blended learning can support a faculty development community of inquiry. *Journal of Asynchronous Learning Networks*, 10(4), 139–152.
- Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Harvard Business School Press.