

Board 104: Using "Micro" Approaches to Prepare Engineering Technology and Business Students for the Informed Workplace

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Abstract

The information landscape of today’s workplace is very different from the one our students experience in academia. As such, it is critical for students graduating and entering the transdisciplinary, information-rich workplace to have solid information literacy skills and understand how to seek out and use information from traditional and non-traditional sources. With the support of an internal grant, librarians and an engineering technology professor at a large public research university developed and piloted a suite of micro-learning information literacy modules with micro-credentialing for undergraduate students. The topics covered in the modules include (1) effective information-gathering strategies, (2) competitive analysis, (3) patent information, (4) industry standards, and (5) informed communication. The foundational modules, created with stakeholder feedback from industry professionals, entrepreneurs, instructors, and students, are designed for instructors to use in their classes without direct librarian intervention. The micro-credentialing component allows students to share the digital badges they earn with potential employers via LinkedIn and other platforms. The modules and content are designed to be used by instructors across many disciplines as a tool to improve student outcomes. In this paper, we explain our module development and course integration processes and share selected results from a pilot integration in an engineering technology course and a business course. The selected results include counts of awarded micro-credentials and responses from a student perception survey. The findings will be useful for librarians and other educators interested in scalable approaches to integrating information literacy content focused on the university to workplace transition.

Introduction

Students graduating and entering today's workforce encounter an information literacy (IL) landscape that is much different than the environment they experienced in academia. On-the-job information needs move at a more rapid pace and employers provide less specific guidance than academic instructors, making it difficult for new university graduates to solve information problems [1]. For engineering and technology students, workplace information use involves less of the sources that are traditionally emphasized in academia (e.g., peer reviewed journal articles, books) and more of the resources heavily relied upon in industry, such as technical standards [2], [3], [4], [5]. Additionally, workplace projects require a high degree of interpersonal information gathering and communication with colleagues [6], [7].

Recent research from American Association of Colleges and Universities (AAC&U) indicates that employers view students as underprepared for the information needs of the workplace. A 2023 AAC&U survey of 1,010 executives and hiring managers reported that 70% of respondents viewed "locating and evaluating information from a variety of sources" as a very important skill for new hires, but only 54% of respondents reported that students are well-prepared with this skill [8].

To help address student IL skill gaps, engineering librarians have long integrated instruction into courses to support senior capstone projects and other assignments, which has shown to improve the quality of students' final projects and increase the number of references cited [9], [10]. However, often academic IL instruction is highly focused on supporting the specific course assignments, which may be much more defined, structured, and linear than workplace information problems. Additionally, this type of instruction often integrates library subscribed resources, which students may not have access to after graduation.

Improving workplace IL preparation for engineering, engineering technology, and business students has been an interest of ours for the last several years [2], [3], [11], [12], [13], [14]. To further this work, we submitted a proposal for an internal university funding opportunity that was well-aligned with our workplace IL interests. In early 2022, the Purdue University Innovation Hub, a campus unit created by our Provost's office to focus on course-based innovations at scale, issued an inaugural call for funding for projects that would make an impact on the quality of undergraduate teaching and learning. The call emphasized creating scalable, technology driven solutions that were transdisciplinary in nature and aligned with the future of work. In response, we proposed the development of a series of online, university-to-workplace focused information gathering and application modules, embedded in a micro-credentialing platform with a scalable structure. Our proposed goals were to 1) design, create, pilot, and assess the undergraduate IL workplace modules 2) and to promote and share our materials widely on campus so that any instructor could adopt the modules and badges for their students, à la carte based on the needs of their populations. Our intention was to create foundational, scalable modules that instructors could then build upon with higher level, subject specific assignments. The budget for the nine-month project was \$44,019 and included funds for our salaries and fringe benefits (\$40,019) (three of the authors are academic year faculty) and funds to pay stakeholders (\$4,000) (students, faculty, industry professionals, and a local entrepreneur) to consult with us on the module

content. The Libraries also provided a cost share of a staff instructional designer's time for video editing and enhancement.

We proposed to use a micro-learning model since this approach is popular in contemporary organizational environments [15], [16] and has been shown to be an effective mode of learning [17]. Micro-learning consists of creating directed instructional materials that are short in duration and available at the time of need [18]. Micro-learning is often referred to as "just in time learning," and the specific approaches used may vary, including brief videos, podcasts, other forms of instruction [17].

