Tell Me Your Business: Assessing the Teaching Needs of Undergraduate Business Faculty

Nora Allred  
*Michigan Technological University*, nsallred@mtu.edu

Lauren Movlai  
*Michigan Technological University*, lmovlai@mtu.edu

Jennifer Sams  
*Michigan Technological University*, jsams@mtu.edu

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Tell Me Your Business: Assessing the Teaching Needs of Undergraduate Business Faculty

Nora Allred, Lauren Movlai, and Jenn Sams

Michigan Technological University
Introduction

Academic libraries often fill a variety of roles in response to the needs of teaching and research faculty while simultaneously navigating a rapidly changing information landscape. As higher education embraces students' desire for active learning, experiential learning, and service learning, the support needs of teaching faculty also change. In the spirit of providing high-quality, relevant support, librarians at Michigan Technological University partnered with Ithaka S+R to explore the evolving teaching needs of Business Faculty.

In Fall 2018, Ithaka S+R approached the Van Pelt and Opie Library at Michigan Technological University with an offer to participate in an interview-based research project. Michigan Tech is a rural, STEM-focused school with approximately 5800 undergraduate students. Of those, 319 are enrolled in the School of Business and Economics (SBE). The School offers majors in accounting, finance, engineering management, management, management information systems, and marketing. Courses are taught by 26 faculty across a range of related fields and research areas. Its programs are accredited by the Association to Advance Collegiate Schools of Business (AACS), and its stated vision is to produce, “...tech-savvy business graduates and business-savvy STEM graduates” (“School Profile,” 2019). At present, the library provides direct support to the School via collection development and library instruction. Some SBE faculty and students are reached indirectly through other programs, collections, and instruction that the library participates in.

As of August 2019, the library subscribed to more than 20 databases tailored specifically to business, economics, and other disciplines that fall under the SBE. The library also maintains a small business-specific collection of physical materials, known as the Opie Business Collection. There is ongoing communication between the Collections librarian and a representative from the school to address collection needs.

Instruction librarians work with nearly all SBE undergraduate students via a library visit embedded in an introductory Management course in their first or second year, and many also attend a library session in the University's required first year composition course. Librarians work with several upper level SBE courses to introduce market research, company reports, and other discipline-specific resources. Library staff have also collaborated on 3D printing instruction in key marketing courses.

Michigan Tech librarians, however, had a sense via both formal and informal interactions, that there continued to be gaps in library support for SBE. This project presented an excellent opportunity to investigate, through one-on-one interviews and qualitative analysis, what faculty need within the context of teaching and the role the library can play in fulfilling those needs.
Methodology

A presentation about the study was made to the School of Business and Economics faculty and staff members, describing the study and its objectives. All faculty currently teaching were then sent an email invitation to participate in the study, which consisted of a one-hour interview with a librarian conducting the study. Twenty-six faculty members were invited. Nine were interviewed for this study.

Participants included new, mid-career, and long-time faculty teaching undergraduates in economics, finance, operations and supply management, and marketing courses. The semi-structured interview instrument created by Ithaka S+R (see Appendix A) was used as a basis for the interviews, but interviewees were encouraged to elaborate on points of particular significance to them or their teaching. Interviews were conducted in private offices either in the library or School of Business. Each participant signed an Informed Consent as required by the IRB.

All interviews were audio recorded, and initial “draft” transcripts were created automatically by the recording program. The project team manually cleaned and anonymized the transcripts. Each librarian was assigned six transcripts to independently code, ensuring each transcript was reviewed by two librarians. Librarians then met as a group, compared the coding and identified major themes. A code book was derived from this process (see Appendix B). Themes included students' information and data literacies, course materials selection and creation, course materials access, software training, and new faculty engagement.. The transcripts were then coded line-by-line, pulling out relevant text to inform and support our findings.

