



Shaping the Futures of Learning in the Digital Age

Using Certificates to Engage Faculty in Professional Development

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Abstract: The Center for Teaching and Learning (CTL) at the University of North Carolina at Charlotte is helping to shape the futures of learning in diverse ways. In this paper, we describe a recently implemented micro-credential option for faculty and graduate students, the Essentials of Teaching and Learning Certificate Program. We also report findings supporting micro-credentialing as a popular, flexible, and cost-effective approach to faculty development and teaching excellence.

Keywords: *Faculty development, teaching certificate, teaching, learning, pedagogy, andragogy*

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Micro-credentialing in Higher Education

Micro-credentialing is a new approach to documenting learning and professional development that is growing rapidly in higher education. As its name suggests, micro-credentialing allows small skill development achievements and incremental learning to be documented as steps toward larger goals on specified learning pathways. While many universities use micro-credentialing as a means to recognize the skills and knowledge developed by students, it is increasingly a tool used for faculty development. The use of micro-credentialing enables

faculty, staff, and graduate students flexibility to select learning experiences and set their own personal learning pathways (Yu, Dyjur, Miltenburg, & Saito, 2015).

Two popular models of micro-credentialing in higher education are certificate programs (CP's) and digital badges (Mullenburg & Berge, 2016). Typically, digital badges represent a shift from attendance-based certificates to criteria-based accomplishments. In order to receive a badge, participants most often meet a learning outcome or demonstrate their learning or new skills (Yu, Dyjur, Miltenburg, & Saito, 2015). For example, Indiana University has developed a three-tier micro-credentialing system for faculty members engaged with new learning technologies (Hart, 2015). The "basic-level badge" recognizes faculty members who have developed a basic understanding of learning technologies; the "proficient-level badge" recognizes faculty members who have implemented technologies in the classroom, and the "advanced-level badge" recognizes faculty members who have led broader implementation of new learning technologies. Texas Wesleyan University developed a complex badging system that awards points for faculty members who attend or present workshops or engage in professional development activities through social media (Hart, 2015).

Certificate programs are another approach to micro-credentialing that are more like traditional professional development, typically measured by the number and type of learning experiences completed or the amount of time spent in training. In order to receive a certificate, participants most often complete a specified number of courses or experiences on a given learning pathway. The most common form of certificate programs in the context of faculty development is a Teaching Certificate Program (TCP). While TCP's differ across institutions, most are offered through a university's Center for Teaching and Learning (or similar faculty support office). Centers for Teaching and Learning traditionally utilize a wide range of professional development formats, including online tutorials and face-to-face workshops, and have recently embraced the TCP model. For example, The Center for Teaching Excellence at the University of South Carolina offers faculty a selection of certificate of completions, including Fostering Proactive Learning Environments, Teaching Towards Inclusive Excellence, and Integrative and Experiential Learning (Hamson-Utley & Heyman, 2016). Yale University offers graduate students and postdocs a comprehensive training program in effective college teaching, the Certificate of College Teaching Preparation (CCTP).

Microcredentialing—both digital badges and TCP's—have many purported benefits that have contributed to their growth in faculty development (Yu, Dyjur, Miltenburg, & Saito, 2015). First, they may motivate people to engage meaningfully with professional learning activities through the provision of a small extrinsic reward (certificate or badge). Second, they are flexible and allow learners to create individualized learning goals and pursue learning pathways according to their own preferred order and timeline. Third, micro-credentialing can document informal and formal learning accomplishments achieved outside of credit programs in a meaningful package that fits nicely into a vitae or RTP file. There is a burgeoning literature supporting these purported benefits of micro-credentialing, but most of it is for its use with students. One study examined the impact of digital badging with university faculty and found dramatic increases in professional development workshops and high levels of support among those who did (Hart, 2015). Another study found that faculty at the University of Colorado value the use of badges as a means to document professional development, which was identified as a motivator of early adopters of micro-credentialing (Stephaniak & Cary, 2019). In spite of these promising early reports, there is little empirical research on the use of micro-credentialing with faculty.