Additionally, we proposed the use of micro-credentials, also referred to as digital badges, as a mechanism to detail student competencies more granularly than grades and transcripts and to allow students to have nuanced discussion opportunities with potential employers about their information literacy skills [19]. Studies show that employers see value in micro-credentialing in general [20], and specifically with regard to IL applications [21].

We applied for this opportunity in February 2022 and were informed in May 2022 that our project was one of five awarded campus-wide with the inaugural round of funding.

Our research question for this paper is: How do undergraduate business and engineering technology students perceive online information literacy micro-learning modules?

We explored this question by surveying students using an instrument modified from Held & Gil-Trejo's usability study for online library tutorials [22].

University to Workplace Information Literacy Modules

Module Development Process

The modules were developed over several months, starting in May of 2022. With the funding we received, we were able to hire both internal and external stakeholders to help us in the module development process. These included two industry professionals who hire students from our programs, one local entrepreneur, and two undergraduate students (one business and one engineering technology). We also received informal feedback from several instructors hoping to use our content in their courses. After completing a review of the literature for pedagogical approaches like micro-learning [17] and backwards design [23], as well as topical content, we developed learning outcomes for each module. We then wrote initial drafts of the scripts and quiz questions for each module, and had our stakeholders read them and provided valuable feedback. Our stakeholder consultants were also available throughout the process to review script iterations, quiz questions, and completed videos. The feedback from these stakeholders helped us ensure the content was understandable at many levels, pedagogically sound, and truly reflected the information needs of the workplace.

To keep within the spirit of micro-learning, our goal was to keep each video within a three-to-five-minute time limit. This involved careful consideration of each line in our scripts in order to be clear and concise. Once the scripts were drafted and reviewed, we practiced and timed them to

make sure they fit in our time limits and made additional cuts when necessary. Once the scripts were finalized, we moved on to recording. Our initial plans were to record these in professional video production studios on campus, however a computer hack in the summer of 2022 made these studios unavailable. Though not ideal, we recorded modules one through four using Zoom. The campus studios were up and running for module five, and the audio and video quality are noticeably better.

As a cost-share for the grant, the Purdue University Libraries provided an instructional designer to assist with video editing, graphic design, and accessibility. The designer created graphics and animations that helped convey the information in the modules in an interesting and attractive manner. Additionally, the designer created and embedded captions in all videos to help with accessibility.

The modules were rolled out as they were developed over the course of the Fall 2022 semester in an undergraduate business class and two undergraduate engineering technology classes (see *Methods* for more details). We planned this after discussing with the course instructors when each module would be used in each class. We were unable to collect initial data on the Patents module due to the timing of the course content and finishing the module production. The modules were launched in the following months: Information Gathering, September 2022; Competitive Intelligence, October 2022; Patents, January 2023; Industry Standards, October 2022; Informed Communication, January 2023.

Micro-credentials were also an important component of our project, and we wanted to make the experience of earning and displaying a badge as seamless as possible for the students. To that end, we explored several options for a badging platform. As sustainability was a key aspect of our goals, we immediately ruled out all the options that required an ongoing financial commitment. We thoroughly investigated two main options: a Purdue developed badging software called Passport, and the integrated Awards function inside of the Brightspace Learning Management System. Though it limited our final modules to solely Purdue affiliated users, we ended selecting Brightspace for several reasons, including the ease of exporting badges, student familiarity with learning in the Brightspace platform, and Brightspace's ability to have more complex quizzing options. Ultimately, that was the right decision as Passport was retired shortly after we began work on the modules. Brightspace proved easy to use, and we were able to set up our modules as a self-enrolled course that students could sign-up for directly. The Awards function allowed us to set up parameters that were required to be met, in our case scoring 100% on each quiz in a module, and then would automatically award the badge to the students. Brightspace has an integration with Canvas Badges (<https://badgr.com/>), that allows students to export their badges directly into places such as LinkedIn.

Module Content and Descriptions

Information Gathering

In the Information Gathering module, students learn to review their information landscape as a student, employee, and entrepreneur, and learn how to optimize information retrieval from different systems and repositories, and to consider human sources of information.

