Faculty Learning Communities: A Model for Supporting Curriculum Changes in Higher Education

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This article reports on a faculty learning community (FLC) as a professional development model for faculty in an English—medium university in the United Arab Emirates. The authors describe how the introduction of a new learning and teaching technology, in the form of iPads, resulted in many of the faculty feeling unsure about their pedagogy. A face-to-face FLC was set up with an on-line component. The FLC served as a forum to discuss issues, resolve these problems and develop sound pedagogy in accordance with the culture of the university. The authors present data from blogs, discussion notes and questionnaires, and they discuss the strengths and limitations of a FLC as a model of professional development (PD) in this particular context.

There has been considerable literature on the need for and expectations of professional development at higher education institutions (Elton, 2009; Mundy, Kupczynski, Ellis & Salgado, 2012). As is noted in the literature, professional development can take many forms such as peer observations (Bell & Mladenovic, 2008; Cosh, 1999; Lomas & Kinchin, 2006) and observations from supervisors (Gosling, 2002), as well as formal faculty appraisal (Murdoch, 2000). One of the criticisms of many of these forms of professional development is that they are top-down (Shortland, 2006) and may result in academic staff "going through the motions." Similarly, Elton (2009) points out that continuing professional development (CPD) in a higher education institution should recognize the need for adult learners to be involved in activities which are meaningful and immediately relevant. involves considering problems and how they might be solved.

A faculty learning community (FLC) is based on the concept of a community of practice. A community of practice recognizes that learning is a social and coconstructed activity which is situated in a particular context (Lave, 1991). According to Wenger and Snyder (2000) communities of practice are "groups of people informally bound together by shared expertise and passion for joint enterprise" (p. 139). The authors felt that a FLC as a model for professional development in this particular educational context may mitigate many of the criticisms mentioned above, and may act as a forum for reflection on practice and professional development. The FLC would be interdisciplinary but within the same institution, and it would include like-minded professionals. All faculty were faced with the challenges of the new curriculum changes, thus an expectation was that the interaction might develop naturally around common issues, questions and solutions.

Professional Development in Higher Education

Many institutions require that the faculty carry out some professional development activity to ensure reflection on practice with the aim of developing and learning new skills. The ultimate goal is that student learning improves (Brancato, 2003). Professional development is a process: a systematic observation, analysis and reflection of teaching practice including a wider variety of activities such as "discussion, investigation, experimentation with new practices. learning, expansion of knowledge, acquisition of new skills, and the development of approaches, stances, knowledge and work tools" (Shagrir, 2012, p. 23). It has been well documented that academics at all stages of their career are expected to be accountable for their professional development, and it has been noted that the type of professional development needs to be appropriate to the experience of the faculty member (Weller, 2009).

Professional development (PD) of teaching staff in K-12 education is a widely accepted part of the professional activity of teachers. However, it is not always seen as a crucial strand of academic faculty development in higher education. Teaching, research, and service comprise three components of an academic's professional duties, yet PD is not often considered part of these activities. Blanton and Stylianou (2009) suggest several reasons for this. One is that academics perceive themselves to be experts of their own discipline rather than teachers of it. A second reason is that teaching has always been traditionally a closed-door activity with considerable professional Thirdly, due to the pressure from independence. institutions to research and publish, there may be time constraints and other professional tensions. Finally, the very specific and specialized nature of an academic's area of teaching means that there is little empirical data on which to make decisions about appropriate professional development in a particular institution (Blanton & Stylianou, 2009).

Despite these constraints, there are two main reasons why PD is an inevitable and necessary part of an academic's life. The first is that the naturally changing educational environment requires academics to keep abreast of new developments and be life-long learners (Roscoe, 2002). Additionally, with technical innovation and change permeating every aspect of society, educators have been forced to keep up to date in order to facilitate knowledge and skill acquisition in the next generation. This is particularly significant in the context of this research where academics were tasked with using a new technological device in their teaching, as well as adapting the curriculum to incorporate more project-based learning. Fundamentally, as educators, faculty are role models for their students. Even though time constraints, management issues and multiple roles may detract from other professional activities, effective teaching is a significant aspect of an academic's role, and professional development is necessary to update, reskill and encourage life-long learning (Blanton & Stylianou, 2009; Roscoe, 2002; Weller, 2009).