The Teaching Certificate Program at UNC Charlotte

UNC Charlotte is a public urban research university that enrolled 29,710 students (including 5,323 graduate students) in Fall 2018. It has just over 1,000 full-time faculty and approximately 400 part-time faculty. The Center for Teaching and Learning (CTL) enhances the University's mission of teaching and learning excellence, provides enterprise level instructional technologies, and champions the advancement of scholarly teaching. The CTL supports the teaching mission of the university through a range professional development programs including instructional design and technology consultations, workshops and webinars, faculty learning communities, faculty academies, a Scholarship of Teaching and Learning grants program, a Teachers Observing Peer program, and the Teaching Certificate Program.

A comprehensive program assessment of the 2016-2017 academic year identified several trends in CTL participation rates. First, we observed a disproportionate decline in attendance in pedagogy workshops relative to instructional technology workshops. We classify pedagogy workshops as those that help faculty incorporate best practices in teaching and learning into their in-person and on-line courses, while instructional technology workshops focus on the university's Learning Management System (LMS), Student Response System (SRS), and web conferencing tool. These findings were puzzling because many pedagogy workshops were among the most highly rated CTL offerings by participants during the same time period.

Another observed data trend was an under-utilization of the TOP program, which was among our most highly rated programs. The Teachers Observing Peers Program (TOP) consists of a structured observation of a "master teacher" teaching a regular UG course, either in a face-to-face or in an online format, followed by a debrief session between the teacher and the observer(s). The face-to-face courses are in an active learning classrooms or use active learning techniques and the online courses have achieved Quality Matters designation. TOP teachers are from a range of disciplines and teach a wide range of course using diverse teaching strategies. Observers choose a course to observe from the CTL website and prepare for the observation by selecting a structured observation form from the website. The peer observation forms are designed to facilitate and guide data collection during the observation which is then used during the debriefing session.

Another trend identified by the program assessment revealed that part-time faculty and graduate students comprised an ever-increasing percentage of participants in all CTL programming, relative to full-time teaching faculty. Other research with our part-time faculty (see Buch, McCullough, & Tamberelli, 2018) had identified unique professional development needs and challenges facing this population that we were keen to address. A comprehensive needs assessment of our part-time faculty had shown a strong desire for flexible, on-demand professional development programming that would support them in the classroom while also providing documentation of their training investment that could be included in their vitae. We knew from other university data that graduate students shared similar professional development needs and goals.

In response to these trends, CTL leadership explored ways to increase faculty (and graduate student) engagement with under-utilized but highly rated professional development opportunities. We wanted to offer programming that would attract more faculty to our most-highly rated pedagogy workshops. We also wanted to address the flexibility and documentation needs of our part-time faculty and graduate students. Finally, we wanted to significantly increase the numbers of program participants without sharply increasing resource demands in the CTL.

Our over-arching goal was to provide programming that would enhance the teaching and learning mission of the university.

CTL leadership reviewed best practice trends in the literature seeking strategies most aligned with these goal, and the TCP approach to micro-credentialing fit the bill. Considering the tiered approach developed at Indiana, we decided to begin with a first-tier program that we called the Essentials of Teaching and Learning Certificate Program, which was implemented in the fall of 2018. Instead of creating new workshops and experiences that would offer participants a foundation in teaching and learning essentials, we incorporated pre-existing pedagogy workshops and adapted them in both content and delivery mode. The workshops included are Syllabus 101: Roadmap to Success; Introduction to Learning Objectives and Backward Design; Using Feedback to Improve Teaching and Learning; Inclusive Teaching and Learning; and Getting Started with Active Teaching and Learning. Completing the certificate takes approximately twelve hours of faculty time. The program is administered by the CTL and most workshops are taught by the CTL staff. The Inclusive Teaching workshops and some of the Learning Objectives workshops are led by staff from the following offices: the Office of Academic Diversity and Inclusion, the Office of Identity, Equity, and Engagement, the Office of International Programs, and the Office of Assessment. TCP participants are also required to participate in the Teachers Observing Peers Program, described above. Although faculty may observe a full range of TOP teachers, only one observation and debrief session is required toward completion of the TCP. The utilization of existing programs and services was intended to ensure the cost-effectiveness and sustainability of the TCP.

