

Technology in Teaching Family Science: What We Do and Why We Do It

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ABSTRACT. Technology is impacting the way we teach and the way students learn. The purpose of this study was to gather information on technology choices in Family Science courses and to explore what is driving the way Family Science instructors are choosing to integrate technology in their courses. What sets our study apart is our focus on the use of technology in Family Science classrooms. The adoption of technology is often done without fully taking time to analyze why we are using it, what is accomplished through its use and what the consequences may be. Ideally instructors engage in critical reflection about what technology we are using and why and how the selected technology should facilitate learning, encourage student engagement and higher order learning outcomes.

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Technology in Teaching Family Science: What We Do and Why We Do It

We are living in the midst of a technological revolution (Bostrom, 2006). This is referred to in different ways, such as “the information age,” “the digital age” (Tapscott, 1998) and the “third industrial revolution” (Beinhocker, 2006). These are broad macro-developments that are shifting economic and political systems on a global scale (Clement & Vosko, 2003). Rapidly evolving digital technologies have infiltrated daily life, changing the ways we communicate, access information, create and consume media, and how we teach and learn. Post-secondary institutions are situated within the context of these macro changes and are reflecting on how best to respond (Fisher, Rubenson, Jones & Shanahan, 2009; Kandiko, 2010; Marginson & Considine, 2000).

At all levels of education, there is a dominant discourse of ‘rapid change’, increased globalized competition and the knowledge economy (Stomquist, 2002). This has led to calls for shifts in curriculum development and delivery to meet the needs of ‘digital natives’ (Tapscott, 1998) and 21st Century learners (Beetham & Sharpe, 2013). Key 21st Century skills include creativity, collaboration, and skills in problem solving and critical thinking, all of which are found to improve when instructors incorporate engaged learning pedagogies such as learning communities or community-based learning into their courses (Swaner, 2012). We are in the midst of changing models of structure and delivery at the post-secondary level of education with flipped classroom models, hybrid and online courses, and MOOCs, among other changes (Yuan & Powell, 2013).

There is an active field of research examining the relationship between technology and pedagogy at the postsecondary level of education, for example: research examining the role of digital technologies in learning (Gabriel, Campbell, Wiebe, MacDonald & McAuley, 2012); research examining the effects of technology use on student achievement and attitude outcomes (McCabe & Meuter, 2011; Schmid et al., 2014); research on effective online instruction (Crawford-Ferre & West, 2012); research on faculty technology use and attitudes (Straumsheim, Jaschik & Lederman, 2015); research examining faculty adaptations to technology for teaching and learning (Kukulaska-Hulme, 2012); and research examining Learning Management Systems (Wood, 2010).

Like many other aspects of our lives, technology is impacting the way we teach and the way students learn. Also like many other aspects of our lives, the technology sometimes gets ahead of us. The technological tool is available, therefore we use it. Sometimes we want to use it, sometimes we feel we *should* use it, responding to pressure from students, colleagues or institutional administrators. The adoption of technology is often done without fully taking time to analyze why we are using it, what is accomplished through its use and what the consequences may be. Ideally instructors engage in critical reflection about what technology we are using and why and that technology should facilitate learning, encourage student engagement and higher order learning outcomes (Loughran, 2002).

The purpose of this study is to gather information on technology choices in Family Science courses and to explore what is driving the way Family Science instructors are choosing to integrate technology in their courses. What sets our study apart is our focus on the use of technology in Family Science classrooms. We need to be cognisant that we are using the most appropriate teaching methods and tools to meet the needs of our students who will be working with people in various capacities after graduation. Our study is designed to be exploratory, to be a starting point to further discussion, reflection, and research.

We frame our discussion of the use of technology in Family Science courses in relation to student engagement and higher order learning outcomes, according to Bloom's Taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956), revised later by Anderson and Krathwohl (2000). In the fifteen years since this revision, there has been an explosion of technology and social media tools. There are now MOOCS (*Ed Note: see MOOCS article in this issue*), open-source learning platforms and learning management systems, such as Moodle and Blackboard Collaborate, and a multitude of tools to foster collaboration and collaborative writing (i.e. wikis, blogs, Google Docs). Another revision of Bloom's taxonomy, Bloom's Digital Taxonomy (Churches, 2007; 2008), takes technological changes, and the associated new behaviours and actions into account. This revision of Bloom's taxonomy may prove to be helpful as we reflect upon and navigate these new pedagogical tools that are available to us. Our reflections and discussions of the macro changes described above, and the consequent shifts in technology use in classrooms are what prompted us to embark on this study. The following contains the reflections of the first author.