The learning outcomes for the module are as follows:

After completing this module, students will be able to:

- Break problems into pieces in order to create a problem-solving process
- Define their information landscape as a student, employee, and entrepreneur
- Create a search string to efficiently locate information in web searches and databases
- Evaluate search and information gathering strategies (both database and human)

This module includes nine videos with corresponding quizzes. The video titles and lengths are as follows:

1. Using the KWHLAQ framework (03:03)
2. Defining your information landscape as a student (03:38)
3. Defining your information landscape as an employee (04:27)
4. Defining your information landscape as an entrepreneur (03:36)
5. Constructing database searches with shotgun and snowball (02:42)
6. Constructing database searches with building blocks (03:08)
7. Using Purdue Library databases (03:16)
8. Gathering information from humans (04:13)
9. Considering intercultural communication (04:25)

Competitive Intelligence

In the Competitive Intelligence module, students learn to identify and gather competitor and product information for private and public companies and consider how to use this information in an ethical way to make evidence-based business decisions. The learning outcomes for the module are as follows:

After completing this module, students will be able to:

- Identify the steps, categories, uses, and methods of Competitive Intelligence
- Understand how to do Competitive Intelligence in an ethical manner
- Locate Competitive Intelligence resources

This module includes six videos with corresponding quizzes. The video titles and lengths are as follows:

1. Competitive Intelligence and its uses (03:16)
2. Categories of Competitive Intelligence (03:39)
3. Competitive Intelligence ethics (04:12)
4. Competitive Intelligence methods and models (04:58)
5. Competitive Intelligence research (04:22)
6. Competitive Intelligence resources at Purdue (03:39)

Patents

In the Patents module, students learn about different types of patents, how to apply patent information, and how to effectively search patent databases. It was important to also include the limitations of this type of module, as well as make clear we were not providing legal advice. The learning outcomes for the module are as follows:

After completing this module, students will be able to:

- Articulate the use cases of patent information
- Identify the parts of a patent relevant to their use case
- Evaluate and critique a patent search strategy using multiple techniques and resources

This module includes nine videos with corresponding quizzes, plus an overview and disclaimer introduction video. The video titles and lengths are as follows:

0. Overview and disclaimers (01:19)
1. Introduction to utility patents (02:53)
2. How to read a utility patent (02:41)
3. Introduction to design and plant patents (03:07)
4. Overview of the patenting process (02:46)
5. Strategy for patent searching (03:01)
6. Patent searching with government datasets (03:01)
7. Patent searching with public datasets (02:51)
8. Patent searching with Purdue resources (03:04)
9. Demonstrating a patent search (05:46)

Industry Standards

In the Industry Standards module, students learn how to identify and access relevant industry standards for workplace practice. The learning outcomes for the module are as follows:

After completing this module, students will be able to:

- Define types of industry standards
- Articulate the use cases of industry standards
- Explain how industry standards are developed
- Distinguish industry standards from other resource types
- Create an industry standards information gathering plan

This module includes nine videos with corresponding quizzes. The video titles and lengths are as follows:

1. What is an industry standard? (04:58)
2. Defining types of industry standards (04:42)
3. Using industry standards: Who and why? (04:44)
4. Developing industry standards (04:11)
5. Common standards developing organizations (05:13)
6. Comparing standards to related information resources (04:09)
7. Discovering relevant industry standards (04:12)
8. Obtaining freely available standards (03:41)
9. Searching and accessing standards at Purdue (04:40)

Informed Communication

In the Informed Communication module, students learn how to use information to create evidence-based workplace communications. The learning outcomes for the module are as follows:

After completing this module, students will be able to:

- Explain the importance of workplace written and oral communication skills
- Distinguish types of workplace reports
- Identify common challenges with report writing
- Describe best practices for presenting your work

- Locate resources for professional communication

This module includes seven videos with corresponding quizzes. The video titles and lengths are as follows:

1. Communication in the workplace (03:56)
2. Writing professional correspondence (03:55)
3. Taking notes (03:22)
4. Types of reports (04:40)
5. Common challenges with report writing (04:25)
6. Presenting your work (04:09)
7. Finding resources for professional communication (04:35)

Additional project information and sample videos are available on our project website at <https://sites.lib.purdue.edu/workplaceil/>.