The TCP was designed to be faculty-centered in terms of access, flexibility, and timing. Faculty may earn a certificate in a single semester but can also extend it as long as needed, with the CTL monitoring their progress via digital transcripts. Faculty can also begin the program on the learning pathway that is best suited to their immediate teaching assignment, instructional needs, and development goals. The TCP thus meets the just-in-time pedagogical needs of teaching faculty whose investment in instructional development is rewarded with tangible evidence that can be included in their annual teaching review as formal documentation of these efforts. As a micro-credential, it is anticipated that a certificate of teaching and learning essentials will be more meaningful and easier for recipients to package into the teaching sections of their vitae than a random listing of workshops they have taken. Another benefit of the TCP as a microcredentially tool is that even pre-completion participation can be used to document progress and milestones and to inform other professional development decisions. It was anticipated that these features would appeal to all teaching faculty, and it may be especially attractive to part-time faculty and graduate students.

Results and Discussion

Since implemented in 2018, 169 faculty have participated and 70 completion certificates have been issued. At the end of each academic year, an online survey is sent to faculty who have completed the TCP during that year. Based on data collected from participants, the TCP is among our most popular initiatives, with 100% agreeing that their skill level was improved and that this translated into changes in their teaching practices. 68% reported that these teaching changes resulted in measurable improved learning outcomes for their students. These findings place the TCP at the very top of the most well-received CTL offerings during this time period.

Overall participation rates in pedagogy workshops has also risen dramatically since the TCP was introduced. As reported above, prior to its implementation, 17 of the 20 workshops

with the highest overall registrations were instructional technology (focused on the Learning Management System [LMS], Student Response System [SRS], and web conferencing tool) and 3 were pedagogy (focused on universal design and inclusive teaching). Data collected after its implementation (the 2018-19 AY), revealed that of the 20 workshops with the highest overall registrations, 7 were instructional technology and 13 were pedagogy workshops—all of which were part of the Essentials of Teaching and Learning Certificate Program. During the same year, the top five workshops with the highest overall registrations were pedagogy workshops from the TCP program and the workshop with the fifth highest overall registrations was an instructional technology workshop focused on the LMS. Similar increases in participation rates have been observed during this time period for the Teachers Observing Peers (TOP) program. Thus, it appears the TCP has increased the reach of CTL offerings in a very cost-effective way.

Early anecdotal data also provide support for the TCP. We have heard from faculty (especially part-time faculty) that they value the certificate as a measurable indicator of their professional development investment as much as they value it as a process for becoming better teachers and facilitators of their students' learning. This may explain the disproportionately higher participation rates in the TCP of part-time relative to full-time faculty, although the program has clearly appealed to both populations. Anecdotal reports from participants in our Adjunct Faculty Learning Community (see Buch, McCullough, & Tamberelli, 2018) suggest that adjunct (part-time) faculty believe the program provides a micro-credential valued by hiring department chairs and deans that strengthens their qualifications for teaching (full-time as well as part-time) positions. Another unexpected benefit of the TCP has been for CTL faculty and staff who report more satisfaction with workshop delivery due to the increased numbers of attendees resulting from the TCP.

Conclusion and Future Directions

This paper adds to the emerging literature on the viability of micro-credentialing for faculty and graduate students in higher education, as both a professional development and documentation tool. In particular, our findings suggest that a teaching certificate program can be a powerful tool for engaging (or re-engaging) participants in new and existing teaching and learning programming. Similar to the findings reported in the literature, our results suggest that micro-credentialing is a flexible, cost-effective faculty development strategy. Of course, we base these findings on preliminary data and we plan to continue to monitor the TCP in terms of participation, completion, and satisfaction rates. We also hope to improve the way in which we assess changes to participants' teaching skills and methods from self report to a more objective indicator.

Based on demographic participation trends and anecdotal results, we also plan to market the program more directly to part-time teaching faculty, especially those teaching large sections of high-enrollment first- and second-year undergraduate courses. Another goal is to utilize participant feedback for program improvement. Our preliminary analysis of participant responses to open-ended items on the program assessment survey has already identified a desire for a second certificate that builds on the basics covered in the Essentials TCP, with a more "advanced" TC for those who have completed the first. This would be similar to the tiered approach used elsewhere that may eventually include a more complex set of tiered programming across more diverse learning pathways.

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