Professional Development for Faculty in Virtual/Online Environments: A Case Study

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Because the number of online courses, as well as the scope of online education, continues to grow, the educators' quality professional development allowing to teach in these formats is paramount (Desimone, 2011; Dysart & Weckerle, 2015). As we seek how to engage and deepen student learning in online, blended, and distance education and training environments, our professional development should mimic and model best practices of developing and learning in these unique environments (Anderson, Krathwohl, & Bloom, 2001). Flexibility and strengths of virtual/online environments provide not only opportunities for students to learn but also open prospects for professional development of the faculty. The possibility to take more traditional face-to-face professional development expands now to the online environment and all the advantages that environment affords. The author of this paper presents case studies from a small two-year college in the Midwest of the United States. They provide explanations and show the results of three different types of faculty online professional development. Moreover, this paper also includes a summary of collected data and additional reflections concerning the online professional development for faculty.

Setting

The Heartland Community College (HCC) is a relatively new (i.e., 26 years old), public, non-profit, two-year community college located in central Illinois. The district that the HCC serves has a population of approximately 230,000. The HCC offers 26 different associate degrees (i.e., 2-year degrees that transfer to four-year institutions) and 44 certificate programs that serve approximately 5,200 students. It has a student to faculty ratio of 21:1. In total 277 faculty members are employed at HCC, 192 full-time and 85 part-time. Traditional face-to-face settings used to be the primary delivery method for professional development. Those offerings focus on an introduction to the college activity, basic information regarding teaching and learning, as well as on particular book or topic related to teaching and learning. However, various formats (e.g., face-to-face, hybrid, online) allowing

to provide professional development correspond better with faculty different wants and needs. Several factors have recently impacted the approach to the faculty online professional development. Those are the following:

1. The number of online courses, particularly during summer semesters, continues to grow (see Table 1 for specific details). This growth shows the need for proper faculty professional development related to designing quality hybrid and online courses.
2. Part-time faculty has various external commitments that often make it difficult to attend and participate in more traditional face-to-face professional development opportunities. They have requested more flexible, convenient, as well as easy to access at any time and any location professional development.
3. The faculty members have also requested that the facilitators are people who create and organize the variety of professional development opportunities.
4. Hybrid and online professional development methods often provide more options for support and allow applying better faculty's experiences into their teaching and learning environments than traditional, face-to-face workshops. Moreover, they also create for faculty participants more opportunities in active learning.
5. Along with full- and part-time faculty interests, instructional administrators (e.g., Deans, Instructional Chairs, and Vice President) have also been asking for additional, high quality, hybrid or online (with the limited face-to-face part) professional development allowing to support faculty participation and accommodate better the institutional culture. The institution's strategic plans includes the need for continuous improvement in teaching and learning through professional development and faculty members are well-compensated (hourly rate, 0.5 Earned Credit Hour, or 3 Earned Credit Hours) for

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Table 1. Percentage of Courses Offered Online by Semester (Heartland Community College)

	FY 13	FY 14	FY 15	FY 16	FY 17
Summer	22.4%	24.3%	25.8%	27.3%	30.5%
Fall	10.1%	10.1%	10.7%	9.9%	10.8%
Spring	11.0%	10.6%	10.4%	10.5%	10.8%

Source: author's own study. Summarized according to collected data from Heartland Community College.

successful completion of a 'deliverable,' in which they can directly apply what they have learned through the participation in the professional development course. Although professional development is a part of the tenure and promotion process, rather than seeing professional development as a 'hoop,' these types of professional development are of high quality and now model active learning and the 'ditch the sit and get' mindset. The commitment to adequate compensation for these types of professional development, despite the continued state budgetary woes in Illinois, is noteworthy.

So, the push for a wider variety of professional development delivery formats has been from both ends of the spectrum – faculty and administration. Realizing that professional development and learning is a process, the Heartland Community College has focused not on a single workshop or event but has created a variety of types of hybrid and online professional development opportunities.