Methods

This study was approved as exempt research by Purdue University's Institutional Review Board (IRB) (#2022-1144). The modules, along with a student feedback survey, were integrated into three pilot courses: MGMT 110 Introduction to Management and Information Strategies, ENGT 480 (ET Capstone I), and ENGT 481 (ET Capstone II). MGMT 110 is a course for high achieving first-year business students. The course is a combination of introductory management and information literacy content taught using business cases. The course culminates in a case competition written and judged by business and finance professionals at the pharmaceutical company Eli Lilly. The course has a typical enrollment of 100 – 130 students each fall semester. In this course, the instructors integrated the Competitive Intelligence and Standards modules during the pilot phase. To integrate the content, they first required the students to complete the modules before they focused on these topics in class. On the topic of standards, the module was followed up with an in-class session and a standards group challenge assignment, both designed by two of the librarian authors and course instructors [24].

ENGT 480 and ENGT 481 is a two-course capstone sequence for senior undergraduate students enrolled in the School of Engineering Technology at Purdue University. The ENGT capstone courses are offered every fall and spring term and in total, approximately 250 students are enrolled in each of these courses, per year. In ENGT 480, three of the modules were integrated during the pilot phase (Information Gathering, Competitive Intelligence, and Standards) and in ENGT 481 one module was integrated, Informed Communication. One of the librarian authors (Phillips) attended class to introduce the modules and returned for a follow-up visit that included in-class activities to reinforce the learning after the Information Gathering module was implemented. The course instructor (author Berry) also told the students they were expected to utilize the learning from these modules in their capstone engineering design reports.

To help determine the effectiveness of the modules, we created a Qualtrics survey to collect information on student perceptions of the individual modules. The survey (see Appendix A), modified from Held & Gil-Trejo's [22] usability study for online library tutorials, included both Likert scale questions and open-ended questions for students to share their feedback. Students in

the pilot classes were required to complete the modules as a graded assignment, and they were also asked to take the survey after each module for extra credit. Students could take the survey anonymously, then identify their names in a subsequent survey to account for their extra credit. In total for the 2022-23 academic year, 126 students completed the survey for the Information Gathering module, 210 students completed the survey for the Competitive Intelligence module, two students completed the survey for the Patents module (though not required, these students chose to complete the module and take the survey), 123 completed the survey for the Standards module, and 54 completed the survey for the Informed Communication module. These numbers varied during the pilot portion of this project due to the phased completion and roll out of the modules.

The quantitative survey data was downloaded from Qualtrics and analyzed in Excel to calculate descriptive statistics.

Results & Discussion

Table 1 shows the number of badges awarded in the academic year 2022-23. This represents the total number of badges beyond the pilot courses. Our system does not indicate why an individual student completed a badge, so these numbers potentially include badges awarded to students in other classes on campus where faculty implemented our modules (we know of at least one other course), as well as badges awarded to students who self-enrolled in the module series on their own (not part of a course). We awarded 962 badges to students during this timeframe.

Table 1: Badges awarded during the 2022-23 academic year.

Module	Badges Awarded
Information Gathering	219
Competitive Intelligence	317
Patents	30
Industry Standards	235
Informed Communication	161
Total	962

Also not reflected in these numbers is the use of our materials by our industrial stakeholders. After working with us as consultants, two of our industrial consultants requested access to the videos for use in onboarding new employees. We gave them access to our videos, but we were not able to give them access to our learning management system and the ability to earn badges, since Brightspace usage is restricted to Purdue affiliated users.

Table 2 and Figures 1-3 contain selected comprehensive results of the feedback surveys from students in the pilot courses. We chose to present comprehensive results (rather than results by class, gender, etc.) since our aim for the pilot integration was to gauge overall student impressions of the module series. We omitted presenting the results for several questions that were more technical in nature (e.g., sound quality). We had 515 total responses across all five modules, slightly more than half the number of badges awarded. Students who completed multiple modules were able to submit surveys for each module, but we did not identify individual respondents.

Students were asked a variety of questions about how they perceived the value of the modules they had completed, as well as their impressions of the modules on a technical level, the results of which are shown in Table 2. The questions were phrased to ask students whether they agreed or disagreed with a list of statements on a Likert scale of 1-5, with five being the strongest agreement. Students were also asked for demographic information, as seen in Figures 1-3. Responses to questions about the value of this material to the students were highly positive. Students generally felt that the material was relevant and useful to them, and they indicated that they felt more confident after completing the modules.

Table 2: Average survey results for each module in the 2022-23 academic year.

