

President's Message

Just Breathe

My son sent me a YouTube video, *Inside the Superhuman World of the Iceman* (2015), and texted me the next day to ask if I had watched it, "Watch it you bum." So I took my phone to the basement and watched the video as I tidied the workbench and prepared for the next home repair project. I scrutinized it with the typical cynicism of an academican father watching a hyperbolic YouTube video sent by a teenage son. But I had to admit that the video hooked me for a number of reasons.

Wim Hof, the focus of the video, has performed some amazing feats mainly through practicing a breathing technique that influences his autonomic nervous system. He has submerged himself in ice for almost 2 hours, climbed Mount Everest- in his shorts, run a marathon with no water- in a desert. I could see why my son was so captivated. More importantly Hof has trained others to perform similar feats and has subjected himself to laboratory testing. He desires scientific, empirical evidence to support his contention that these techniques can help people to live more fulfilling lives and overcome health issues. And he is being proven correct.

I sent my son a return text, a link to an article in Scientific American, *Proper Breathing Brings Better Health* (2019), "Read it you bum." The article covers much of the same information as in the YouTube video, but there is no charismatic superhuman protagonist to convey the message. We talked at dinner about the techniques that Hof uses, how his methods have been substantiated and the historical context for what Hof teaches his followers. My son was thrilled that I watched it and valued something of interest to him. I was thrilled he was interested in the science, the connection with meditation as well as ancient teachings. We talked about ways we could both use these methods in our own lives. He even seemed to listen as I compared the content of the video to a Malcolm Gladwell story, but maybe I was just being optimistic.

I realized that our interaction was a microcosm of what we attempt to do with our students, and as faculty developers, with our faculty. The video provided an exciting entry point into a complex, current topic with many potential avenues for discussion. The video itself, the content and subject of the 'lesson,' was supplied by the learner, so we truly co-constructed knowledge. I was able to connect my son

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with additional information, in a more standard, recognized, scholarly form that we discussed and then eagerly applied to our own lives. What a great class. What a great workshop. So how do I recreate it with my students and faculty?

This is where I would love to involve you in discussion, because I know that what I see in the above story could be very different from what you see. We could both be right, both be wrong or both be understanding only part of makes great teaching work. So let me point you to a new resource that NEFDC is starting to help all of us explore teaching in a rigorous way and share our results with others- the NEFDC SOTL Grants. <https://nefdc.org/resources/sotl-grants/> These grants are awarded to faculty in member institutions who would like to explore what works in their teaching- and explain it to others.

So what was the most important lesson I learned from watching the video? Was it that I am capable of superhuman feats? That I need to let my faculty bring topics of interest and content to workshops? That I need to start with personal stories and practice culturally sensitive pedagogy? All good. But what I really took to heart is that the most important lesson I convey may have nothing to do with my course/workshop content. It could be, when I take myself away from the learning objectives, from constructing detailed paths to carefully scaffold the learning, when I pull away from assessment methods and stop worrying about proving ROI, when I remember the time of the semester and all the things we, our faculty and our students are dealing with, that I show everyone how to stop and breathe. Really breathe. I take out a mindfulness technique (Barbezat & Bush, 2014), slow the workshop down, slow the class down, slow my mind down and help my participants do the same. It turns out that focused breathing can help you do amazing things. That may be the most important advice anyone receives from one of my classes.

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ANNOUNCING: NEW NEFDC SOTL GRANTS

The New England Faculty Development Consortium (NEFDC) will be awarding up to 5 Scholarship of Teaching and Learning (SoTL) grants for the 2019-2020 Academic Year to extend our commitment to supporting excellence in teaching and learning.

Each award comes with a maximum stipend of up to \$2,000.

Applicants must be affiliated with a member institution of the
New England Faculty Development Consortium.