I began teaching full-time in the Family Science program in September 2014. Prior to that, I had taught on a sessional basis for seven years in the Faculty of Education. Although I had dabbled with some technology in my teaching prior to my full-time assignment, it was really not until I began in Family Science that I learned how to use a Learning Management System (Moodle), and other technology teaching tools. Teaching a fully online course was on my roster of new courses, so there was no choice except to get up to speed quickly. There was a significant learning curve involved, one that is not over!

In 2014-15, I taught 5 different courses that varied in size, content and level. I found myself reflecting on the many new tools I was using in my teaching, what these tools were enabling me to do differently and what students were doing differently. For example, in my large (95 students) face-to-face first year course, I found great value in having lecture notes posted on Moodle. I communicated often through the group forum, I gave quizzes and assignments through Moodle and posted many links to enrich the content for those students who wanted to go beyond the textbook material. On the other hand, I taught a much smaller (22 students) face-to-face third year family law and social policy course. In this course, I found myself often bothered by my perception of the student's reliance on having the detailed lecture notes that were posted on Moodle. I had a persistent nagging perception that the students were missing a critical step in the learning process working with difficult material – that of active listening and note taking.

My online class had 35 students and the most prominent observation was the different instructor-student interaction that was both allowed and negated in this format. I felt that something was gained in hearing from all students consistently, and more personally at times.

Something was also lost, or different enough that I am not yet comfortable with it, and that is what my presence should be and the form it should take. By ‘should’, I mean best.

I continue to search for best teaching practices to facilitate best learning practices in a seemingly ever-changing terrain. Because of my experiences, it is an opportune time for me to engage with others with experience teaching Family Science courses and in utilizing various teaching technologies to further explore motivations for the use of technology in our discipline.

Methods

All of the members of the Family Science Association (FSA) and members of the Advancing Family Science Section of the National Council on Family Relations (NCFR) were invited to participate in this study via an emailed invitation from the FSA and through the NCFR section listserv. Membership in the FSA primarily consists of faculty members from higher education institutions throughout North America who teach in family-related programs. NCFR’s Advancing Family Science section expands, strengthens, and enhances family science as a scholarship discipline. Information received from the chair for the Advancing Family Science section was that the membership for this section’s listserv is between 600 and 700 in December 2015. The email list for the Family Science Association was 45 members. This list included the 32 individuals who attended the 2015 Teaching Family Science Conference and participated in the initial discussion which generated many of the ideas for pursuing this research. Potential participants were sent a link to the online survey which provided more detailed information about the study and the consent process. Those wishing to participate were invited to review this information before proceeding to complete the survey. Prior to circulating the invitation to participate, ethical approval was obtained from the Research Ethics Boards at the University of Prince Edward Island and at Dalhousie University.

Twenty-seven Family Science instructors completed the online survey. Names and other identifying information were not collected. The online survey consisted of 13 open and closed-ended questions related to four areas of focus (1) demographics, (2) courses taught, typical enrolments, various teaching formats utilized (face-to-face, blended, online) and technologies utilized, (3) level of knowledge, skill, and experience with teaching-related technologies (1=low, 10=high), and (4) factors influencing decisions regarding the use of technology in their teaching activities. The survey took approximately 30 minutes to complete.

Data was analyzed using SPSS and NVivo. We used descriptive statistics to examine the 105 individual courses taught by the participants by level of course, size of class, forms of technology used in their teaching and their motivations for using technology in teaching Family Science courses. As many courses were third or fourth year, these courses were combined into one category labelled “upper level undergraduate courses.” The same was done by combining Master’s and PhD courses into one “graduate” category.

To analyse the open-ended responses from the instructors, we used thematic analysis which is a form of pattern recognition allowing for themes to emerge directly using inductive coding (Fereday & Muir-Cochrane, 2006). Thematic analysis is particularly useful in understanding influences and motivations related to how people respond to events (Luborsky,

1994). Thus, thematic analysis lent itself well to exploring the experiences of instructors in using technology in their teaching and influences on their use of technology. The data coding process involved generating initial codes, searching for themes, reviewing themes, and defining and naming themes that resulted in thematic codes that represented patterned responses within the data set (Braun & Clarke, 2006). We focused in particular on identifying themes about why Family Science instructors use technology in their teaching. All authors met to finalize the coding system. Then, all open-ended responses were read and coded independently by two of the authors who then compared and agreed on the codes used.