Findings & Opportunities

Information Literacy

On Michigan Tech's campus, information literacy (IL) was adopted as an undergraduate student learning goal in 2012. The expectation across campus is that by graduation, all undergraduate students, “...will be able to analyze the need for, strategically access, critically evaluate, and use information effectively, ethically, and legally” (“Undergraduate Student Learning Goal 6,” 2016). While no faculty explicitly used the phrase “information literacy,” numerous interviews touched on information literacy skills. Some skills fell under the guise of “technology agility” which is a required learning outcome under AACSB accreditation. The definition of “technology agility” encompasses many skills, but overlaps with information literacy at the following points:
• Evidence-based decision making that integrates current and emerging technologies, including the application of statistical tools and techniques, data management, data analytics and information technology throughout the curriculum as appropriate

• Demonstration of higher order cognitive skills to analyze an unstructured problem, formulate and develop a solution using appropriate technology, and effectively communicate the results to stakeholders (AACSB International, 2018)

Many of the assignments that faculty described to address the skills defined under Technology Agility required proficiency in information and data finding, evaluation, and use. For example, a recurring theme in several interviews was that students struggle to read academic, peer reviewed literature, making it difficult for them to critically evaluate and use it effectively. In some cases, students simply did not have enough background knowledge. One faculty member stated, “I don’t necessarily want them to go find peer reviewed journals, just because I think that that content might be too over their head,” and another said, “The undergraduate classes, I don’t always have the journal articles because it’s just hard for them to weed through.” In some classes, faculty worked around these gaps by focusing more heavily on real-world and popular examples. In others, faculty integrated direct instruction on academic research. One explained, “Students have to do a semester long project. From the very beginning, they have to identify sources so they are going to be prepared for their project and discuss what they had in mind. Yeah, so they have to do a literature review and build upon the lit review.” That same faculty member requires students to write a budget paper that is laid out like an academic paper, “They do have to write a full budget paper. It’s a paper that has an abstract, an introduction, the literature review, a data description section, you know, charts and graphs and then, the methodology empirical results section, the results.”

At present, library-led instruction in SBE courses largely focus on more traditional IL skills, such as determining the scope of an information need and finding discipline-specific resources. Students’ struggles reading and understanding the structure of literature suggests it might be beneficial for librarians to work closely with business faculty to highlight not only the scope of resources available to students, but the ways in which information is used in order to construct business literature specifically. This collaboration could include assignments, instructional materials, and more that could be used across SBE courses.

Beyond reading literature, faculty also indicated students tend to search for sources in easy, familiar ways, stating, “The students just not … able to locate things correctly, so not really knowing how to search for things… so I do normally see them finding their information from Google.” and “… they usually start with Google.” They often search for answers rather than to explore or build foundational knowledge. One faculty member clarified that students were savvy searchers in certain contexts, but unable or unaware that looking for seminal literature on a topic is critical, “They all are very smart at finding things and whatnot, but there are already news sources where we know they’re going to and they
didn't mention the name of a paper. But, you know, the topic you're looking for, right? So you want to see the seminal papers in that area, right? This ... they have to be taught, because they're not going to learn by themselves.” In other cases, faculty observed that students seemed aware that more than a basic search was necessary, but students struggled to execute advanced searches, “There's people that know it [efficient research] to do it. There's people that have no clue how to be efficient. So they waste like eight hours to do something that they could do in half an hour. And then they come complaining that they have way too much research because they are inefficient at doing it.”

Faculty have developed a wide range of strategies for bridging the gaps they observe in students’ skills, including: direct instruction on finding sources by either the faculty member or a librarian, provision of sources for activities, and heavily structured templates for papers and assignments in order to introduce students to key skills. When considering these challenges, it is also important to note that many business courses at Michigan Tech are also taken by non-majors. By and large, most of the students in these classes have had some form of information literacy instruction and may have even worked with the library multiple times across their academic careers. Thus, the question becomes is there a widespread gap in students’ information literacy skills across the university or are students struggling to apply information literacy skills learned in other disciplines to business topics and research? Via future research and exploration in this area, librarians can determine for which classes it’s the latter and information literacy support in SBE could focus more heavily on helping students make that switch between disciplines.