The question arises as to what types of PD models are beneficial in a higher education context. Common activities are mentoring, peer observation of teaching, and collaborative projects on specific educational issues (Weller, 2009). It is clear from much of the literature that a collaborative, collegial activity, contextualized in the practices of academics, is a more viable and beneficial form of professional development. In order to create meaningful activities and reflection which are immediately relevant to the faculty member, a problembased approach is suggested (Elton, 2009). In reality, a problem-based approach would encourage teachers to reflect on their pedagogic practice and attempt to solve their problems. A situated perspective on learning and teaching around specific, real and timely problems would allow not only learning about specific pedagogic skills, but would also allow academics to reflect on their wider role in the institution and society. Askew and Lodge (2000) suggest, "Learning, in this model, involves reflective processes, critical investigation, interpretation, and reorganization analysis, knowledge" (p. 11). Naturally, reflection requires both dialogue and analysis, with justification explanation beyond mere description (Marcos, Sanchez & Tilleman, 2008). Thus, an FLC as a model for professional development was thought to be an appropriate forum for problem solving, support, reflection and learning.

Faculty Learning Communities

Faculty learning communities are based on the concept of a community of practice and the constructs underpinning these communities. These constructs derive from a social theory of learning (Eckert, 2006) which promotes a common practice, a common interest, regular joint activity and a commitment to shared

understanding (Wenger, 1998). Cox (2004) defines an FLC as a "cross-disciplinary faculty and staff group of six to fifteen members...who engage in an active, collaborative, yearlong program with a curriculum about enhancing teaching and learning" (p. 8). The common goal of an FLC may be to learn something together, work on a project, develop a professional activity or solve a problem. In some cases, the common goal may be to empower teachers who are managing a curricular change or the introduction of a new technological device (Nugent et al., 2008).

According to Wenger (1998), learning involves community, identity, meaning, and practice. Thus, in a professional setting, an effective way for adults to learn is through collaboration, cooperation, and interaction on topics and issues directly related to their professional activities. Through this interaction, meanings are discussed, shared, negotiated, and developed. It is the discussion of the ideas and the co-construction of knowledge that makes the learning and development more meaningful. The basic premise of this approach is that knowledge is not "owned," but "made" through social interaction (Vygotsky, 1986). Teaching is a highly social, situated activity, so teacher development should reflect this. Wenger (1998) points out, "Even when people work for large organizations, they learn through their participation in more specific communities made up of people with whom they interact on a regular basis" (p. 1). Thus, not only are faculty constructing knowledge together through an FLC: they are also formalizing and systemizing informal chats in corridors and teacher rooms.

In an educational context, an FLC can be a vital form of professional development as educational practices, including technological innovations, constantly change. Di Petta (1998) argues that in the light of these changes, "...faculty need new ways of working together to prepare for and shape their professional future" (p. 54). A further important aspect of an FLC is that participants are engaged in meaningmaking which involves shared experience over time and a commitment to shared understanding (Eckert, 2006). The FLC may be topic-based or cohort-based (Nuget et al., 2008). This article describes the former, where a group of teachers self-selected to meet regularly to enhance their knowledge of new technology in the classroom. Cox (2004) raises the question of whether experienced faculty need to be part of an FLC. Based on the literature, he concluded that an FLC can pay a crucial role in bringing together faculty who can support each other and stimulate ideas in an environment where faculty may feel burnout or bored. Eddy and Mitchell (2012) also suggest that FLCs can refresh and re-energize faculty and teaching, and the process of discussion, sharing and reflection can disprove the notion that teaching is an isolated

activity. For mid-career and senior faculty, FLCs are opportunities to engage in more scholarly work through a systematic investigation of classroom practices, leading to scholarly teaching (Glowacki-Dudka & Brown, 2007). In the context described here, most of the faculty had more than 10 years of teaching experience, so they were considered mid-career faculty. However, despite their experience, in the light of major curriculum changes there was a perceived need that faculty required the opportunity to share, discuss, solve problems, and construct meanings and understanding about the new technology.

