Promoting Engagement in Microcredential Coursework: Applications of a Course-Embedded Advising Model

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This pilot involved incorporating course-embedded advising into a course offered as part of a micro-credential. Microcredentials are targeted, short programs that align to key skills and are accompanied by documentation, such as digital badges (Varadarajan, Koh, & Daniel, 2023; Yueh, Kamsin,& Fuh, 2023). Emphasizing skills and utility must not come at the expense of engagement, which is a prerequisite to student learning. The inclusion of course-embedded advising offers faculty a venue from which to provide micro-mentorship while preserving course content. Lessons learned and future directions are discussed in the context of relevant best practices for the delivery of online coursework.

Keywords: microcredentials, course-embedded advising, online education, student engagement, mentorship, assessment, student learning

INTRODUCTION

Mircocredentials can be defined as skills-focused credentials that are short in duration, document the attainment of relevant and in-demand skills, and are generally documented by digital badges (Ippoliti, 2018). Digital badging programs were precursors to microcredentials, and they have historically been used to recognize milestones in student and employee training (Alt, 2023; Ippoliti, 2018). These badges served

as an artifact documenting the completion of certain tasks or activities. Some questions regarding authenticity and quality of instructional materials arose surrounding digital badges. Validity of assessment and consequently, level of understanding, were additional concerns (Ippoliti, 2018). Due to concerns regarding digital badges, pressure was placed on trainers to document the effectiveness of training leading to digital badges in a wide variety of areas. Multiple formative and summative assessment measures were incorporated into many training courses that led to digital badges. This contributed to the implementation of an accessible credentialing method that prioritized cost savings for employers in a wide variety of industries: microcredentials.

Microcredentials are short in duration, focused on core skills, and pertinent to specific career fields. Standardization and regulation of microcredentials has not yet been accomplished (Zain, 2023). This is one of the biggest barriers to using mirocredentials as measures of competency. Additionally, proper benchmarking is needed to demonstrate return in investment for prospective students (Zain, 2023). Despite these challenges, microcredentialing is becoming a popular option in training and in higher education (Varadarajan, Koh, & Daniel, 2023; Yueh, Kamsin,& Fuh, 2023). Recent surveys indicate up to 95% see multiple benefits in microcredentials (UPCEA, 2023). For instance, Yueh, Kamsin, and Fuh (2023) explored the utility and relevance of microcredentials by focusing on hiring practices within technology job markets in Malaysia and found significant value reported by organizations. Varadarajan, Koh, & Daniel (2023) examined both strengths and challenges associated with the implementation of microcredentialing in higher education.

One factor which they found to represent both a strength and a challenge is the digital badge. Digital badges may be considered a strength of microcredentials in that they serve as a way to document skill attainment. Badging may also be considered a challenge, due to the need to develop credible assessments. Mhichíl, Oliver, Lochlainn, and Brown (2023) identified key strengths that are associated with the microcredentialing process including an emphasis on specific and relevant skills which provide a means by which to communicate skill attainment to employers.

Tamoliune, Greenspon, Tereseviciene, Volungeviciene, Trepule, and Dauksiene (2023) explored the role played by microcredentials in higher education, focusing on microcredential utility following the start of the COVID-19 pandemic, arguing that the uncertainty surrounding the pandemic magnified the need for a workforce with targeted and verifiable skills. Ward, Crick, Davenport, Hanna, Hayes, Irons, Miller, Moller, Prickett, and Walters (2023) looked at the value of micro-credentialing in terms of building skills when working with government agencies. Microcredentials were found to provide effective and personalized learning solutions for students working on practical skill development, leading some to argue that key gaps in the higher education system created the need for microcredentials.