Results

Description of the Sample

The 27 people who completed the survey had a mean of almost 13 years of teaching experience in higher education (range=1-30, SD=9.5). Only 4 men completed the survey (15%). The participants taught a mean of almost 4 courses per year (range=1-7). The courses ranged in size from 5-200 students (mean=33.1, SD=24.6) that spanned first year to graduate level course (see Table 1). Almost 60% of the courses were taught face-to-face. Most fully on-line courses were offered in third year or beyond, while hybrid courses were dispersed across level of education. Asking participants to self-rate their level of knowledge, skill, and experience with teaching-related technologies resulted in a mean of 6.9/10 (range=4-9, SD=1.3).

Table 1

Level of class by format of class

Level	Course Format									
	Face-to-face		On-line		Hybrid		Other		Totals	
	n	%	n	%	n	%	n	%	n	%
First year	7	11.3	1	4.0	5	33.3	-	-	13	12.4
Second year	5	8.1	3	12.0	1	6.7	-	-	9	8.6
Third or Fourth year	37	59.7	13	52.0	3	20.0	3	100	56	53.3
Graduate	8	12.9	7	28.0	3	20.0	-	-	18	17.1
Not specified	5	8.1	1	4.0	3	20.0	-	-	9	8.6
Totals	62	100	25	100	15	100	3	100	105	100

Technology Used in Teaching

All participants used a learning management system (LMS) for various purposes including posting course information and content, class announcements, delivering video lectures, providing details about course assignments, polling students (i.e. interests or sign-up for group work), submission of assignments, testing, grading of assignments and tests, grade management, student feedback, chatrooms, e-mail, discussion forums and chat rooms, sharing of student work, contributing to collaborative documents (i.e. Wikis).

In addition to a LMS, many participants used YouTube (see Table 2). Other forms of technology were used less frequently, such as Facebook, but several indicated other forms of technology used that we did not include on our survey. These included including Padlet, Qualtrics, VoiceThread, downloaded video content, and reminder apps. Others used various forms of student response systems (i.e. clickers), such as Poll Everywhere. Several used a form of video conferencing, such as Zoom, WebEx, and Screenflow.

Table 2

Forms of technology used in teaching

Technology	N	%
YouTube	18	66.7
Facebook	5	18.5
Skype	3	11.1
Twitter	3	11.1
Instagram	1	3.7
Other	8	29.6

Institutional Technology Support

Most respondents reported institutional support for both students and faculty such as: instructor training and courses/workshops, help desk support, technology support hotline, introduction to new technologies and resources, online tutorials, access to instructional designers/instructional design center, distance learning center, faculty technology center, money and course release for instructors to develop online courses. There were many enthusiastic responses about institutional support such as:

The University offers continual training for distance learning, financial reimbursement to create a new online course (but with the course consequently becoming university property), efficient tech help at the College-level as well as support from outside the university (#22).

There are lots of efforts in our part of the University to support faculty to use technology in the classroom. We have fabulous Instructional Designers who help with digital education and innovation, they provide free training for instructors and available to consult as instructors try new technology. We have online tutorials and help for both faculty and students (#14).

Included in the responses to our question about institutional support were some indications of feeling not supported enough, for both instructors and students: “Some students don’t want to learn a new technology. Or, if a particular technology is required for an assignment, then it seems my role changes from instructor to technology help desk” (#18). This lack of support increased faculty time in supporting the technology needs of their students.

We have a tech support hotline with insufficient hours, some limited technology training for faculty ... it's not really supported so much as expected and we've had multiple cases where faculty have been told to use a technology, have spent countless hours learning it and integrating it into their courses, and the technology is taken away (switch to a different vendor, discontinued, etc.) (#27)

The theme of learning new technology, and the time this takes, was mentioned frequently. These 'learning curve' comments indicate that institutional support is necessary. "There can be a steep learning curve and getting it launched is time consuming, you have to plan ahead (#14)." Another participant indicated that: It's challenging to stay on top of things as new trends and software are always emerging (#41)." This was also mentioned as a challenge for students: "I hate it when technology (and the lack of understanding of how to use it) interferes with a student's learning in the course (#28)."