Professional Development offered by Heartland Community College

The new hybrid and online opportunities for the faculty's professional development at Heartland Community College include three primary frameworks and theories. First, they focus on the adult learners and andragogy (Knowles, 1980), secondly on Universal Design for Learning framework (Rose & Meyer, 2002) and thirdly – the Bloom's Revised Taxonomy (Anderson, Krathwohl, & Bloom, 2001). Some topics are delivered in a variety of formats (e.g., such as the topic of Universal Design for Learning) while other issues focus on a specific type of delivery to better meet specific objectives and learning needs. Figure 1 provides examples of different topics and forms of professional development offered in a variety of formats.

Hybrid Professional Development

Like courses for students delivered in a hybrid environment, professional development for faculty in a hybrid design combines face-to-face and online learning opportunities. Its online part may limit collaborative interaction. So, to counteract this limitation, the face-to-face part includes true collaborative elements, for instance, role-playing, group work, discussions. On the other hand, online parts contain specific online resources that are various types of texts, images, and/or videos. First and foremost, they allow the faculty participants to gather knowledge and then reflect by answering the surveys, taking part in a discussion on a discussion board, writing the journal and/or blog entries. This particular delivery format for professional development is still in its infancy and data collection at this time needs further improvement.

Online Professional Development

Chris Dede (2006) edited the book *Online Professional Development for Teachers: Emerging Models and Methods* which compiles a variety of approaches to the offering of professional development for teachers (from kindergarten to all twelve grades). Garnered from this text is a variety of aspects to include in faculty online professional development. The approach that developers of online professional development at Heartland Community College have taken is to model best practices in online and hybrid course design and address combined factors in online course design

Figure 1. Professional development formats and example topics from Heartland Community College
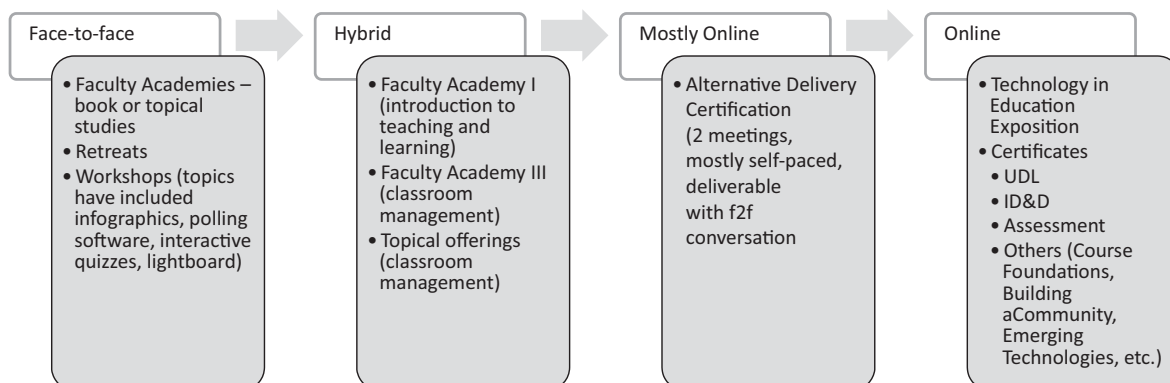
Source: author's own study.

borrowed from Quality Matters rubric (2014), Chico State and the Blackboard Exemplary course rubric. The instructional designers from HCC also purposefully incorporated into the design of these online professional development courses the theoretical teaching approaches such as andragogy (Knowles, 1980) and the Universal Design for Learning framework (Rose & Meyer, 2002). Thanks to that, participants receive a variety of support and choices regarding the time frames, how to engage the learners, as well as how to represent, express, act on/submit what they have learned. Bloom's Revised Taxonomy which was also applied in the course allows for targeted reflection (through individual submissions and asynchronous collaborative online tools) as an addition to the opportunities for creating authentic 'deliverables' that one may use in classroom practices. Such an approach is by nature more individualized. It allows not only to meet the adult learner needs, affords the faculty participants to gather knowledge on topics related to teaching and learning but also to apply in real-life situations what has been learned (Knowles, 1980).