Education and training are both essential for maintaining the future of our society and civilization. As shown in the Hechinger Report (Marcus, 2022), the lack of true and sustainable education has drastic effects on individuals as well as entire societies, especially in a post-pandemic world (Boud & Jorre de St Jorre, 2021). The development of relevant and effective curricula is essential to prevent the acceptance of substitutes for quality education by students and future leaders. According to Brown et al (2021), COVID-19 has put worldwide governments in a panic attempting to fill the ever-widening gaps in skills in a dynamic job market with fewer and fewer qualified candidates as a result of the "Industry 4.0 or the Fourth Industrial Revolution" (Brown, Nic Giolla Mhichil, Beirne, & Mac Lochlainn, 2021). With high-level organizations realizing the necessity for a drastic change in education, micro-credentials have the ability to address important gaps (Brown, Nic Giolla Mhichil, Beirne, & Mac Lochlainn, 2021).

Despite the potential, Brown et al (2021) explain that a lack of standardization and oversight have slowed effective implementation due to concerns about the effectiveness of such an endeavor and the shift away from traditional courses in higher education (Pickard, 2018). This shift has been referred to as "a betrayal of higher education's higher purpose" (Ralston, 2020). Do Ralston's concerns regarding the separation of solid curriculum into smaller chunks automatically mean a degradation in the level of quality? The European Union is taking massive steps towards demonstrating their belief that microcredentials are the answer for the future while showcasing that microcredentials are an important part of higher education - not a competitor (International Micro-Credential Summit, 2023). One major concern is the requirement

to constantly adjust focus of education due to the fast-paced changes in the global job market that drive the necessity for flexible, individualized, and high-level training such as microcredentials (Brown, Nic Giolla Mhichil, Beirne, & Mac Lochlainn, 2021). The goal of adapting microcredentials to meet degree program standards should ensure that high quality is preserved through the reorganization of educational programming into smaller, more attainable segments to allow more flexibility requires forward thinking and modularization for sound curriculum development (Boud & Jorre de St. Jorre, 2021). Experience and competency may hold more value than a formal degree in some situations (Gauthier, 2020).

What impacts are associated with the hesitancy to adopt an innovative approach to higher education? According to research conducted as part of the Education Data Initiative (2023), "The average student loan debt" is currently $37,338", a significant barrier to higher education (Hanson, 2023). Further, around 75% of bachelor's degree holders do not work in the field in which they were educated (Abel & Deitz, 2014). Microcredentials represent a solid solution to multiple issues in the higher education sector by providing short, skills-focused, documented training which has the capacity to be stacked for the purposes of obtaining additional credentials. Microcredential course work has been predominantly delivered in the online format due to such factors as the global pandemic (Rosinger et al., 2022), consumer demands for flexibility (Alexandra et al., 2021), and logistics associated with the delivery of training to individuals currently working remotely (Fidaldo, & Thormann, 2017; Simon et al., 2023). Adherence to best practices should produce a meaningful learning experience (Shadnaz et al., 2021) but building community in short programs must be intentional. Microcredential course delivery must include opportunities for engagement to remain a viable option for students.

One strategy for engaging students in online programs is course-embedded advising. Small interactions, which can be referred to as micro-advising, can have a significant impact on the progression and career preparation of online students (Richardson et al., 2022).

In course-embedded advising, a formal assignment around the middle of the course is revised to include interactions between individual students and the course instructor (Dennis, Fornero, Snelling, Thom, & Surles, 2020). One important benefit of this method is the preservation of course content and student learning outcomes assessment. It also represents an intentional engagement initiative.

A great body of literature illustrates the importance of both academic advising and faculty mentorship (Fiore, Heitner, & Shaw, 2019; Hamel et al., 2021; Lowe, Stone, & Macy, 2023). For instance, research demonstrates that the inclusion of scheduled advising impacts student success (Craft, Augustine-Shaw, Fairbanks & Adams-Wright, 2016; McGill (2019) and it also impacts student persistence and reduces the impact of disruptions on degree completion (Sholes, Sullivan, & Self, 2023). Student outcomes have also been improved by tutor-based advising (Kara & Can, 2019). Further, academic advising in online programs can help to lessen the impact of psychological distress (Askar, Adawiyah, & Nurdin, 2021).