Data Literacy

Data are used widely within SBE. Data may be an end goal of a research or survey assignment, a portion of a paper such as a “written budget report...a paper having...a data description section,” a subject for analysis, or utilized in problem solving. Teaching students to discover, interpret, and evaluate data are areas of focus for many of the faculty we surveyed. This skillset is frequently referred to as “data literacy,” distinct but with some parallels to information literacy. There is also overlap with “technology agility” here as well, specifically, “Ethical use and dissemination of data, including privacy and security of data” (AACSB, 2018).

Faculty highlighted gaps in “getting students to think about data,” and [finding] “a better way to tell my students to find data.” Understanding the distinction between data and its application in reports was also important, as one example noted, “...instead of digging [for data source] themselves ...they find a report [containing the data]...I tell them not to [do this.]” Developing students’ ability to collect data from original data sources such as surveys and interviews is also an instructional objective, “I'm training them as to where to get the original data source” or “I make students use different data sets...because every platform has a different way to show the data.”
Sources of data were varied, perhaps due to different needs and applications in the sub-disciplines within business and economics. Data were sourced from publisher’s courseware packages, open government sites (United States and international), the faculty member, social media sites, and supporting documentation to articles and reports. Data types noted in our surveys included demographics, industry profiles, market performance and projections, economic performance factors, and social media ratings. An emphasis was also placed on “real world” data and “interactive” data as desired instructional content.

Some faculty expressed a desire to “develop better guides for...data sources,” or incorporate data into their instruction, “data is the thing that could be most useful for that course.” The library is a natural partner for meeting these objectives through its role in course integrated instruction.

At present, the library subscribes to several data sources including Statista, ICPSR, Demographics Now, and IBISWorld. Many faculty were unaware of these resources and so unaware that these were available to incorporate into their instruction. There are opportunities for partnerships with faculty to increase awareness and to develop data literacy instruction.

Content Selection

Textbooks came up consistently across faculty conversations. This is not surprising at all given the current climate of both higher education and Michigan Tech, where students, faculty, and librarians are having prominent, frank discussions about the value of expensive textbooks for students. What stood out during these interviews were the different criteria that faculty used to make the decision to use textbooks and then, for those who decided to use textbooks, what criteria were used to select a particular textbook.

Faculty who chose to use textbooks did so for a variety of reasons. Several were teaching a course that was taught by multiple people each semester and a common textbook had been agreed on for consistency. One faculty member pointed out that the value of the textbook lay in the practice and application it provided, “The only thing I require is a textbook. It’s a small one. It's kind of more like a workbook.” Several interviewees highlighted that student and course level played into their decision. Generally, the sense was that textbooks are more useful in introductory or foundational classes. One faculty member stated, “I actually rely on the textbook quite a bit because it's an intro course, and for an intro course, students do need to rely on the textbook.” However, another another emphasized “...textbooks just have so much information in them. And some of it's interesting, and some of it is kind of way more technical.” In this case, the faculty relied much more heavily on media resources, class notes, and real-world examples to illustrate introductory concepts and hold students’ interest. In another class, the faculty highlighted that the field changed too quickly to lend itself to a single textbook that stayed constant from semester to semester.
Many faculty supplemented textbooks with articles, both academic and news, that they curated for the course. In both cases, faculty indicated that they wanted to provide high-quality resources, but that ease of access played a direct role in whether or not a given news or research article was selected for the class; articles available from ‘free’ online sources (e.g. Forbes, Reuters, Washington Post, etc.) were at times selected over those that seemed to be behind paywalls. At least two different faculty members indicated an explicit desire to provide resources for students other than scholarly, peer reviewed articles. One expanded on this, saying, “I don’t necessarily want them to go find peer reviewed journals ... but I want them to have some sort of source to back up their opinions, so that they’re going to be fact based.” With regard to news sources, faculty indicated a desire to provide sources to students that were “standardized” with at least a “minimum of quality controls.” One faculty member also indicated an interest in finding and using white papers in class, as these are often of good quality and more accessible than scholarly articles.