Since most faculty in higher education have little training in teaching and learning methods, these professional development opportunities support them in enhancing knowledge of various teaching and learning practices. Therefore, the choice of an online environment for professional development is purposeful. By participating in online courses, faculty can become more familiar with, as well as more natural and fluent (at least some of them) in this less traditional teaching and learning environment. The college's learning management system affords itself to offer faculty professional development opportunities as well. This learning management system has primarily served as a student learning platform. For delivering online instruction for students and online professional development for faculty, the learning management system is currently self-hosted on the servers that are on the premises of the college. The system requires user identification (i.e., specific and individual user names and passwords) to ensure digital privacy and data protection for all users. Because this is the same learning management system which faculty members use to teach, getting familiar with it as a student allows for a bit of a role reversal. In addition, it provides a variety of support that is in line with the Universal Design for Learning frameworks (e.g., representation) through the various use of images (e.g., photos, infographics, memes), videos, podcasts, and text-based resources. That helps participants to become more comfortable with technology and shows them how different types of technology may be useful in their own classroom environments. All online professional development opportunities contain elements such as:

1. Modeling high quality, effective online teaching practices recommended by the Quality Matters Rubric (2014), the Blackboard Exemplary Course Program Rubric and others (ION, OCEP Rubric, Chico State). This approach includes: overview/orientation – communicate expectations and key 'nuts and bolts' aspects of the course; organizational design with an easy and clear organization of navigation – materials are 'chunked' into meaningful segments preventing the cognitive overload (Sweller, 1994). Also, a variety of assessments, materials, and resources, supporting the engagement of participants in active learning, the use of appropriate interactions to build community, timely and clear communication and feedback, and learner support are elements of a pathway that supports the various ways in which learning can take place;

2. Presentation of materials through a variety of modalities demonstrates the application of the Universal Design for Learning framework (Meyer & Rose, 2002). It will enable the participants to choose how they engage, represent, express and act on what they have learned to meet the certification requirements. Participants always have access to course materials, even after completion of the certification process;

3. A semester time frame – some certificates have looser accountability related to due dates; others have suggested module times (e.g., 1–5 weeks in length). In terms of professional development, the goal of each online certificate is to include explicitly flexible time frames for faculty to reflect, collaborate, and to better implement and address change through a practical application of a "deliverable" (Woodbury and Gess-Newsome, 2002);

4. Creating space for personal reflection to aid in critical thinking as well as to identify areas of strength and opportunities for growth as related to teaching and learning;

5. Providing asynchronous collaborative spaces allowing participants to share, curate, and gain others perspective as well as to give other participants the feedback related to topics of teaching and learning;

6. A 'deliverable' – as part of compensation and accountability for online professional development, participants are required to create an artifact to implement in their classes. Depending upon the online certification process, the 'deliverable' may either be a fully developed part of their hybrid/online course in the learning management system or, in case of the online certificates, the participants have a choice as to what they create and show;

7. The facilitator/instructor's personal assistance and regular feedback for each participant.

Again, based on both faculty and administrative support, implemented online professional development opportunities are proving to be successful. Described in detail in the following sections of the paper, three types of fully online professional development include a showcase of technology used to support student learning as well as several online certificates focusing on key aspects of instruction.

Technology in Education Exposition

The Technology in Education Exposition was a fully online, asynchronous professional development opportunity featured by cadre faculty experts. Each of them created screencasts providing insights into a larger campus community using different types of technology in students' support. Instead of having face-to-face workshops aimed at presenting different types of technology, a change entailed the application of the learning-by-doing approach, i.e., the learning management system (LMS) was the environment for getting familiar with these. This type of delivery format did not limit attendance based on the room size, but all campus employees were able to participate in that professional development course which remained active for three weeks.

A keynote presenter, as well as 26 other staff and faculty members, created screencasts that show, explain, and present different types of tools used to support students in a variety of ways through the to use different technologies. Presentations covered different apps corresponding to four categories:

1. supporting the understanding (Grammarly, NoodleTools, text blasting apps, and Snapchat/Instagram);
2. creating/sharing/delivering the content (Camtasia and Google Drive, infographics, Kahoot, Livescribe Echo Smart pens, PowToon, Screen-cast-O-Matic, Voicethread, Weebly);
3. assessing/evaluating the content (rubrics, clickers, Crossword Generator, EdPuzzle, Flipsnack, Phrase Express, Plickers, Poll Everywhere);
4. collaboration tools (Hypothes.is, Twitter, GoTo-Meeting, Wikis).