For information about due dates and criteria, please visit our website
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Social And Emotional Learning, The Key To College Success

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Today's professors do more than teach students a subject. We create an academic experience to educate not only to the subject matter, but to the whole person, so that students can be successful throughout their lives. As faculty, we are responsible to find connections that create effective learning environments. The classroom setting should include an awareness of social emotional learning as a critical element for effective student experience. The impact of this enriched learning experience helps foster academic leadership and career guidance. Attention to social emotional learning creates feelings of support and encouragement which can improve behavior and attitudes towards life and increase academic achievement.

Recent statistics on incoming freshman shows a great number of these students suffer from acute anxiety. Over the years this number has increased considerably. This may be one of the strongest issues amongst incoming freshman but there are many other concerns that professors could become aware of in order to teach successfully to the current student body.

As professors we can tell pretty quickly if a student has learning difficulties. We may try to search out the support systems at the institution to help these students but unless the student reveals an accessibility issue, we are left on our own to address how to best support the student. Professors want to understand why and/or how students learn best. A lot of research has been done at the lower levels of k-12 to understand what makes better learners, a topic that has gained more importance over the past few years is the idea of Social Emotional Learning and how this affects a student's ability to learn.

What is Social Emotional Learning? SEL has been defined in a variety of ways but, to quote the researchers, from a study done by the Harvard Graduate School of Education,

Broadly speaking, social and emotional learning (SEL) refers to the process through which individuals learn and apply a set of social, emotional, behavioral, and character skills required to succeed in schooling, the workplace, relationships, and citizenship. (12)

In this document the authors have categorized SEL skills, as well. These skills include three primary categories: cognitive regulation, emotional processes, and social/interpersonal skills. This document explains in depth ways to approach SEL and possible ways of using these approaches in the classroom. Here are the SEL skills defined;

In the most general sense, **cognitive regulation** can be thought of as the basic cognitive skills required to direct behavior toward the attainment of a goal. It is closely akin to the concept of 16 executive function and encompasses a set of skills that enable children to prioritize and sequence behavior, inhibit dominant or familiar responses in favor of a more appropriate one, maintain task relevant information in mind, resist distractions, switch between task goals, use information to make decisions, and create abstract rules and handle novel situations. Children use cognitive regulation skills whenever faced with tasks that require concentration, planning, problem solving, coordination, conscious choices among alternatives, or overriding a strong internal or external desire – all key skills for behavioral and academic success.

Emotional processes are a set of skills and understandings that help children recognize, express, and regulate their emotions, as well as engage in perspective-taking around the emotions of others. Children must deploy these skills whenever faced with tasks that require emotional, behavioral, and interpersonal regulation. Emotional skills allow children to recognize how different situations make them feel and to address those feelings in prosocial ways. Consequently, they are often fundamental to positive social interactions and critical to building relationships with peers and adults; without the ability to recognize and regulate one's emotions or engage in empathy and perspective-taking, it becomes very difficult to interact positively with others.

Social/Interpersonal Skills support children and youth to accurately interpret other people's behavior, effectively navigate social situations, and interact positively with peers and adults. Social and interpersonal skills build on emotional knowledge and processes; children must learn to recognize, express, and regulate their emotions before they can be expected to interact with others who are engaged in the same set of processes. Children must be able to use these social/interpersonal processes effectively in order to work collaboratively, solve social problems, and coexist peacefully with others. (15, 16)

Think of your own education, were you hindered by powerful emotions? Were you concerned with your belonging to or separation from the peers around you? What are the social pressures surrounding learning? We need to consider current students who might be socially marginalized, students of color, LGBTQ+ students, international students, students from low income families or undocumented students. There may be students who are away from home for the first time and are feeling abandoned, are emotionally detached from their families, depressed or have a drug or alcohol dependency. Today's students feel more burdened and stressed than ever. The reality of educational debt is extremely high and produces anxiety for the students and their parents. They may have questions about the ability to pay off their loans when they graduate. It may be these and other unknown forces that are influencing their ability to cope with the educational environment, but we should try to understand the status of the current learning culture. We need to look at ways to reach the differences in all of us, to be aware of different ways of learning and how social and emotional health is related to learning.