On-line Faculty Learning Communities

Faculty are notoriously busy, and there is often very little time given to professional development. A possible solution to this problem may be found in online FLCs. Johnson (2001) defined on-line FLCs as "designed communities using current networked technology" (p. 45) to collaborate remotely with each other on tasks and activities. One advantage of a virtual community is the greater opportunity for introverts to participate. However, one disadvantage is that on-line communities are more likely to suffer from attrition Similarly, Sherer, Shea, and (Johnson, 2001). Kristensen (2003) reported on how technology supported an FLC of professors through a professional development portal in a higher education institution. The aim of the FLC was to keep up with technological changes in the education field, while at the same time leveraging the benefits of this technology. participants used chat rooms, listserves, webcasts and faculty development portals in order to expand the number of participants and continue to work collaboratively in the face of the challenge to have faceto-face meetings. As can be seen, on-line FLCs can transcend time and place, can be an effective way for faculty to learn and grow, and can give all participants, regardless of confidence, an opportunity to provide ideas and suggestions. However, the problem of attrition is a real one. The FLC in this study merged on-line with face-to-face meetings for the reasons outlined above. The strengths and limitations of this approach will be discussed further in the paper.

Methodology

Context

A federal university in the United Arab Emirates was tasked with introducing iPads as a learning and teaching tool in all foundation language classrooms in Fall 2012 with a view to providing iPads out across the university in degree granting colleges by Fall 2014. This required a

considerable change in planning, materials, and curriculum, and it therefore required training for teachers. The training took place September 2012 to February 2013. The training took the form of weekly input sessions and workshops. A more expert colleague often conducted these. After February 2013, there was to be no more institutional training, and faculty could instead consult with an iPad "expert" in the department.

The authors felt that this sudden withdrawal of support could leave some faculty feeling vulnerable (Nugent et al., 2008). Similarly, it was also felt that the top-down training, however useful, was not necessarily focused on identified challenges, and it would be beneficial and meaningful to continue professional development activities which were based around specific concerns of teachers. Thus, an FLC was formed based on the notion that communities emerge and grow based on issues which are timely and meaningful to all members (Wenger, 1998, p. 2). The first meeting introduced the concept of the substitution, augmentation, modification, and redefinition (SAMR) model (Puentedura, 2006). The SAMR model offers a framework for task design, where technology is the primary medium for content delivery and student participation. The model describes four levels of task design and what the addition of technology achieves in relation to the original task. At the substitution level of the model, technology serves as a substitute for paper or a textbook in terms of content delivery. In regards to student task completion, substitution occurs when students are asked to type something rather than write it on paper. In this level of the model, students without technology could just as easily complete the task. At the augmentation level of the model, the technology augments the task. The technology provides functional improvement in the area of content delivery, and student interaction with the task. In the upper two levels of the model, task design becomes significantly different (Jonassen, Howland, Marra & Crismond, 2008). At the modification level, the task is redesigned, and the technology is used to enhance the learning experience in a way that could not be achieved without the aid of the technology. Finally, in the last level of the SAMR model, redefinition occurs when the technology has allowed the task to be completely redesigned (often by the students themselves). This model focused meetings on how to enhance student learning through modification and redefinition of tasks through the use of iPads. FLC meetings were held biweekly in a meeting room, with participants taking it in turns to bring coffee and snacks. The meetings were held at the end of a busy teaching day. The snacks, therefore, created an atmosphere of relaxation and collegiality. All participants were motivated to join due to the sudden change in the direction of the curriculum,

and because the earlier input sessions had not focused on personal challenges and concerns.

Participants

There were eight initial members of the FLC and one additional member joining a month into its inception. The authors were initiators, participants and facilitators in the FLC. Wenger (1998) pointed out that communities are self-directing, though communities do benefit from internal leadership; therefore, one of the authors was an iPad expert, as it was felt that there was a need for such expertise in the FLC to support problem solving. Three of the four departments in the General Education Program were represented. Teaching experience ranged from a few years to more than twenty. iPad user ability ranged from beginner (virtually no prior experience using the device) to expert user (the faculty trainer). Apart from one, none of the members had taught with the iPad before. As can be seen from Table 1 below, most of the faculty were experienced teachers.