Each session included:

1. image and information about the presenter(s);
2. 15-minute (or less) screencast/video;
3. discussion board allowing to answer questions and to facilitate interactions among campus-wide participants;
4. reflection and evaluation questions – each participant had to answer these questions individually while logging to the session. Questions were generated separately for each session; their purpose was to stimulate reflection on how to implement the specific technology tool in one's individual setting and as well as to solicit feedback from participants;
5. additional resources – they included, among the others, the resources needed for evaluating technology tools as well as the information on how and why an instructor would integrate technology into teaching.

Even after the three-week event was complete, the videos and contact information still remain accessible and act as a 'repository' of technology tutorials.

Only 13% of campus-wide employees accessed the Technology in Education Exposition, but those who participated in it, provided the following feedback:

– Comments regarding the online format such as 'incredible,' 'exciting,' 'so inspiring,' 'love the setting and the presentation styles,' 'I'm blown away by this valuable resource,' and 'This connected me to other resources on campus;'
– Comments regarding the presentations such as 'was very informative,' 'I'm learning so much and see some great tools,' 'I had no idea people used technology like this on campus;'
– Comments regarding application of the technology to their own practices such as 'really got me thinking about how to improve student learning with technology' and 'I am a better teacher because of this expo.'

In general, participants valued the online format, the opportunity to see how their peers apply different types of technology tools in innovative ways to support students and the authenticity of the virtual presenters' comments regarding the pros and cons of the technology tools. Based on data collected from the learning management system, five of the individual sessions were expanded outside the online environment to more traditional, face-to-face workshops. Each of these five sessions was replicated twice (due to high enrollments), and participants had the possibility to work in a computer lab to try out the technology tools with the help of the presenter. As a result of this great interest, there are plans to develop the exposition every few years.

Alternative Delivery Certification (ADC)

To teach a hybrid or online course, faculty members are required to complete a twelve-week Alternative Delivery Certification (ADC), a 'mostly' online course. The ADC combines two synchronous meetings interdependent with asynchronous opportunities (delivered online) the content of which focuses on best practices in online and hybrid instruction. The two, synchronous and face-to-face meetings include the following:

– an orientation meeting where participants meet each other and get a full explanation as for the course expectations;
– a subsequent meeting taking place half-way through the course; this meeting is held both face-to-face and through the virtual meeting platform. During that secondary meeting, previous graduates of the ADC show their hybrid or online course development using a 'show-and-tell' method, which is the specific 'deliverable' required for this certification process (hence modeling a requirement of this certification process).

The content of Alternative Delivery Certification process focuses on key topics of online teaching and learning such as introduction to the ADDIE model of instructional design, the Universal Design for Learning framework, 'presence' in an online environment, measurement tools used to evaluate online courses (e.g., Quality Matters), course and learning objectives, as well as assessment, activities and technology tools.

Designed in modules, the required assignments as part of this certification process allow participants to adopt the role of a learner/student in an online course. After learning about best practices in hybrid and online course design, participants gradually shift roles from the students back to the instructors. They need to complete a Course Map which outlines and ties together course learning objectives with a variety of activities, assessments, and technology tools. There is then an informal meeting with each individual participant before developing half of their course (modeling what they have previously learned in the course) in the learning management system. Then a meeting (i.e., "show-and-tell") is set up with the participant, their Instructional Chair and Dean, as well as the Director of Online Learning and Instructional Technologies. During this 'show-and-tell' process, each ADC participant walks attendees through his/her course to gain further perspective and feedback prior to students' enrollment to the course.

For completing this certification, a significant amount of time is required. The estimate is that 96 hours are necessary to complete the course successfully, and faculty members who successfully complete receive monetary compensation. Because of its depth and focus on teaching and learning, successful completion of the Alternative Delivery Certification process is a recent addition of a requirement for tenure. Although many institutions and organizations offer similar types of online courses or programs, the faculty preferred the course held and delivered 'in house,' which corresponds better with the culture of learning at Heartland Community College. A significant number of faculty members have completed the ADC, and the thoughtful courses that they created are indeed a work of art! Ending the course, every cohort of participants gave anonymous feedback, and most of their suggestions are included in the next iterations of the ADCs. Feedback comments mostly regard issues such as:

1. The user-friendly course design and navigation ('which makes me think how I will lay out my online course').
2. Challenges are related to time management, navigating in a new learning environment, embracing new technologies, thinking about teaching and learning in a different way ('changing my stubborn ways') – all similar to what students face in online courses.
3. Collaborating with others and seeing others online and hybrid courses helped to support further the feeling that participants were connected in learning ('we were not alone, especially for us older instructors').
4. Possibility to present information and assess content in different and varied ways ('knowing that students have access to building a free webpage, making infographics, and screencasts definitely broadens the scope of assessments I can do').
5. The continued appreciation of the instructor, for his/her knowledge of hybrid/online course

development, prompt and encouraging feedback as well as other character related skills (e.g., 'always focused on student learning,' 'patient,' 'caring,' 'passionate,' 'easy to work with,' 'supportive,' 'professional,' 'respectful' and 'great at speaking to my fears').

6. Rewards, not only in the form of the certification but also in the form of reflection process ('how to structure my course and how to think about objective through the course,' 'completing the first half of my course and presenting – I was very excited to present my final product. It was a lot of work, but I was proud of what I was able to develop,' 'hearing the applause at the end of my presentation from my instructional chair and dean,' 'it was very rewarding to see how my initial brainstorm of ideas turned into an actual class. It was a challenge for me, but a very rewarding one!').

Some of the most telling comments from participants include statements such as:
- 'I'm so much further along than when I started. I'm super excited to teach online!'
- 'I learned that even though we may think we know it all, after so many years of teaching, we really can always learn more. If online teaching is the future, we need to be prepared. I now feel prepared for the challenge to build an online course.'
- 'I plan to implement much of what I have learned in my face-to-face class,' 'this course allowed me to think outside of the box for online as well as f2f.'
- 'Though this course was online, it was no doubt a fantastic extension of our in-house training. I believe the set up for the course will enable our educators to have a better understanding of how to help more of our students succeed. In the end, that is the main goal not just for HCC but for all of the instructors as well.'

Online certificates

Two fully online certificate courses developed for faculty members in collaborative efforts with a faculty content expert (financed with grant). They cover the topics related to Universal Design for Learning and Instructional Design and Delivery. With a flexible start and ending dates within a single semester time frame, the faculty participant has occasions to learn about these topics, reflect on them, and then apply what they have learned. Participants have the opportunity to explore and better understand each topic, use journaling and blogs for reflection and envision the possibilities for redesign or creation of various aspects of a course. They can also experiment with creating drafts for further feedback toward the designing of a "deliverable" to implement within a chosen course (Barseghian, 2011). As time allows, participants could complete the course requirements within a week or throughout an entire semester. However, participants

invest more time commitment and work, and develop a more elaborate deliverable than in many traditional face-to-face workshops. Based on research indicating that short professional development programs (less than 8 hours) are not very effective, the time commitment for each fully online certificate is approximately 16 hours. That allows to access and reflect on diverse resources, complete reflective journal entries, and blogs (that serve more as a repository for ideas than a traditional collaborative space) and prepare 'deliverable' of the participant's choice (Parsad, Lewis, & Farris, 2001; Richardson & Placier, 2001).

Data collected thus far also indicates that faculty favor providing and developing more fully online certificates courses. Participants readily picked up on successful instructional design aspects (e.g., ease of navigation, 'chunked' information, easily accessible and diverse resources and purposeful use of technology). Participants' feedback also indicates an appreciation for the dedicated yet flexible time to create and design direct application to their class settings. One aspect that participants expected, but was lacking, was a stronger sense of community among the group of learners. The course developers considered those comments but, because of the course's entry and exit points flexibility, the suggested changes were difficult to apply. However, they modified interactive blogs to adjust them better for their unique purpose (to act as a repository of information rather than an interaction tool); and informed participants that additional interaction opportunities would be soon available outside that specific certification.

Collected Data

Data collection thus far for each online professional development offering has been through two means – the learning management system's statistical analysis features as well as through the analysis of the anonymous opinions and feedback through course evaluations. In addition to the feedback provided for specific professional development opportunities as described earlier in the section, the overall analysis of online professional development at Heartland Community College is included as well as what follows as a result of this research.