Students experience many complex emotions at the start of college and these emotions need to be addressed to help the students evolve and be successful in their learning. Our main focus as professors is to teach, we are not psychologists or therapists, but we can advise or support our students in many ways by listening to them and steering them in the right direction on campus to the offices of academic, or emotional support. As professors we have been conditioned not to think of these types of issues as being part of learning. Teaching subject knowledge is not enough to prepare our students to be successful in life, we need to be aware of the emotional and social forces that can undermine the successful experience of learning for our students.

If we are aware of social emotional learning, then we could foster a positive experience for the students. Researchers have found when a student feels comfortable and included, their learning potential grows exponentially. Theories on learning continue to evolve the teaching landscape and we must be open to change ourselves. Students can learn best with an attitude of inclusivity. How we establish this, is our challenge. As faculty we may already include social and emotional learning in our teaching but are not totally conscious of the effects it has on classroom interactions. Combining the knowledge of SEL and the awareness of our own interactions and experience in the classroom together could give us the freedom to engage with our students with more ease.

As professors we hold a great deal of power. Many students are hesitant to talk to a professor for fear of being judged. Faculty need to be mindful of this. How a course is structured can help with stress or lead to high stress for students. That must be understood and there should be continual communication between the students and the faculty. Accountability to the students and their progress is essential for healthy social emotional learning. With most of our teaching experience in a student-centered college we understand that the more information a student has about the course in the beginning adds to their confidence and understanding of what is expected. A well organized and detailed syllabus that includes a time-line of expected work along with areas of academic resource information creates a beginning support structure. The communication of the structure of the course needs to be continued throughout the semester with expectations clearly noted often.

We teach mainly studio classes which run at least three hours at a time. This classroom setting is basically an open structure with multiple learning experiences. Learning could take the form of introducing and working on projects, critiquing, singular or collaborative work with critical and creative problem solving along with presentations. Because of the high level of interaction in the studio we are aware of the role SEL plays in our classroom. Immediately, in this studio setting the social and interpersonal skills are the first things we notice, how students are relating to each other as they reference the work being done. These interpersonal relationships have already been established outside the classroom and are brought into the educational setting. We see that this generation supports each other immensely, they continue this social structure within the learning parameters. These classes are made up of groupings of students that are new to each other or a consistent blend of

the same students that may take many of their courses together. Whichever group it is, the students have learned in earlier life to think of the other with empathy. The students bring these relationship skills into the classroom, we as faculty can build on this positive direction and use these skills to help direct constructive conversations about the work being done. As well, this continues to build problem solving skills with group collaboration, mirroring the working world. Because of our awareness of the social emotional interactions we know that we must build a framework for their discussions, processes, and work time. Although, this has not been a topic in college teaching in the past, it now needs to be used to help us interact with our students better and so that we might have greater success in understanding of how they are learning. Students and professors must continually practice effective social and interpersonal interactions to co-exist constructively and enhance the learning experience so that we better prepare our students for the complex world after graduation.

Key Concepts to consider when thinking about Social Emotional Learning is becoming aware of what SEL is, and how it can affect the way students interact. Ways of looking at the use of SEL in the college classroom can be consistent and aligned with the pedagogy of the particular course. We also must consider the needs of the individual students as well as the group. Once these key concepts are considered we could establish the opportunities for skill building within projects and as-

signments. Possible projects and assignments could include conversations on focused reading, directed writing assignments or art and design projects that focus on the topics of social and emotional learning. We could be more outspoken about social and emotional learning by including it as part of discussions, projects and assessment. This would greatly humanize the learning experience and our own self-knowledge of the social learning experience. It is interesting that we do not acknowledge the social construct of the classroom. By doing so, we may be able to teach better. Each class is made up of a population of the chance meeting of a cohort of students and the faculty member. The way this group interacts has an impact on how we all help each other become responsible social beings.