Data Collection

Data were collected from three sources. The first was the blog on which the participants posted. Participants were encouraged to share their experiences, concerns and questions in a bi-weekly blog posting. The blog posts were considered part of the FLC as the contributions were highly personal, significant and therefore meaningful. Some members were less vocal in the meetings, but would write regularly on the blog. Therefore, we found the blog contributions to be an integral part of the community. The blog posts tended to talk about concerns and issues, and they were often written just after a lesson. These were not always explicitly referred to in the meetings, but the participants would often talk about the same topic. There were a total of 27 posts over 16 weeks from eight participants (Table 2).

The second source of data were the notes which the facilitators took during the FLC meetings. The notes were taken on an iPad and immediately emailed to the participants after each meeting. The third source of data was a questionnaire which was sent to each participant four months after the end of the meetings. The questionnaire was sent via a Google form, and the software compiled the answers to protect anonymity. The survey asked participants to comment on their experience of being in an FLC, the strengths, and suggestions for its future form. Six participants completed the questionnaire. A list of questions can be seen in Appendix A. The questionnaire was anonymous and prior informed consent had been obtained.

Data Analysis

This was a qualitative study incorporating qualitative data from blog posts, meeting notes and questionnaires. The blog posts and meeting notes were studied for themes. Although the authors were looking for evidence of learning and development, there were no a priori codes or categories (Richards, 2003). Once the main themes had been agreed on, the authors examined the data, categorizing comments according to the themes. The questionnaire results were examined for positive and negative comments. The aim of the questionnaire was to get both feedback and reflections on the FLC for further planning. Due to the very detailed and varied responses, it was felt that as an evaluation tool, positive and negative grouping of comments would be appropriate.

Results

In this section we will present the results from the blog posts, meeting notes, and questionnaires. The first part will present data from the blog posts. The themes, which emerged over time from the blog posts, were all related to issues and concerns about incorporating new technology. These themes were "a crisis of confidence," "technical issues," and "changes and developments in pedagogy." The second part will present data from the meeting notes. The meeting notes reflected changes and shifts in discussion focus over the period of the semester from technical issues to confronting changes in pedagogy. Applications and Wi-Fi, which had been the focus of discussion and frustration, evolved into theory-based discussion involving the sharing of ideas on teaching and learning with the device in ways that enhance the student experience. The final part will present data from the questionnaire. As mentioned earlier. the questionnaire aimed to elicit feedback in order to evaluate the FLC as a model for developing pedagogy, as well as to inform future activities. Themes emerging from the questionnaire were the practical nature of FLC, cooperation and collegiality, pedagogical development and limitations and weaknesses.

Blog Posts

Crisis of confidence. Crisis of confidence emerged through comments related to how faculty were perceived by students. Teachers, who were unfamiliar with the device, were often worried about looking unprofessional in front of their students. This was a common theme, along with a feeling of loss of control over student engagement in the classroom. It is worth pointing out that most of the participants were experienced teachers, but many felt insecure with the new technology. One participant mentioned, "Then we went over a reading text they had already done for key

Table 1

Member Profiles of Faculty Learning Community

Gender	Qualification	Years teaching	iPad user	Discipline
F	MA	Less than 5	Experienced	Advising
F	MA	More than 5	Experienced	Advising
F	MA	More than 20	Beginner	Advising
M	PhD	More than 20	Beginner	ESL
M	PhD	More than 15	Beginner	ESL
F	PhD	More than 20	Beginner	ESL
F	MA	More than 20	Developing	Global Awareness
F	EdD	More than 20	Developing	ESL
F	MA	More than 10	Expert	ESL/Global Awareness

Table 2
Number of Posts

Poster	Total number of posts
F MA Less than 5	3
F MA More than 5	4
F MA More than 20	2
M PhD More than 20	0
M PhD More than 15	3
F PhD More than 20	2
F MA More than 20	2
F EdD More than 20	4
F MA More than 10	7

concepts. We agreed on these, and I was projecting, so I was tapping the concepts to highlight them, but my fingers were too fat and I was highlighting whole chunks, and then on screen, trying to unhighlight! Not very professional." Here the teacher illustrates a common issue where faculty were not comfortable using the device, and therefore smooth delivery of content was often stalled as teachers managed with iPad functions or features that were unique to the device. It is clear that this faculty member was particularly concerned with how he/she looked in front of the students. In relation to this, teachers' perceived self-efficacy has been found to be more important than knowledge and skills in successful use of technology in the classroom (Ertmer & Ottenbreit-Leftwich, 2010). Weston (2005) refers to this lack of confidence as a "second-order obstacle" "intrinsic barrier" to technology or integration.