In general, the percentage of faculty who completed these online professional development courses mimics percentage of students who take online courses at Heartland Community College – the rate being approximately 82% (± 2%). However, the faculty members were more willing and provided more evaluative feedback than students in online course evaluations. The faculty felt the online professional development opportunities were positive. Also, students in online courses indicated similar positive aspects of online coursework. Both groups of respondents conveyed the importance of 'presence' and community within the course. Faculty participants perceived the instructor's presence as one of the key aspects affecting the positive perception of the whole experience. Comments regarding the instructor's role throughout the various online offerings indicated high expectations but also adopting the role of a 'guide' ready to provide thoughtful and encouraging feedback and suggestions in a timely manner to meet the expectations and application nature of various certifications. Since a virtual learning environment might be new to many of the faculty, their comments included the ability of the instructor to allay individual faculty's fears and concerns about figuring out both the technology and learning in this unique environment as well as the passionate conveyance of teaching and learning.

Faculty also explicitly commented on the quality of instructional design items in the course. They commented on the ease of navigation of each course, and they also appreciated the high quality and diverse resources included. As adult learners, they also commented on the relevance of the materials and reflections and, in particular, the opportunity for self-direction and choice in the final projects (e.g., 'deliverable' – Knowles, 1980). Similarly to students, while faculty may understand how to implement quality instructional design techniques within their own course development, they also appreciate those same elements when participating in online professional development. Even if it is a time-consuming task, modeling best practices of instructional design for adult learners is essential in offering professional development to faculty.

Suggestions for improvement have focused on providing further opportunities for collaborative environments both within and outside the online settings. Such environments allow to share the impact of learning and to see what other faculty members might be doing differently in their courses to gain further insights/ideas and to continue conversations surrounding teaching and learning topics. In case of the fully online certificates mentioned earlier, the flexibility of enrollment (that could happen at any point throughout a semester) as well as flexibility in progressing and completing certifications results in a lack of collaboration as it has been challenging to collaborate if participants were at different points within the certification process. Although communicated to participants that the collaborative spaces were more repositories of ideas in an asynchronous environment than real collaborative tools, this issue remained a repeated aspect of improvement in future online professional development offerings. On the other hand, developers have made some attempts to answer this particular feedback by considering the use of more traditional 'teaching circles,' through virtual, synchronous meeting times or by using campus-wide online forums (such as an online repository that is available at many institutions) to exchange ideas outside the certification process. The college continues to look for additional ways to support and build cross-disciplinary collegial relationships focusing on teaching and learning.

As related to flexibility of time, while it was anticipated that more participants would take advantage

of these online opportunities in the evening hours and weekend days, actually that was not the case. Data collected from the learning management system indicate that most participants accessed the variety of these online certificates on Tuesday, followed then by Thursday, Friday, and Monday. Relatively little activity was completed over the weekend. Identifying the time of the day that participants accessed the professional development was also interesting. It was assumed that many participants would access materials in the evening hours, but again data collected from the learning management system indicate that they did it primarily during the day, mostly in their non-working afternoon hours – between 1–4 p.m. Relatively little activity was observed in the evening and late-night hours. This data specifically brings into question faculty's need to have more flexible times for face-to-face professional development offerings. For adult learners, perhaps the perception of having online professional development that includes choice and flexible due dates within a more self-paced environment is important to consider.

Many organizations and institutions offer a variety of online certificates regarding topics related to teaching, learning and emerging technologies. While these may be more cost-effective for institutions, the 'homegrown' online professional development may be beneficial for some faculty members – especially if their institution provides adequate compensation (e.g., financial, time, and/or certificates/badges). Faculty and instructors who have limited access to funds and time for external professional development are more apt to take advantage of online professional development opportunities. Although full-time faculty have participated and still participate in more traditional courses, non-full-time faculty (namely adjunct faculty and adult education instructors) are embracing these new opportunities.

Experiences in these diverse online professional development opportunities are overwhelmingly positive. The participants encourage other faculty members to take advantage of online opportunities – not only for the convenience, the possibility of making individual choices and the quality of the learning experience, but also for the chance to directly apply the information learned into the creation of a 'deliverable.' Factors that are worth to consider for online professional development include elements such as best practices in online design, assessment as well as addressing the different adult learners.