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SAVE THE DATE

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**Paul Handstedt, Director of Pedagogical Innovation
at Roanoke College & Author of
*Creating Wicked Students: Designing Courses
for a Complex World*.**

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The Architecture of "Wickedness:" Constructing Students Who Can Change the World

What do we think of our students? How capable are they? How hardworking? How smart? How do our assumptions about our students enable or inhibit their potential? Whether you are teaching or supporting teaching, this keynote workshop will explore these questions as we consider pedagogical approaches that convey to students a powerful sense of their capabilities.

Paul Hanstedt is the John P. Fishwick Professor of English at Roanoke College and Director of The Roanoke College Teaching Collaborative. He is the recipient of several teaching awards, including a 2013 State Council for Higher Education in Virginia Outstanding Faculty Award and the 2014 CASE-Carnegie Virginia Professor of the Year Award. He has authored several books, including GENERAL EDUCATION ESSENTIALS and CREATING WICKED STUDENTS.

3-C's For Technology Integration: Coordination, Collaboration, And Co-Construction

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Introduction

Effective instructional design, course organization, and teacher facilitation strongly influence learning outcomes and learning community development (Akyol, Vaughan, & Garrison, 2011). Learning technologies represent opportunities to foster powerful connections between learners and content, learners and instructors, and learners themselves, but only if decisions around technology-based instructional strategies and tools are based on sound instructional design, promote interactivity and collaboration, facilitate the delivery and processing of new content and ideas, and support the articulated course learning objectives (Anderson, 2008; Huang, 2002). When interactive tools are afterthoughts, they lack pedagogical value and do not add to knowledge development or student satisfaction. Learners and their learning process must be the focus of instructional design and delivery, not the tools used for presentation or curation (Anderson, 2008). In other words, technologies must be chosen based on the attributes they bring to specific learning contexts in terms of supporting deep processing of information and promoting learner engagement through personalization, interaction, and relevant learning feedback (Anderson, 2008; Huang, 2000). Whether a teacher selects a strategy or tool for the purpose of substitution or redefinition (Glover, Heppelstone, Parkin, Rodger, & Irwin), the choice must represent a purposeful decision to alter a task to address the needs of the students.

When purposely chosen, technology is a powerful instructional tool that can serve as an intellectual partner for both students and instructors, helping to support knowledge dissemination, collaborative learning, and process facilitation (Anderson, 2008; Huang, 2002; Ke, 2010). As society continues to move “away from a world in which some produce and many consume media, toward one in which everyone has a more active stake” (Jenkins, Clinton, Purushotma, Robinson, & Weigel, 2006, p. 10), adult learners expect technology to not just offer access to information, but instead the distribution of cognition and collective intelligence through transmedia navigation and meaningful interaction across learning communities (Huang, 2002; Jenkins et al., 2006). This means that as instructors in higher

education, we must think creatively and systematically about how to support students' effective engagement in an open-source culture by developing their ability to integrate, synthesize, and apply information coming from multiple sources and representing multiple perspectives (Cercone, 2008; Jenkins et al., 2006).

In our experience as online and face-to-face higher-ed instructors, we have found this expectation can be met by strategically choosing technologies that support *coordination*, *cooperation*, and knowledge *co-construction* (the 3 C's) within our classes. Coupled with skilled facilitation, we have found a variety of free technologies available to help build learning communities and foster the skills needed to support independent investigation and the flow of ideas across communities (Jenkins et al., 2006; Lambert & Fisher, 2013).

Coordination

Coordination involves efficiently and effectively bringing entities, ideas, and resources together (Anderson, 2008; Denise, 1999). Using technology for coordination supports teaching and learning by ensuring individuals know what needs to be done, when it needs to be done, and where to access required resources and materials to accomplish the prescribed tasks. Effective coordination also provides learners with a clear sense of how individual tasks fit into the larger, coordinated whole (Denise, 1999). Technologies described in this section help facilitate efficient coordination by providing shared access to resources and materials and structured opportunities for student input and personal choice, thus increasing student independence and autonomy (Anderson, 2008; Gonzalez, 2018; Huang, 2002; Lambert & Fisher, 2013).