Teachers also experienced crisis of confidence when they felt they lacked the necessary knowledge. This was frustrating for faculty who were experienced educators. Ertmer and Ottenbreit-Leftwich (2010)

pointed out that even experienced teachers are constant novices in terms of knowledge of technology, as it is changing daily, hence the frustration. One participant wrote, "Learning a huge amount, but still aware my technical knowledge is limiting/frustrating me."

As well as feeling a lack of knowledge and experience, some teachers wrote about how difficult it was to be creative. This also affected their confidence. Although teachers were familiar with the SAMR model (Puentedura, 2006) and aware that in order to enhance student learning they needed to be working in the upper part of the model (modification and redefinition), one teacher commented on the lack of creativity: "Looking forward...I am hoping to come up with some brilliant ideas for upcoming lessons. We will begin our problem-based learning project following the break, so I have been trying to brainstorm some creative ways to include the iPad but haven't gotten too far yet." We can see a faculty member wanting to be creative, but at the same time being restricted by lack of knowledge of a new device and its impact on the curriculum. The participant is dealing with curriculum issues, as well as lack of confidence in herself/himself.

Technical issues. Issues with infrastructure and other technical problems in the iPad classes were recurring issues in discussions. Most applications, or activities on mobile devices are web based, and submitting work for feedback requires wireless and storage space. The biggest issue was the Internet bandwidth and the fact that students would proceed at different speeds though an activity in which everyone was supposed to be working at the same pace. One teacher wrote in his/her blog: "The problem was that wireless got really slow and many could not get the question while others were answering two questions ahead of others." This was clearly very frustrating as one of the applications, which had been presented in the input sessions in earlier training, was Nearpod, an application that meant students had to work at the pace set by the teacher's iPad. The participant had taken a risk by trying out the application, but had then been constrained by technical challenges. Lesson planning and everyday activities also became logistically challenging as participants tried to find the most efficient way for students to submit their work. One participant wrote, "Looking back, the biggest technical challenge has been finding a efficient way for students to submit their work....still don't know what we're going to do about that...unless webdav comes through!" Technical issues were a common theme in the blogs, demonstrating that these challenges dominated thinking and reflection on using iPads. It was expected that the on-line FLC would focus on reflections of teaching and learning, and although there were some, the reality of the technical side of using new technology took over.

Changes and developments in pedagogy. As mentioned previously, members were familiar with the SAMR model (Puentedura, 2006). Participants wrote in their blogs about both successful lessons and less successful lessons when incorporating the iPad. The SAMR model had been introduced in the first meeting as a possible framework to use when evaluating teaching and learning using iPads. The SAMR model encourages teachers to reflect on their lesson design and learner experience. Teachers can measure the success of their lesson design in terms of whether the mobile device being used modifies or redefines the learning Lessons within the substitution and augmentation levels of the SAMR model are fine initially, but as teachers become more experienced designing lessons for mobile technology, they should be leveraging the device to enhance learning. participant wrote about a successful experience: "High points today were when students collaborated to fill in a chart—this was due to the disadvantages of iPads and needing two pages open at the same time. One had the text open, the other the chart, and they worked really well together and were on task." The participant reflects on how he/she was able to enhance the lesson

through iPad use, at the same time overcoming a pragmatic challenge.

Among the goals of mobile learning is to bring the world into the classroom without leaving it or to engage with people outside the classroom while physically This relates to the different levels of inside it. modification in the SAMR model. The participant below wrote about his/her experience in enhancing learning as well as commenting on the success of the lesson. He/she is able to evaluate the experience with reference to the levels of engagement: "This lesson had full engagement, and the great thing was students were logging into their Instagram accounts and posting their experience with their Instagram followers. spontaneously shared comments they had received on posts with us as the lesson went on, thereby bringing the world into our classroom in real time."