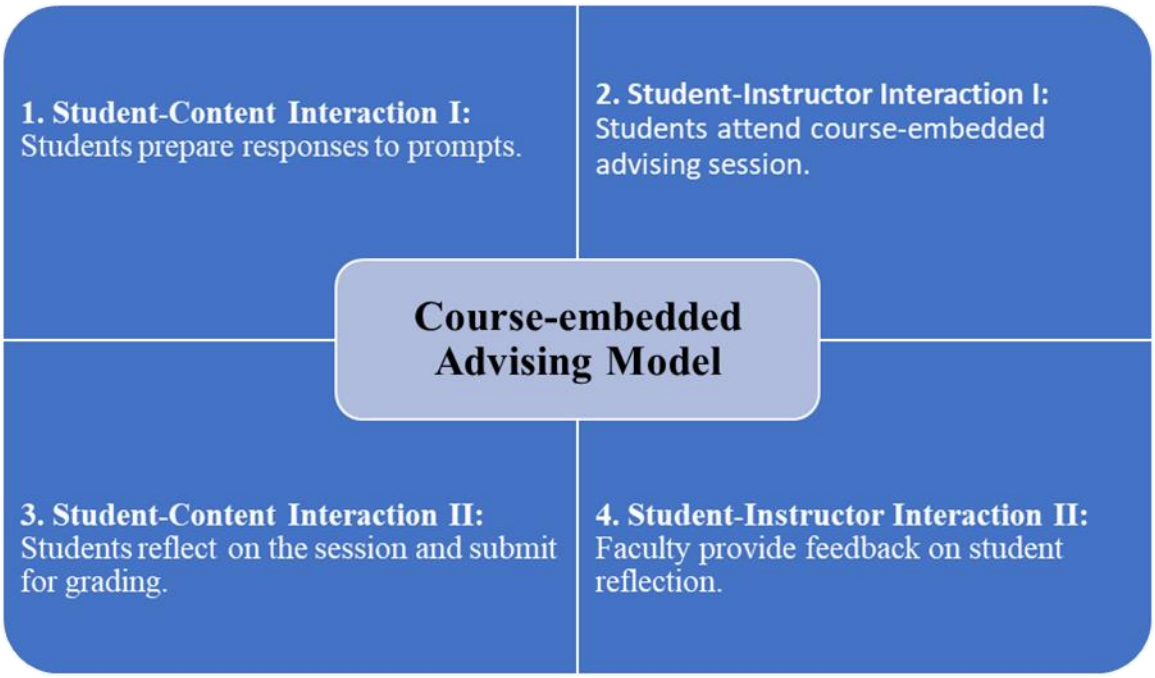
Additionally, student understanding of policy, such as academic integrity policies, can be nurtured through academic advising (Turner, K. L., Adams, J. D., & Eaton, 2022).

Intentional mentorship of students in online classes that involves clear expectations, prioritizes interpersonal aspects of the relationship, and nurtures competence in the area of technology helps to address key challenges. Faculty mentorship can also help to support the successful completion of independent research (Fiore, Heitner, & Shaw, 2019). Lab projects represent an additional way that course-embedded faculty advising procedures have been used (Heermann, Getty, & Yucel, 2020), and course-embedded advising has also been used to support research in the field through study-abroad programs (Hamel et al., 2021). Student engagement has been shown to be impacted by peer teacher mentorship delivered outside of the online course room (Lowe, Stone, & Macy, 2023). Research also demonstrates positive student perceptions of engagement in a formal course-embedded advising model delivered to international and domestic online graduate students (Dennis, Fornero, Snelling, Thom, & Surles, 2020). One way to conceptualize the impacts of course-embedded advising on student experience is through the lens of Self-determination Theory, which has been explored in the context of student engagement in online programs (Chiu, 2020).