More than half of the faculty interviewed consider YouTube and other video platforms to be a significant source of course materials. Many turned to videos to introduce or illustrate basic concepts prior to class, facilitating a flipped learning model, while others used more in-depth video case studies. One faculty member summarized the benefit, saying “My class model has become more challenging because I don’t need to talk about the basic stuff. Basic stuff is available on YouTube.” While only one faculty member described producing their own videos, several expressed interest in learning how to do so. However, there was much variance in the levels of support faculty desired in this area. Some wanted training on individual tools, such as Articulate and Captivate 360, while one envisioned a dedicated facility, “We want a facility to help faculty to develop online materials. Creating, transcribing, editing, and converting files... high-quality.” At the moment, the university's Center for Teaching and Learning (CTL) provides support for course media creation, but not at the level described by first faculty member. This could be an area where the library could better leverage its additional space to expand existing support.

Across these interviews, faculty focused on methods of evaluating sources beyond the peer reviewed/not peer reviewed dichotomy. This is an area the library can absolutely expand support in by highlighting the white papers, trade journals, video materials, etc. found in our collection. In conjunction with this, library collection policies should be reviewed to ensure that business resources are curated to take into account the speed of change in some aspects of the field and the critical importance of current, real world application via news sources and similar.

It became clear over the course of these interviews that teaching faculty's methods for material selection are varied and nuanced. It is critical that both libraries and anyone on campus dedicated to making class materials more affordable for students to understand why faculty choose a particular textbook, article, video, or course pack for their students.
Access to Content

Most faculty members seem to have embraced Canvas, the university’s learning management system (LMS), and perceive that their students like having class materials provided through Canvas. One trend that came up across interviews was the need for better access to and faculty awareness of changing library subscriptions. One faculty member maintained a list of disciplinary databases for students and was unaware that access to several had changed or rebranded, “We used to have IBISWorld, Business Global Insight. Some of those databases are gone...I used to have LexisNexis, but now I have NexisUni.” This particular faculty member was aware that new databases were also added to the collection, but had to perform independent research to discover this. With regard to providing their students with selected journal articles, it was common for faculty to share these via Canvas.

Overall, most faculty found Canvas helpful, but had some problems providing content to students via the platform. Approaches faculty took were varied. A few mentioned finding articles, printing them, scanning them, and putting the scanned PDFs into Canvas. One faculty member kept all the articles for all of the classes taught on one flash-drive. Some provided links to the articles for the students to download themselves. Faculty relied on the Jackson Center for Teaching and Learning (CTL) and occasionally tech-savvy students to add materials to Canvas when faced with challenges. Additional instruction and information about providing access to library materials on Canvas could be a potential area of involvement for the library.

Some faculty members’ concerns about copyright stopped them from putting content in Canvas. Currently, the library provides a detailed guide on copyright as it pertains to instruction and presents a copyright workshop for faculty. Both cover accessing or including copies of protected works in Canvas. Consultations on copyright with a librarian are also available. Coordinating with the CTL to ensure copyright-related Canvas issues are referred to librarians would increase awareness of the library’s knowledge of copyright in the teaching environment.

Faculty members also discussed access and lack of access to business news and current events in the interviews. “I use a lot of New York Times readings, because just because they have really good well written articles on the topics... if I do a direct link after 10 readings, it'll say you don't have subscription. So what I have to do, and I don't always remember to do it, but I have to like print off a copy scan it, and then link it, which if you're doing that with many readings, that's a lot of additional work”. The New York Times isn’t the only news provider that faculty members use that has limitations to access. “And those [news articles] are publicly available, typically - though we see increasingly more subscription based access like the Financial Times, Wall Street Journal, they make it hard. Occasionally I get access when they are all articles and they make them available. Some of them.” These concerns highlight a gap in the library’s collection. While we do have subscription access to many
major publications, access does not always include related online content such as blogs, side bars, opinion pieces, most current articles, etc. These often don't appear in traditional newspaper subscription packages and are not available via interlibrary loan. At this point, libraries as a whole do not have a solution for this gap other than working with faculty to find alternate content.