Why Family Science Instructors use Technology in Teaching

Quantitative results of motivations for using various forms of technology varied greatly with student need and convenience for both instructors and students being identified as the most frequent factors identified (see Table 3). Convenience and ease, for the instructor, factored in as dominant reasons influencing uptake of technology, particularly Learning Management Systems. One respondent said it is "convenient, keeps materials in one place, easily accessible (#9)." Another stated that "the learning management system helps me to be more organized with assignments, readings, grades, etc. (#13)." Similarly, another said "I can get everything ready ahead of time; more flexible delivery method (#23)."

Table 3

Motivations for using technology in teaching

Factor	N	%
Student need	14	51.9
Convenience	14	51.9
Pedagogy	12	44.4
Couse content	11	40.7
Pressure from my institution	4	14.8
Career advancement	2	7.4
Other	3	11.1

The theme of a 'central hub' emerged strongly in participant responses. A central hub provides a central place for access to course materials, grades and feedback, enrichment materials and communication. One respondent specifically commented on submissions and grading saying "online submission and grading make my job easier and faster. I don't have to take the time during class to return papers etc. (#9)." The idea that time is used more efficiently is captured in the following responses: "I can get more done during a semester with my courses because I can engage with students outside of the classroom. It is a central hub for managing the courses I teach each semester (#12)."

The technology is very helpful in gathering and organizing data. For example, I can have the class answer a few questions in preparation for lecture and incorporate their answers into the lecture. Using an LMS is very helpful. I do not have to copy off the syllabus or any handouts (although I still do for some of them). The students have all course materials accessible at all times (even if they miss class). #30

Beyond convenience of course delivery and management of course content, there were comments about the flexibility that is enabled by technology. Here the idea of flexibility in terms of where a course can be delivered is captured by a respondent who says, “I also love the convenience, particularly in winter months, as I don't have to go out at night to teach! (#41).” Continuing on this theme and discussing the merits of the flexibility that technology allows in dealing with interruptions, this respondent says, “use of different technologies opens up additional opportunities. Provides another way to deliver courses content when unforeseen issues such as illness or inclement weather mess up the schedule (#44).”

In addition to the flexibility of *where* a course may be taught or learned is *when* a course may be taught or learned. Depending on the structure of a course, many technologies allow for flexibility in access – geographic and temporal. As one instructor commented, “students are able to engage with the course content 24/7 (#12).” Another respondent says, it “allows me a lot of flexibility in my schedule, while keeping me connected to students (#13).” This respondent acknowledged the importance of flexibility and access for students “Improved access to courses, especially for part-time students who are also working (#44).”

In their comments, several instructors wrote that using technology helps them to meet the diverse needs of their students. For example, “my ability as an instructor to custom-tailor the learning experience every day to where they are at because I can get real-time information on where they are at in vivo (#27).” Other respondents said: “multiple formats allow for creativity and addressing different learning styles (#31).” “It allows students with different learning strategies to engage in the class material (#13).”

Several respondents wrote about how technology helps to promote active learning and helps them meet the learning styles and preferences of more students than if technology was not used. An example of the type of comment along this theme is as follows:

More frequent assessment, more formative assessments, quicker feedback on closed-ended assessments, and my ability as an instructor to custom-tailor the learning experience every day to where they are at because I can get real-time information on where they are at in vivo (#27).

An interesting theme emerged from respondents who commented on how technology facilitates different ways and times of student response. For example: “Students like it. They can participate from home. It can off the pressure to respond in the moment in the classroom. They can think about their answers (#14).” Another respondent commented on the change of who can be heard in a given class, “I love reaching all students and having all students have a voice in the classroom as they can't hide in discussion boards, for example (#41).” In addition to who

responds and is heard, and how students respond and are heard, this respondent speaks to what might be said and how this may differ in a face-to-face classroom versus an online forum:

I love being able to ask very personal questions that makes the lecture "come alive" to the students. They see answers from other students in their midst with the comfort of being anonymous. The lectures are much more compelling when this is incorporated (#30).

Pedagogy and course content were frequently selected as specific reasons for implementing technology. "Overall, technology enhances my teaching when it is applied in moderation and never taking the place of good teaching (#30)." Interestingly, this respondent focused on technology facilitating group work, "Surprisingly, group work is an advantage. My students have to work in teams and while team work is typically poo-pooed, it really works with technology based assignments. They also learn critical 21st century skills (#21)." Similarly this respondent described capitalizing on students' comfort and interest with technology as a facilitator of learning and developing critical skills: "Students also love technology, particularly our younger generations, so it keeps them engaged and learning, plus I use creative assignments to help them develop cutting edge skills (#41)."