Conclusion and Additional Considerations

Various types of online professional development for faculty can be highly successful (Dede, 2006). However, considering hybrid or online formats of professional development supporting faculty in their growth in teaching and learning, inclusion of a few key aspects is paramount. One of them is the marketing of online professional development. Its task is gaining support for these unique opportunities, especially if

an institution has not traditionally considered hybrid or online environments. Personal meetings (with departments and individuals in their own offices) should be included to develop supportive relationships with faculty. Early adopters and users of technology could be a targeted group for hybrid/online professional development opportunities but time and efforts to continually build authentic relationships with diverse faculty should also be included. The positive reputation of the instructional designer and/or facilitator is essential for building professional relationships that support ongoing learning. Perhaps, thanks to these positive relationships, more faculty would venture into participating in hybrid and/or online professional development opportunities. Well-developed marketing efforts should include clear communication as to the benefits of these occasions geared for direct application for teaching and learning. Moreover, planning the promotion of these opportunities, one should consider the use of high-quality marketing tools such as graphic emails and announcements, as well as videos.

Another crucial aspect of high quality online professional development is to provide timely, quality feedback to participants. Perhaps, it is worth to consider scaling up the offer of online professional development to implement other resources such as online professional learning communities and instructional coaches/mentors to address better sustainability, support longitudinal change and/or maintain the integrity. Moreover, the administrative support regarding the compensation for professional development could also be important. Whether that would be financial or non-financial, i.e., possible additional recognitions including micro credentials or course release time if there is no direct payment. In many of the aforementioned professional development opportunities, the successful completion came with financial compensation. It is anticipated that if compensation were to be decreased or non-existent for this online professional development at Heartland Community College, faculty would not participate. That would probably be even more certain in case of the Alternative Delivery Certification process, which requires more time to complete.

It particularly applies to the content and nature of the Technology in Education Exposition described above, but also to creating online professional development that uses any digital tools (especially third-party/external digital tools). Explicit details and instructions related to concerns of digital privacy and Terms of Service (ToS) are also essential in these virtual learning environments, especially if the employer requires professional development. Instructors in these three types of online professional development demonstrated how to use the variety of different kinds of technology tools (in the Technology in Education Exposition) and often used online applications for their 'deliverable' (in the Alternative Delivery Certification and the fully online certificates). That is the reason why faculty members need clear information

and explicit instruction about user data that may be stored, tracked and collected by third-party products. Including more thorough presentation of this specific topic in online professional development would not only allow faculty participants to become more aware of it and give them additional opportunities for analysis and application, but also convey and transfer the same analysis and evaluation to their students who use technology applications in their own learning environments.

Finally, there are continued difficulties in measuring the impact and effectiveness of professional development on student learning. While the collected data is currently tied to faculty satisfaction with evidence of some positive gains in student achievement (Condon, Iverson, Manduca, Rutz, & Willett, 2016), correlating them with student learning and performance in higher education requires further research.

As many institutions expand their online courses offerings, providing high quality, online professional development for faculty is vital. Such opportunities may be beneficial for a wide variety of faculty as they seek convenient and relevant learning that may improve their teaching capabilities. The potential impact of these online professional development opportunities is far-reaching and may refer not only to hybrid and online course development but also to learning in more traditional, face-to-face learning environments.

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Abstract

Many professional development opportunities for faculty are offered in a traditional, face-to-face learning environment. However, similarly as virtual/online learning environments may be an answer to the various student's needs, it may also apply to fulfilling teaching and learning needs of the faculty. This paper provides insights regarding three different types of professional development for faculty in a virtual/online environment implemented at a two-year, small college in the Midwest of the United States. Because we look for how to engage and deepen student learning in online, blended, and/or distance education and training environments, our professional development should mimic and model best practices of developing and learning in these unique environments (Anderson, Krathwohl, & Bloom, 2001). Although, traditional face-to-face professional development for faculty may still be in use, this paper provides guidelines and suggestions considering developing virtual/online professional development for faculty, in order to offer them additional learning opportunities.

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