Software Training

The need for software awareness and training was a theme that appeared across many of the interviews. Faculty wanted to know what software was available, “I would like to know more about ...the different platforms that are available to create instruction materials.” Software for lecture capture and video production was also desired. Specifically, Adobe Captivate, Articulate 360, and Panopto were mentioned. The need to keep up with new or rapidly changing software was also noted, “It used to be that every additional piece of software that came out, we would have a training session...now things like Canvas change daily. So you have to figure it out for yourself or go...for help.” Faculty also expressed a desire for wider access to business-related applications, “I did the class in Excel because it was the software everyone had access to. But it would be nice to use something that everyone had access to that we can do statistical processing in.”

Faculty often expressed that students lacked fundamental business software skills, “I don't see an SAS training, I don't see IBM SPSS training. I don't see start-up training. I don't see data mining training” and “I use a lot of software. So in project management that used to be a little bit of a challenge because the students were not on the same level.” Other software that faculty want their students to have training in included: Microsoft Project and Office, and Minitab, a statistics package. When students did not possess these basic skills, it was unclear where they might receive the expected training. There is currently minimal software available to students through the university. The library was recognized as having a potential role. One faculty member previously approached the library to develop software training, “I [was] just so happy ... to obtain support [for] 3D print training and ... and SPSS material. One more thing I want to see from the library is the seminar. Additional seminar for statistical analysis...Librarian not teaching it, but somehow they [are] organizing it...” Creating partnerships across campus to facilitate software training is an avenue that the library can explore further.

New Faculty Support

In the course of our interviews, it was discovered that the newer faculty we spoke to desired further assistance in preparing for their careers as faculty at the university. New faculty participate in a three-day orientation during which they are introduced to the services and resources of the university that support their research and instruction duties. However, comments such as “I feel like I'm kind of at that point where it's like, I don't know what I don't know’ and “In the beginning...it was the time I couldn't really understand what I need(ed.),” are indicative of a need for further, more in-depth awareness of the campus
services available to new faculty members for developing their teaching careers at Michigan Tech.

Librarians working with faculty could add consultations with new SBE faculty to their targeted outreach efforts. Consultations would include advising new faculty of the business-specific services and resources available through the library as well as “putting a face” to the library.

Conclusions & Next Steps

A number of major opportunities were revealed over the course of these interviews. Several ideas expressed to support or enhance teaching may be best served through partnerships with other entities on campus that have a vested interest in supporting the teaching needs of SBE. One of the first steps will be sharing this report with those other areas.

Within the library specifically, librarians have been developing skills and knowledge in data literacy. Because faculty are already utilizing data in their courses, the library is well-poised to become a partner in developing students’ data literacy skills. Similarly, while no faculty explicitly said they would like improved information literacy support, they did identify a number of discrete skills, such as analyzing the make-up of discipline-specific texts, accessing good sources, and performing literature reviews, that the library has the expertise and resources to support. Information Literacy is a campus-wide undergraduate student learning goal, and as such, this support would meet the AACSB requirement that schools “… have learning goals and/or adhere to university learning goals.” In both cases, there is an opportunity for the library to assist in the development of a structured, supportive curriculum that ensures students develop skills over time with minimal repetition across SBE courses. This has the added benefit of supporting the SBE’s accreditation requirements for AACSB.

Accessing and being aware of existing library materials also stood out as a critical need. The library is developing opportunities for richer engagement. Working with an appointed SBE faculty member, librarians communicate resources and services tailored to SBE’s specific needs. The faculty member can then pass this information to their colleagues at the school’s faculty meetings. This also opens a communication pathway for highlighting services and programs including the benefit of using open education resources, course reserve, interlibrary loan, and others.