Module	n	The module is relevant to you	The module has improved your understanding of the concepts	The module is the right length, neither too long nor too short	The information is easy to recall for the quiz
Information Gathering	126	4.43	4.36	4.34	4.13
Competitive Intelligence	210	4.50	4.41	4.58	4.57
Patents	2	5.00	5.00	5.00	5.00
Standards	123	4.30	4.51	4.35	4.41
Informed Communication	54	4.35	4.22	4.17	4.31

Module	n	Quiz questions are helpful for reviewing the videos in the module	The information in the module is useful	The process to earn a digital badge was clear	The process to share a digital badge was clear
Information Gathering	126	4.24	4.38	4.52	4.21
Competitive Intelligence	210	4.64	4.48	4.73	3.67
Patents	2	5.00	5.00	5.00	3.00
Standards	123	4.50	4.50	4.75	3.92
Informed Communication	54	4.33	4.20	4.41	3.85

Module	n	The module increased my confidence in performing university-level research	The module improved my skills in performing university-level research	The module increased my confidence in preparing to transition to the workplace after graduation	I would recommend this module to a peer
Information Gathering	126	4.24	4.17	4.18	4.02
Competitive Intelligence	210	4.15	4.17	4.02	4.06
Patents	2	5.00	5.00	5.00	5.00
Standards	123	4.28	4.33	4.22	4.15
Informed Communication	54	3.93	4.09	4.00	3.96

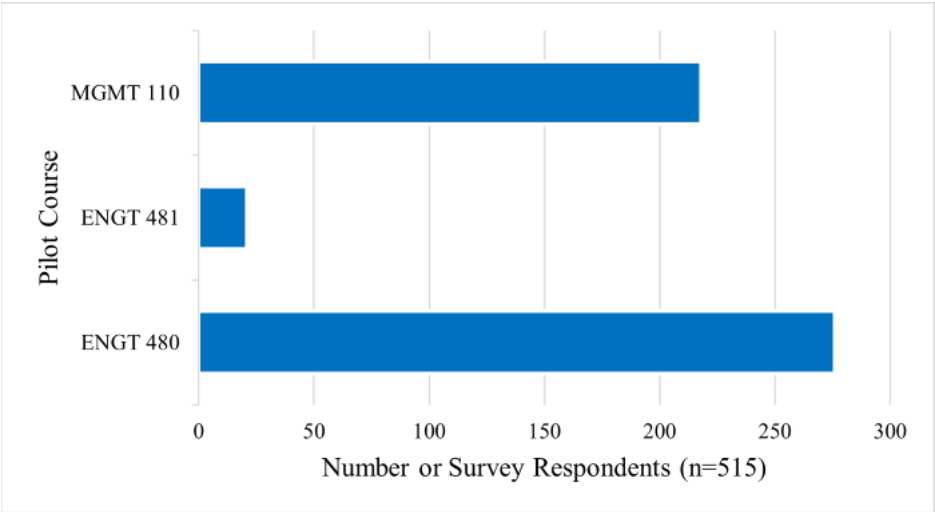


Figure 1: Pilot course enrollment of survey respondents.

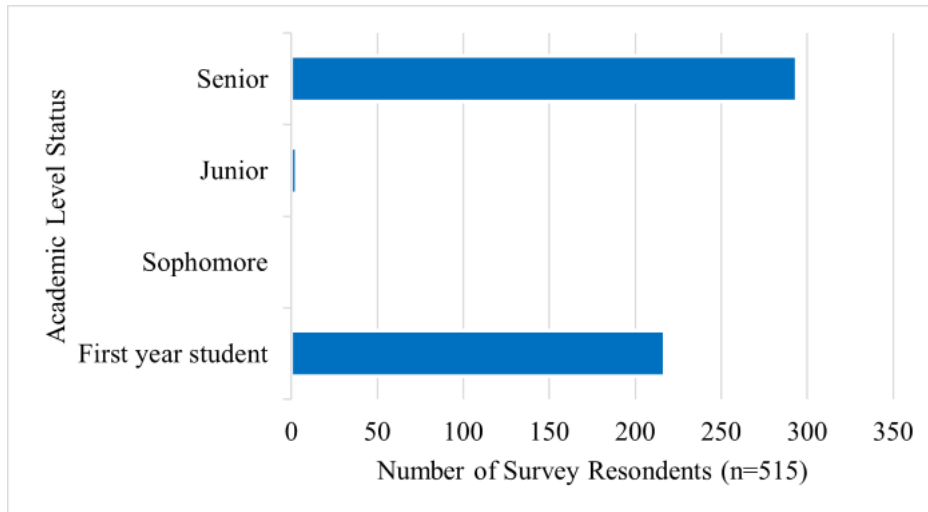


Figure 2: Academic status level of survey respondents.