The blog posts covered the main themes outlined above. Many of these themes were not brought up in the meetings, but the participants were able to share their experiences, both positive and negative, through the blogs. Although the on-line FLC component was set up as an added strand to the FLC, in fact it seems that it was a significant space to reflect on teaching, share frustrations, and make experience meaningful. Some participants may not have shared these experiences in a face-to-face meeting, but the blog gave them the confidence and opportunity to write. Not only did the writing of the blog help to construct meaning and knowledge about using iPads, but also reading other participant posts' also developed understanding. Just as in the meetings, on the blog there was a gradual shift in focus from technical issues to pedagogical concerns. In fact, many participants commented on the lack of enthusiasm they felt towards the end of the semester. One participant posted that he/she was a "paper addict." In effect he/she had not found a way to leverage the device to be working in the upper region of the SAMR model (modifying or redefining the lesson) and felt that there was no point in using the device if he/she could not transform the learning experience.

Meeting notes

Shifts in perceptions of issues and concerns. The notes from the FLC meetings demonstrated a marked shift of emphasis with regard to concerns, experience, and confidence. The main theme noted was the transition from *enthusiasm* to *confidence* to *boredom*. The topics of discussion in the first and second months were exclusively about the specific applications for iPads and how to use them. There was a lot of discussion about different applications and their aims. A month later the discussion notes were markedly different. Participants discussed topics such as the long-term nature of the curriculum with regard to incorporating iPads and the need

to now readdress the curriculum aims and assessment. This suggests that for the first few months, faculty were engaged with the new technology and were incorporating it into their teaching, as well as looking long term and considering how the curriculum and assessment might be impacted. month later the content of the meeting was almost all demonstrations. Several participants demonstrated how they had used an application in class, while others chose specific applications to talk about. This major shift in four months suggests that participants felt more confident with using the new technology to the extent they wanted to share activities and demonstrate to colleagues. This was a far cry from the first meeting in which all faculty were nervous about how to use the applications. In the fifth month the topics of conversation demonstrated boredom with the iPad and a general frustration that faculty felt learning was not necessarily enhanced. There was also a preference to spend more time preparing materials that they know will work rather than spending time preparing iPad specific materials. This movement in thought and experience can be understood through the lens of research on motivation by Herzberg (1968), which has been replicated in business and is not just applicable to education. According to Herzberg's foundational research, six motivational factors are: (a) achievement, (b) recognition for achievement, (c) the work itself, (d) responsibility, (e) growth, or (f) advancement. When iPad adoption became difficult or stressful, teachers experienced a drop in motivation and, without a resurgence of one of the seven factors above, lost interest in putting the time and energy into the implementation process. As noted by Bates (2000), it is essential when integrating technology to identify inhibiting factors and to address these so that teachers can move forward. The teachers had initially been very enthusiastic about using the iPad in the classroom. However, this was not sustained due to a perceived lack of value. Some faculty felt that learning would be more enhanced by not using the iPad as faculty noted no qualitative difference in the learning of students. Thus, by the fifth month, many faculty were leaving the iPad aside for most of their lessons and using materials previously prepared.

Ouestionnaire: Reflections on the FLC

Practical nature. The most common theme from the questionnaire results was the practical nature of the FLC. Since it was practical, it was therefore meaningful. The FLC was described as being hands-on and interactive. Another positive feature of the FLC was its cross-disciplinary nature. Most PD activities in the university are department-specific, so participants enjoyed the opportunity to discuss a common issue with faculty from other departments. The fact that the FLC had a common focus on which to base the discussions was also a positive factor of the FLC. The emphasis on practical techniques made the topics meaningful and

timely, as they could all go into class the following day with new ideas. The practical aspect of the community stemmed also from the problem-based focus of the group. One participant commented on the opportunity to work out problems together and troubleshoot. The comments reveal the importance of having a common goal, which relates to a specific challenge shared by all participants. The common goal structures the discussion and the outcome.