The importance of the concept of ownership in facilitating student learning is captured here,

It seems to put the ownership of learning more in their hands since they have ready access to readings, can submit assignments online (even when they don't make it to class), can print out the PowerPoint slides ahead of time to take notes on them, etc. (#22).

Several respondents commented on how technology can facilitate a "flipped classroom." In the flipped classroom model, what is normally done in class and what is normally done by the student on their own is switched, or flipped: "I use a semi-flipped format, so students engage in some online activities outside of class and do more engaged work and discussion in class (#12)." The use of technology facilitated allowing more time for focusing on student needs during class time. "It allows me to spend more time in class in face-to-face classes focusing on student needs and really engaging with them rather than giving quizzes and lecturing (#12)." This use of technology was viewed as adding additional value to courses. "I believe they get more from the course, especially in a hybrid course because I use our F2F time for discussion and going deeper into material because I'm able to put more basic information and lectures online (#28)."

Discussion

The purpose of this study was to gather information on technology choices in Family Science courses and to explore what is driving the way Family Science instructors are choosing to integrate digital technology in their courses. Universities have widely adopted Learning Management Systems (Wood, 2010), which is reflected in the result that all our participants used one of many Learning Management Systems.

Many of our respondents stated that their institution *required* them to post their syllabus and grades, thus the adoption of technology is a necessity, at least at a minimal level. What we don't know, certainly from our small study, is what is driving the administration at the institutional level to be making choices around technology use. So, as we consider choices that Family Science instructors are making, we need to recognize a degree of 'trickle down' effect, resulting from the use of technology being mandated.

Although it wasn't explicitly stated, we can implicitly assume that instructors are being influenced by the broader macro forces that are affecting every other facet of society today. Family Science instructors cannot be immune to these overarching macro forces, whether it is explicitly recognized or not, and these forces do come to play in our classrooms. Socio-economic and political shifts toward globalized neoliberalism have brought about shifts in the types of jobs available in particular geographic regions and the corresponding skills that are required for those jobs (Clement & Vosko, 2003). Neoliberalism as an encompassing mode of governance has shifted expected ways of governing each other and ourselves and emphasizes individualism and entrepreneurial skills and mindset (Kandiko, 2010). Together, globalization and neoliberalism influence new direction and models for post-secondary institutions and generally influence educational discourse (Margison & Considine, 2000).

Our results indicated that the use of various technologies allows for changes in the structure of Family Science courses. There is the option of online courses which may be synchronous or asynchronous; there are hybrid courses, blending face-to-face classes and online components, and even most face-to-face classes use a Learning Management System that shifts the structure of a traditional face-to-face class somewhat. As this shift continues, it will be interesting to see how instructors and student adapt technology to serve various purposes. As a number of respondents in this study remarked on how technology supported student engagement, continued research will be needed to explore digital adaptations of current engaged learning pedagogies (Swaner, 2012) and other high-impact practices for teaching and learning (Kuh, 2008).

Themes of flexibility and access were dominant in the responses to our survey. Many respondents cited access to course materials "24/7" as an advantage to students. This notion of access extended beyond time and into geography and student demographics. The idea that an online course was available to anyone, anywhere, anytime was captured in many responses. Technology facilitated dealing with student or instructor illness, or inclement weather. Our own particular discussions from this study should be situated within the larger educational discussion of shifting course structure, including online course delivery and broad discussions about the shifting role of post-secondary institutions in a globalized economy, the role of free MOOC courses, and implications for higher education (Yuan & Powell, 2013).

Decisions made by respondents to our study about whether to incorporate technology in their classrooms, were largely driven by the desire to improve student learning. The concept of the 'flipped classroom' emerged as a dominant theme and one that instructor's generally feel is better pedagogy for students, facilitating more effective student learning. In the flipped classroom model, what is normally done in class and what is normally done by the student on their own is switched, or flipped. A guiding principle of the flipped classroom is that work

typically done as homework is better undertaken in class with the guidance of the instructor (Herreid & Schiller, 2013). Once again, the theme of flexibility arises here as technology is allowing for the flexibility in content delivery.