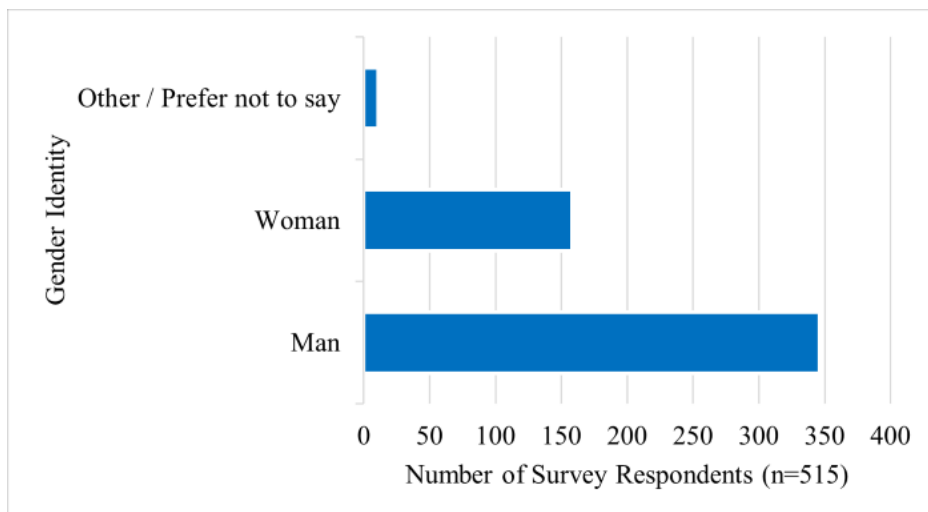


Figure 3: Gender identity of survey respondents.

Figures 1-3 show the demographic responses of the students in the pilot courses. Figure 1 indicates a more or less even split between engineering technology students and management students. Figure 2 correspondingly shows a similar split between first year students and senior students, accounted for by the fact that the engineering technology course was senior level and the management course was primarily targeted at first year students. Figure 3 indicates that the response pool was roughly two-thirds male. The option for “other” in the survey allowed for free text response, and responses included “lizard wizard,” “attack helicopter,” and “choo-choo.”

Students were also able to provide qualitative feedback, specifically how they plan on applying the content they learned in this module. Here is a selection of the responses.

- [Information Gathering] While working in the field, when needing to do some research, I will know how to go upon doing so and who to reach out to and how to reach out to them.

- [Information Gathering] I feel a clearer understanding of how to use the Library and I now understand how who I should interview if the need arises for a future employer.
- [Information Gathering] I will be able to apply this content when I return to my job at Cummins following my graduation.
- [Competitive Intelligence] I will use this to make sure information is shared correctly and used in an ethical way where the company I am working for will not get in trouble for anything I may do.
- [Competitive Intelligence] I will be able to use my badge to show my intelligence on my LinkedIn and it will help me stand out from other applicants.
- [Competitive Intelligence] The information I learned in this module will help me apply basic skills such as analyzing internal and external factors when running an organization. If I were to hold a leadership position in a club or social group, I might use a SWOT analysis to see what can be improved upon.
- [Industry Standards] I will apply this knowledge when referencing standards in my engineering firm job.
- [Industry Standards] I will apply the content I learned in this module to when I want to start a business of my own. There are many standards that I may need to comply to, while there could be some voluntary standards.
- [Informed Communication] I learned a lot about emailing in my co-op but these videos really cemented what I was already doing!
- [Informed Communication] Not sure at this moment but can probably use the note taking skill in the future.

Takeaways

Overall, we were very pleased with student buy-in on the information literacy modules, both in terms of the micro-learning and micro-badging format, and also the feedback on the module content and this style of instruction. Usage has also expanded well beyond our initial set of pilot courses, in some cases without our active involvement, indicating a campus audience for this subject matter in this format. Additionally, the feedback from the Purdue University Innovation Hub, our primary funder, and library and industry stakeholders has been extremely positive. We were also able to use the feedback from the student surveys and instructor conversations to create a video that showed how to export a badge from the Brightspace learning management system, to streamline this process for students. We hope to use additional feedback to make future improvements.