Cooperation and collegiality. Cooperation and collegiality were also seen as a positive aspect of the FLC. Many participants commented on the fact that the community gave them a chance to work cooperatively and listen to colleagues describe their practice. Ideas came from the participants themselves, demonstrating that one did not need to be an expert iPad user to try out new pedagogy. The FLC was a way of seeing into others' classes. One participant wrote, "So much of teaching is being on your own in the class, you wonder what others are doing." In other words, discussion of teaching is not just sharing, but opening up the doors of our classrooms so that we do not feel so isolated (Eddy & Mitchell, 2012). In fact, one participant suggested a follow-up to the FLC could be observing each other's lessons. The participants also noted collegiality as a significant feature of the community in terms of flexibility and "comradeship." This was felt to be in stark contrast to the top-down training that had been provided in the first semester. One participant commented: "It was also devoid of anyone in a managerial position which made it more enticing and gave us the courage to voice our frustrations without fear of reprisals."

Pedagogical development. Comments suggested that participants did develop their pedagogical knowledge or confidence through participating in an FLC. Participants mentioned that they had more confidence in managing the device and the applications. They also commented on the fact that they know more about the effectiveness of the applications. One of the aims of the FLC had been to introduce the SAMR model (Puentedura, 2006) in order to structure development of pedagogy from substation to modification and redefinition. Some participants mentioned how the FLC had helped them learn about applications and the SAMR model. This suggests that even if the participants had not yet reached the level of redefinition in their teaching with iPad, the SAMR model had become part of their teaching conceptual framework.

Confidence was a theme as part of pedagogical development. The participants described how the community supported their teaching with the iPad. Although support does not necessarily mean that teaching is enhanced, it is important to note the very short time frame. Faculty had had to incorporate the

iPad into teaching in one semester. As a result, both having support at the level of sharing ideas and gaining confidence were important parts of incorporating the iPad into pedagogy. participants appreciated the opportunity to share ideas and discuss problems in a safe environment. An interesting comment was made by one of the participants with regard to the community giving confidence—not immediately, but some time after the end of the community—as the questionnaire was given in the semester following the FLC. participant mentioned that now, in the second year of iPad initiative, he/she feels more confident: "Having put the iPad to one side at the beginning of the semester and then told to prioritize it now, I can say that I feel quietly confident about much of what I am doing." It seems that retrospectively the participant feels the benefit of the community.

Limitations and weaknesses. Although the feedback was positive, there were some areas in which the participants felt dissatisfied and suggested changes for the next time. The most common points were related to the practical aspects of the FLC in terms of the number of participants and the timing of the meetings. In relation to the composition of the group. participants mentioned the need to have more members from different departments and more commitment from members to attend regularly. This comment suggests also that the attrition that was felt towards the end of the semester impacted the atmosphere of the meetings. Two participants mentioned the timings of the meetings, which were held from 4:00 to 5:00 at the end of a busy teaching day. The earlier comment related to commitment reflected the fact that some members were either too tired to attend or came straight from class, so they were late due to students holding them back.

Discussion

From the literature on PD in higher education, several features emerge from across the research. There seems to be four main characteristics for PD to be appropriate in a faculty or academic environment. The PD should be:

- Collective: There should be groups of likeminded professionals who have chosen to join the community to pursue a common goal (Eckert, 2006).
- Collaborative: There needs to be a sense of collegiality, flexibility and opportunity for sharing and advising (Weller, 2009; Wenger, 1998).
- Meaningful and contextualized: The community needs to focus on real, actual and timely activities which support the teaching

- and are contextualized in the faculty's work (Eckert, 2006; Wenger, 1998).
- *Problem-based*: The community needs to have a concern, question or problem as the focus of the discussions. This may be a particular problem that each participant has over time, a particular problem at each meeting, or a problem that the community may be set up to address. The aim is that the community focuses to solve the problem so that there is a real outcome (Elton, 2009; Klenowski, Askew, & Carnell, 2006).

This study aimed to explore the usefulness and effectiveness of a community of practice as a model for professional development in an English-medium university in the Arabian Gulf. The results indicated that, to a certain extent, the FLC fulfilled the criteria of an effective PD outlined above. However, there were also limitations and weaknesses.