Google Sheets

Housed within Google Drive, Google Sheets (<https://www.google.com/sheets/about/>), provides a common space to build and oversee group assignments (see figure 1). Having everyone's work in one place helps avoid versioning confusion and work duplication, an issue that arises when documents are shared through email. Additionally, Google Sheets provides an

ideal space for students to sign-up for synchronous sessions, group projects, or office hour appointments as all students can have easy access to the sheet from any location. Although the shared document promotes coordination it can be difficult to monitor the work of individual group members. To help alleviate this issue, we recommend creating a separate worksheet for each group within the same workbook to allow for easier monitoring. Additionally, just as in all group work spaces, it is important to provide clear instructions and expectations for work within this shared space. For those of you using Microsoft's Office 365 at your institutions, Excel (<https://products.office.com/en-us/excel>) provides similar capabilities.

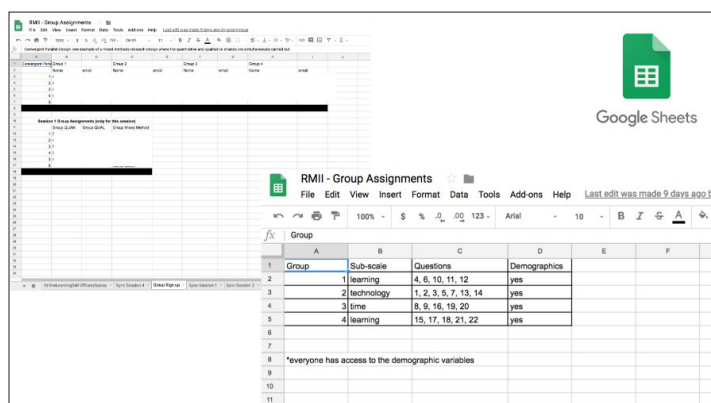


Figure 1. Google Sheets example from a research methods course. Students and the course instructor used this space to sign up for discussion groups (top left) and also to assign relevant survey questions for data analysis work (bottom right).

Padlet

Structured like a virtual bulletin board, Padlet (<https://padlet.com/>) provides open-source space to share ideas, resources, and other relevant materials that allows for more fluidity, flexibility, and community with respect to selection of content to support learning than typical LMS related spaces. Students and instructors can add pictures, notes, files, and links to online resources, as well as comment and respond to each other within the space. The blank “wall” can be structured in multiple ways to serve your instructional purpose. The example in figure 2 is organized in columns by topic, but Padlet walls can also be structured in a more flexible and free flowing manner to support emerging ideas and connections. Students will likely be adding resources and ideas independently, so monitoring for accuracy and appropriateness is necessary. Creating a framework with guiding topics and specific areas and expectations for posting will promote success. If you want to ensure student names are attached to posts you will need to require that stu-

dents create a free account, otherwise posts will appear anonymously. An important note is that free Padlet accounts limit you to three boards, meaning you may need to delete boards at the end of each semester.

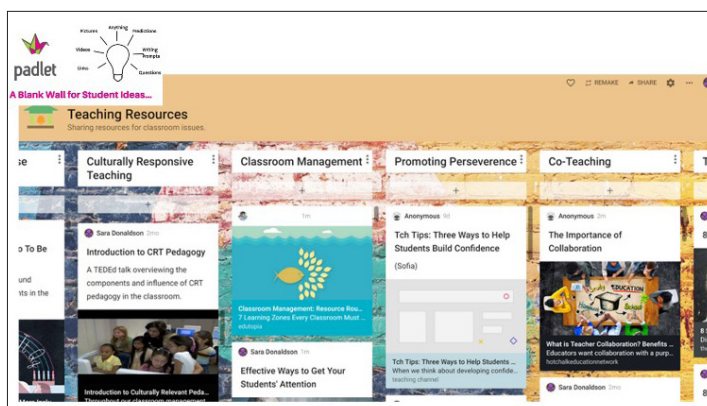


Figure 2. A Padlet from a student teaching seminar course where students and the instructor place a variety of resources to support classroom teaching and learning.