As a result of this study, the library looks forward to providing support that more directly addresses the School of Business and Economics’ accreditation needs and teaching activities.
References


Appendix A

Semi-structured Interview Guide, Ithaka S+R

Background and Methods

1. Tell me about your experiences as a teacher [E.g. How long you've been teaching, what you typically teach, what you currently teach]
   a. Does your teaching incorporate any particular teaching methods or approaches? [E.g. experiential learning, case method, design thinking, problem-based learning, flipped classroom]?
   b. Have you received any support/relied on others towards developing your teaching approach?
   c. Are there any other supports or resources that you think would be helpful for you?

2. Do you currently teach more general research or study skills in any of your courses? [E.g. finding sources, evaluating sources, data literacy, financial literacy, critical thinking]
   a. How do you incorporate this into your courses? Have you experienced any challenges in doing so?
   b. Does anyone support you in doing so and if so how? [E.g. instruction classes offered through the library]
   c. Are there any other forms of support that would be helpful in doing this?

Working with Materials and Content

1. What materials do you typically create in the process of developing a course? [E.g. syllabi, course website, online modules, lectures, assignments, tests]
   a. How do you make these materials available to students?
   b. Do you make these materials more widely available? [E.g. public course website or personal website, sharing via listserv]
   c. How you experienced any challenges in creating and/or making these materials available?
   d. Do you ever consult with others as part of creating and/or making these materials available?
   e. Are there any supports that could help you in creating and/or making these materials available?
2. Beyond the materials you create in the process of developing a course, what other kinds of content to students typically work with in your courses? [E.g. readings from textbooks or other sources, practice datasets, films]
   a. How involved are you in how this content is selected and/or created?
   b. How do you make these materials available to students?
   c. Do you make these materials more widely available? [E.g. public course website or personal website, sharing via listserv]
   d. How you experienced any challenges in selecting, creating and/or making these materials available?
   e. Do you ever consult with others as part of selecting, creating and/or making these materials available?
   f. Are there any supports that could help you in selecting, creating and/or making these materials available?

Working with Tools

1. Have you considered using and/or are you currently working with data and/or analytics tools to understand and improve your teaching? [E.g. dashboard or an app through a course management system, early alert notification system on student performance via email]
   a. If no, why? (e.g. unaware of such offerings, current offerings are not useful, opposed to such offerings)
   b. If a tool could be designed that leverages data (e.g. about students) in a way that would be helpful towards your teaching, what data would feed into this and how would this tool ideally work?
   c. Do you have any concerns in relation to how this data is collected and/or leveraged (e.g. privacy)?
   d. If yes, what data and/or tools have you used and how? To what extent was this useful?
   e. Do you have any concerns in relation to how this data is collected and/or leveraged (e.g. privacy)?
   f. What are some of the greatest challenges you've encountered in the process of using these tools?
   g. Do you rely on anyone to support you in using these tools?
   h. Are there any other forms of support that would help you as you work with these tools?

2. Do you rely on any other tools to support your teaching (E.g. clickers, smart boards)? If so,
   a. What are some of the greatest challenges you've encountered in the process of using these tools?
   b. Do you rely on anyone to learn about and/or support you in using these tools?
c. Are there any other forms of support that would help you as you work with these tools?

Wrapping Up

1. If there was a magic wand that could help you with some aspect of your teaching [beyond giving you more money, time, or smarter students], what would you ask it to do for you?

2. Are there any ways that library or others on campus have helped you with your teaching in ways that have not yet come up in this interview?

3. Are there any issues relating to your experiences teaching that you think that librarians and/or others on campus who support you and your students should we be aware of that have not yet come up in our discussion? [e.g. on the role of the library in supporting teaching, what makes teaching in your specific area of Business or Business more widely that warrants unique support]
## Appendix B

### Final compiled Codebook, June 2019

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<th>Codes</th>
<th>Description</th>
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<td>Library as basic skills provider</td>
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