Our findings may be useful for other librarians and educators who are looking to create scalable information literacy modules using a micro-credentialing or micro-learning approach. The favorable response we have received from our campus and industry partners may also encourage other librarians to apply for applicable funding opportunities, on their campus or externally, to address similar needs at their institutions.

Limitations

Our study includes several limitations. While student perceptions are an inherent limitation in any survey of this kind, we are building some assignments for these courses that would focus on

student application of the material as a measure of learning effectiveness. There is also the potential for our modules to go out of date. The funding we received was one-time and we are currently looking for additional opportunities to build on and continue our current module series. Due to the aforementioned disruption in the video production rooms on campus, we were also limited in the quality of our video and sound for four of the five of the modules. In future iterations, we would like to have a higher production quality for our sound and video.

Conclusion

This paper describes how librarians and an engineering technology professor at a large public research university developed and piloted a suite of micro-learning information literacy modules with micro-credentialing for undergraduate students, focusing on preparing students for the information literacy needs of the workplace. The pilot results show that undergraduate engineering technology and business students generally perceive the module series as useful and applicable to them.

Next steps for this project include exploring additional possibilities for distribution, both on our campus and to a wider audience. Additional outreach is necessary to get these modules integrated into more courses and more programs on campus, ideally with continued librarian involvement in order to craft relevant, course-specific assignments and lesson plans to accompany the modules, as was our practice during the pilot phase. Additionally, we plan to survey or interview course instructors to gather their feedback on using the modules. Also, once we are able to gather data from more students beyond the pilot implementation, we plan to publish a journal paper that will provide a more granular look at the data, integrating tests of significance as well as analyzing the results by classes or disciplines and demographics.

We are also exploring additional sources of funding to produce more modules based on stakeholder feedback (one notable idea is a module on handling proprietary and confidential information), to increase our video production value, and to make the modules available to external users, outside of our campus learning management system. Much of our content in this pilot is Purdue branded and Purdue specific. If we are able to obtain external funding, we plan to create a series of open access modules with a CCBY license that is not Purdue specific or branded to distribute for wider user.

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Appendix A

University to Workplace Information Strategies Module Feedback Survey

Which module(s) did you complete? (Select all that apply)

- Module 1: Information Gathering
- Module 2: Competitive Intelligence
- Module 3: Patents
- Module 4: Industry Standards
- Module 5: Informed Communications

[Used logic and opened the following questions for each module selected]

Please share your honest feedback with regard to: Module X

We will use your response to improve the module for future offerings.

[All of these statements were built into a 5 pt Likert scale – Agree, Somewhat Agree, Neither Agree or Disagree, Somewhat Disagree and Disagree]

The module is relevant to you.
The module has improved your understanding of the concepts.
The module content is generally clear.
The audio quality of this module is generally good.
The module language is understandable, not too high level.
The module contains the right amount of detail, not too much or too little.
The module is the right length, neither too long nor too short.
The module is engaging (holds your attention, interesting).
The information is easy to recall for the quiz.
Quiz questions are helpful for reviewing the videos in the module.
The information in the module is useful.
The process to earn a digital badge was clear.
The process to display a digital badge in LinkedIn was clear.

[All of these statements were built into a 5 pt Likert scale – Agree, Somewhat Agree, Neither Agree or Disagree, Somewhat Disagree and Disagree]

The module increased my confidence in performing university-level research.
The module improved my skills in performing of university-level research.
This module increased my confidence in preparing to transition to the workplace after graduation.
I would recommend this module to a peer.

How will you apply this content you learned in this module?

What recommendations do you have for improving the module?

Please share any other comments you have about the module here:

Demographic questions [appeared at end of survey]

Which course did you complete the module(s) for?

- MGMT 110
- ENGT 480
- Other class (please specify):

What is your student classification?

- First year student
- Sophomore
- Junior
- Senior
- Graduate Masters Student
- Graduate PhD Student

Please indicate your gender(s). Select all that apply

- Man
- Woman
- Non-binary
- Another option not listed here (please specify): _____
- I prefer not to answer this question

Are you completing this feedback survey for a course (as either a requirement or for extra credit)? If you answer yes, you will be taken to a form where you can enter your name and course number.

[Form 2]

University to Workplace Information Strategies Module Feedback Credit Survey

Please enter your name and select your course number:

Name:

Course number:

- MGMT 110
- ENGT 480
- Other class (please specify):