METHOD

This pilot involved integrating the course-embedded advising model shown in Figure 1 below (Dennis, in press; Dennis, Fornero, Snelling, Thom, & Surles, 2020) into a graduate level course offered as part of a micro-credential program.

FIGURE 1
COURSE-EMBEDDED ADVISING MODEL (Dennis, in press).



Course Identification

The microcredential program into which the course-embedded advising model was integrated focused on Organizational Consulting. The program contains five courses, each of which is 8 weeks in duration. Students completing the microcredential may complete their credentials in less than one year while taking only one course per term. Criteria impacting course selection for the course-embedded advising session included placement of the course within the microcredential's sequence of classes and course content.

Particularly due to the fact that only one course-embedded advising session would be included in the 5-course program, timing was of the utmost priority. The argument could be made that including an engagement activity such as course-embedded advising early in the sequence would be advantageous, and this has been done in prior iterations of the model (Dennis, Fornero, Snelling, Thom, and Surles, 2020). When considering students enrolled in microcredentials, however, it is useful to consider the length of the program, as well as the typical student needs. Microcredentials are typically sought out by individuals who want to demonstrate a particular skill and earn a credential verifying said skill. As such, it was determined that prospective students would likely be extremely focused on completing their coursework. Given the fact that orientation experiences, which involve interaction and engagement attempts, directly precede the first course, it was presumed that mid program would be a more appropriate time to introduce this activity.

Next, in terms of course content, factors impacting the decision centered around coverage of concepts with real world relevance and ease of assignment conversion. All courses in the sequence include a great deal of content that is relevant to life and work, given the subject-matter of the microcredential. Further, many of the assignments were presumed to convert with ease, given the focus on critical thinking, which

aligns well with a discussion of prompts. Recruitment and Selection was chosen as the course into which the embedded model would be integrated.

Course Details

The identified course focused on analyzing literature and applied case evaluations to develop and demonstrate mastery of core concepts and skills in the fields of selection and recruitment. Key topics included sourcing, job descriptions, recruitment metrics and tools, interviewing, and diversity, equity, and inclusion. The 8-week course includes 2 to 3 assignments per week. The course-embedded advising session was placed in week four of the course, to allow students time to schedule their individual sessions and prepare their responses to the prompts. The session replaced the weekly assignment for the week in which it was scheduled as has been done in prior iterations of the model. This is of utmost importance, because it is vital to preserve the workload of students, as well as faculty. Additionally, the prompts of the replaced assignment were preserved within the prompts of the advising session, ensuring continued alignment between the activity and relevant course and program level outcomes. Announcements were inserted in the course beginning in week one, alerting students of the required session. After attending course-embedded advising sessions, students are required to complete reflections that summarize their responses to the prompts. These short reflections create an artifact documenting the session and are graded as pass/fail, to preserve workload.

Session Prompts

The assignment below was deemed most conducive to adaptation for the purpose of the session.

Title: Developing Inclusive Job Descriptions

Instructions: You will be asked to meet with your instructor individually during week four of this course. Take time to schedule your meeting by visiting the calendar linked in the course and selecting a time that works for you. If you are not able to participate during any of the times listed by your instructor, send them an email to discuss additional availability. Your session may be completed via Zoom, the telephone, or via text using WhatsApp.

Please prepare responses to the prompts below before attending your session:

Prompt 1: What is the difference between diversity and inclusion? Why is this important?

Prompt 2: What are some strategies for developing inclusive job descriptions?

Prompt 3: What are some ways that you can apply the information contained in the readings to your work, either current or future?

After your discussion with your instructor is complete, please submit a short summary of your responses to the prompts, commenting on the interaction with your faculty member and how it did or did not influence your thinking.

RESULTS

Lessons learned centered around effective design, centering intentionality, and tailoring content to the intended audience.