The concept of the ‘central hub’ was a recurring theme in our study. There were many comments about technology enabling enrichment of course material and classroom activity through the ability to add additional sources to a central and accessible site, such as additional reading material, links to audio or video, websites, and other resources. In addition to the idea of enrichment and variety, there were many comments about these features of technology in aiding student interest and engagement. Maintaining student interest and engagement is paramount to enabling effective learning. Understanding who our students are at any given time is always important, but perhaps even more so now as different demographics have different experiences with technology in school, work and daily life. We must situate these discussions within broader discussions of demographics such as the characteristics and needs of the 21st Century Learner (Beetham & Sharpe, 2013), understanding what is meant by terms such as Digital Natives (Tapscott, 1998) and engaged learning pedagogies (Swaner, 2014). Continued critical reflection, perhaps with a framework such as Bloom’s Digital Taxonomy (Churches, 2007), is necessary to gauge student engagement and higher order learning outcomes.

The instructors in our study discussed how the use of a Learning Management System supported greater interaction and communication between the instructor and students and between students. The concept of ‘voice’ emerged as an important and interesting theme. By ‘voice’ we are thinking in terms of both interaction and communication, included in this is what might be thought of as personality or learning style. In terms of course structure, the way we hear from students differs in a face-to-face, online and hybrid courses. The timing of response differs, as does the nature of the response. Who is ‘listening’ differs with the different structures. What is shared might differ depending on the structure. Some respondents indicated that more personal sharing is facilitated by technology allowing for online discussion. This is very interesting to think about in terms of what becomes new and different, perhaps better, with the introduction of technologies that facilitate these changes. For example the use of online discussion forums allows for *all* students’ voices to be heard. Very often in traditional face-to-face classes we do not hear from all students. There are several reasons for this; it may be personality, it may be class dynamics, it may be learning style in that the timing of ‘on-the-spot’ response, doesn’t work. On the other side of this concept of voice is the notion that something is being lost in the absence of face-to-face interaction. This emerged as the site of most ambivalence in our study and suggested a cautious tone for moving ahead too quickly without critical reflection on how these changes are affecting interaction and communication among other pedagogical factors.

All of these ideas led to some very interesting discussion among the authors of this article about whether this ambivalence signals that we are trying to hold on to traditional modes of interaction (face-to-face) and to create characteristics of this model of interaction in an online forum. Once again, this discussion can, and should, be extended beyond our small discussion to incorporate larger discussions happening in other disciplines around the role of the instructor, teaching methods, effective learning, course structure and class size.

Limitations of Study

One limitation of our study is our relatively small sample. We limited the participants to those who teach Family Science courses to gain greater insights into the use of technology in our discipline in particular. We did hope for a larger response, but we later realized the timing of the distribution of our survey corresponded with another on-line survey on scholarship in Family Science distributed through NCFR. It would be useful to conduct a larger study to obtain generalizable quantitative data and qualitative data reflecting more diverse perspectives.

We expect that respondents may be more favorable to incorporating of technology in their teaching than typical Family Science instructors, and we reiterate caution in the generalization of our results. In this study, we only collected data from instructors. It would also be very valuable to collect data from Family Science students to learn from them directly about their perspectives on the value and effectiveness of the technologies used. In particular, it would be useful to study whether these technologies save time for students, and whether technology provides students with more control over their own learning and whether students feel/believe that their learning in Family Science classes is deep and rich, in all course delivery formats (and if not, how we might address these gaps).

It would also be interesting to know whether Family Science students are also perceiving that something is being lost along the way with regard to interpersonal communications in the adoption of some of these particular technologies. There is certainly the possibility of strong generational associations and disconnects regarding what we may consider to be ideal teaching and learning situations for students and instructors from those held by students. Technological support is integral to the experiences of faculty and students; it would be beneficial to collect data from those who provide instructional design, hardware, and software support. Institutional support emerged as a key motivator to utilizing technology in Family Science classrooms, and it would be useful to gain more understanding from university administrators about their goals for supporting technology in teaching and how they communicate these goals to faculty.

Conclusion

In this study, we gained some insights into why Family Science instructors incorporate technology in their teaching. Our findings indicate that there is some pressure by institutions to use technology in teaching. While institutions often provide supports for faculty and students to accomplish this, additional support is often needed. Our findings indicate there are many motivations for incorporating technology in teaching, and these should be explored further

However, it is promising that the respondents in this study used technology in many ways to enhance their students learning experience and to accommodate the needs of today's students.

We expect that there will be more pressure from academic institutions in the future to encourage the use of technology for economic reasons, and thus, it is imperative for Family Science and other disciplines to engage in additional research and reflection about why we use various technology tools in our teaching and the impacts our decisions have on student learning and other transferrable outcomes.

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