A major strength was the collegiality and cooperation among members. In a profession where teachers often work behind closed doors, it is clearly a motivating factor to be part of a community and be mindful of the fact that teaching is not a solo activity (Eddy & Mitchell, 2012). Since the community focused specifically on iPads and their immediate use in the classroom, the participants were focused on a shared goal, which was timely and thus immediately meaningful to them. The topics discussed were contextualized in the real practices of the participants, as well as being part of the university's mission and goals (Brancato, 2003). The blog meant that participants could share thoughts and experiences outside the fixed meeting time of the community, which also promoted the timeliness of the activity. The blogs often described problems, and the meetings often focused on problems, giving the community a need to find solutions. The need for an outcome stemming from common problems also guided the discussion, a feature that is necessary in a restricted time frame.

In terms of limitations, the participants, including the authors, noted the following: many participants mentioned that the community would be more effective with more members. The optimum number is not clear, but Bell et al. (2006) reported on a learning community which limited itself to thirteen members. Cox (2004) recommended groups of eight to twelve. The community described in this study would have benefited from more members and a more cross-disciplinary membership. As Bell et al. (2006) suggested, a community can benefit from a "multidisciplinary approach to SoTL (Scholarship of Teaching and Learning) by establishing contact with other academics who may not otherwise have the chance to meet" (p. 3). Although the authors sent out emails to the department of Maths and Sciences, there were no participants from these groups. The problems of

retention and attrition described by Johnson (2001) were also experienced. Although there was the on-line blog, as well as the face-to-face meetings, there was a certain amount of attrition towards the end of the semester in both. Some participants contributed less to the blogs, and some participants were not able to attend the last few meetings. One reason, outlined earlier, was the timing of the meeting. One possible reason for the attrition in the on-line community could be the weak / tenuous link between that and the face-to-face meetings. Wenger (1998) explained that a community has five stages, the final two being "dispersed" and "memorable," where the community no longer meets, but perhaps their ideas are still used by faculty. These final stages are inevitable.

A further limitation, or tension, felt by one of the authors was the compromise between the fact that the nature of a community involves collaborative activities and shared experiences, but at the same time it requires some intervention and guidance. This tension became palpable towards the middle of the community when members would discuss problems but not solutions. Blanton and Stylianou (2009) described a similar situation:

Yet, because our peer relationship did not induce a status of 'more knowing other' (and as researchers, we wanted to emphasize collegiality), we often felt constrained in asking our colleagues, who already had busy professional lives, to experiment with other forms of practice. Indeed, our experiences brought to light the tension between participating as peers versus as authorities and, then the challenge of identifying a cadre of faculty who would be recognized as 'professional development leaders' among their peers (p. 88).

In fact, Wenger (1998) pointed out that for a community to maintain itself, there *is* in fact a need for internal leadership. In this study, the form of leadership was day-to-day leadership (Wenger, 1998), which meant intervention in terms of focus questions for the meetings and individual action plans.

Conclusion

We believe that despite some of the weaknesses, the FLC was an effective model for PD in this particular educational context. The FLC followed a semester of compulsory, weekly iPad training, and as a result, it provided an opportunity for meaningful activities directly relevant to each member's teaching and learning situation. The learning was contextualized in that it was situated in the participants' everyday teaching challenges and concerns. This proved to be one of the most significant factors in the effectiveness of the faculty learning community described in this study. The context of the university and new curriculum changes were central to the discussions and

sharing of expertise. In order to leverage the enthusiasm for professional development that directly addresses the current needs and interests of faculty, the authors plan to continue with a faculty learning community in the new semester. Based on the feedback, the authors plan for a more interdisciplinary group of faculty, more variety of focused topics and a more appropriate meeting time. Feedback from the faculty learning community described in this paper will inform decisions and the nature of further FLCs.

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Appendix Faculty Learning Community Participant Survey

- 1. Please comment on your experiences of being part of a FLC. What did you find useful? Did it support your work with iPads?
- 2. Please comment on the FLC as a tool/model for professional development in the context.
- 3. What were the strengths of the community?4. What suggestions would you make for the community to continue?
- 5. Any other comments.