Effectively Designing for Engagement

The average instructional designer is familiar with the fundamentals of building courses for traditional programs. The micro-credentialing design process is different from designing courses for a full degree program. It is best to engage Instructional Designers and Subject Matter Experts with targeted training that emphasizes the objectives of the micro-credentialing program and why demand is increasing. Doing this upfront prevents development confusion and it lays the ground rules so that an effective skill-based student experience can be designed. Regarding the course-embedded advising session, placement of the activity was integral to maximize student impact.

Intentional Approach

Designing engaging microcredentials is not a seamless process, as it takes time, focus and a deliberate intent to create a specific skill-based program that meets the employers' immediate needs and the students' need to obtain employment. As discussed, the experience, framework, and skill-based needs for one program will not necessarily translate into another. Regarding the course-embedded advising session, focusing on prompts that promote reflection on key skills allowed for engagement between both students and content and students and instructors.

Tailor Content to Your Audience

What is viable and pertinent to you may not meet the employers' skill-based needs. To ensure relevancy, collaborating with professional organizations and businesses when developing these programs can be extremely helpful. Obtaining the assistance and/or endorsement of an employer is invaluable. This approach can increase awareness and validate the purpose and impact of micro-credentials.

Regarding the use of course-embedded advising to promote engagement, it is important to understand the needs of the intended audience. For example, are new students only interested in a microcredential? Are microcredentials primarily for current students in degree programs? What percentage of students are likely to stack a microcredential into a degree? Obtaining the responses to these questions can help to inform the content of the embedded advising sessions.

DISCUSSION

Although microcredentials were first introduced in 2011 by the Mozilla Foundation, the concept is still considered a new academic product. Recent studies highlight confusion about alternative credentials, but all parties seek quality, verifiable, bite-size, low-priced online offerings targeting specific industries (D'Agostino, 2023). This can make it challenging from a marketing perspective as there is more to this process than getting the word out. Educating your target market and thoroughly communicating the value is a critical component of the marketing process. Course-embedded advising provides students with 1-to-1 micro mentorship from their faculty, thereby building community and promoting engagement. It is an important way to ensure excellence in microcredential programming. Seeking out small and targeted learning experiences should not reduce the student's opportunities to engage with peers, content, and faculty.

Due to massive integration, microcredential courses have launched rapidly, but the intentional creation of engaging online learning environments has lagged behind (Alexandra et. al, 2021; Brooks & O'Shea, 2021). Fostering interactions between students and instructors will continue to be important, but engagement with peers and content also impacts student learning and experience a great deal. Future iterations of the model used here will emphasize attempts to expand course-embedded advising beyond student-instructor engagement to incorporate best practices for student-student engagement and student-content engagement.

For instance, opportunities for collaborative learning that still preserve the need for flexibility offered by the asynchronous format could support peer-peer engagement (Robinson, Kilgore, & Warren, 2017). These efforts could be aligned with course-embedded advising by the assignment of asynchronous group activities to follow individual faculty sessions, thereby providing students with the opportunity to share experiences with peers, enriching the student experience.

Additionally, gamification is a key strategy for nurturing student-content engagement (Antonaci, Klemke, & Specht, 2019) which may align well with the course-embedded advising model. For example, students could complete a simulation and then discuss their reflections with faculty during a course-embedded advising session. Game-based learning also prepares students to effectively work remotely, a format which has increasingly become commonplace (Simon et al, 2023).

In summary, microcredentials represent a key opportunity for students to complete targeted training that is directly tied to core skills with relevance to career fields. Microcredentials are documented by digital badges, thereby representing an artifact to demonstrate proven skill. As a relatively new form of credential,

agreement regarding definition and regulation is lacking. Best practices certainly dictate that all educational experiences must include opportunities for engagement, and course-embedded advising is a viable strategy for building community, connection, and meaning into short and targeted skills-based courses.

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