Lucid Charts

Coupled with Microsoft Sway and/or another resource landing page, Lucid charts (<https://www.lucidchart.com/>) provides a common area for sharing resources (see figure 3). Its structure reduces the need for students to search for tools and relevant course materials in multiple places. One drawback is that Lucid charts is updated frequently and will not work effectively if these updates are not made. Although the use of Lucid charts is efficient, students need to be “trained” to use it effectively. It is important to push students to go to this established area when questions arise. If you provide the resource in another way, they will be less likely to use the resource landing space in the future, negating its benefits.



Figure 3. This Lucid chart includes two examples of the tool's use.

The Data Analysis image is a flow chart created to help students develop their statistical methods decision making. The Videos image is an example showing the curation of relevant videos and other resources in one, easy to access, place for the students.

Collaboration

Collaboration goes beyond coordination as it requires bringing individuals with divergent perspectives and complimentary skills together to promote shared creation, problem solving, and new understanding (Denise, 1999). Leveraging technologies to support collaboration entails creating spaces where individuals can reflectively and collaboratively bring together their personal and shared worlds through social negotiation (Anderson, 2008; Huang, 2002; Ke, 2010). Therefore, chosen technologies must provide an interactive space where individuals can easily share existing knowledge and emerging ideas, as well as comment on and question the ideas and thinking of their peers (Huang, 2002; Jenkins et al., 2006). We have found the tools in Google Drive, or alternatively Microsoft's Office 365, to be particularly helpful for supporting collaboration, as described below.

Google Slides

Google slides (<https://www.google.com/slides/about/>), an online presentation platform similar to Microsoft's Powerpoint (<https://products.office.com/en-us/powerpoint>), provides a shared workspace for synchronous and asynchronous collaboration and knowledge development. Instructors can set up a slide template to support team work (see figure 4) to provide structure and then allow students to work on shared assignments either together in class or separately outside of class time as they will each be able to add individual ideas while being able to view peer contributions in real time. The ability to view the work of others provides real time feedback for individual students while also reinforcing and expanding the knowledge within and across groups. As an instructor, it also allows for easy monitoring of multiple groups simultaneously. As with any collaborative assignment, it is important to establish clear expectations for work allocation, peer feedback, and overall work expectations to promote a balance of individual and group accountability.

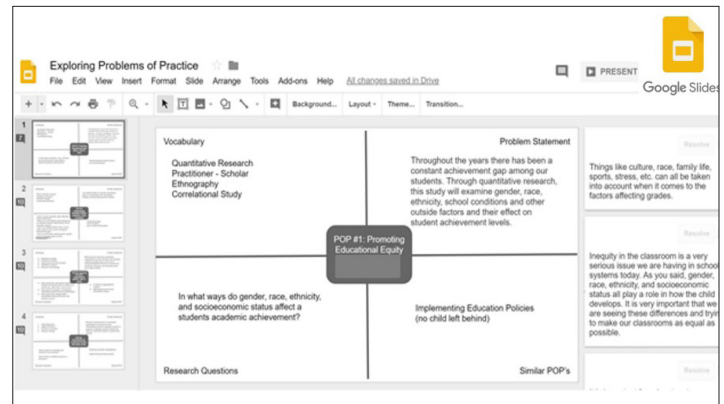


Figure 4. Google Slide example. This example from an introductory research course provided a template for each group to discuss initial thinking about different problems of practice.

Google Sheets

Google Sheets (<https://www.google.com/sheets/about/>), similar to Microsoft's Excel (<https://products.office.com/en-us/excel>), also provides a common space for individuals to share, react to, and talk through ideas and plans for shared assignments either synchronously or asynchronously. As with Google Slides, a worksheet template (see figure 5) can be set up for each group to provide structure or groups can use a blank worksheet to structure as they choose. Having the worksheets for all groups within one workbook makes it easy to monitor the work of multiple groups simultaneously, which supports instructors' ability to provide timely feedback and to address emerging content or group work issues as they arise. Moreover, with this tool, instructors can easily encourage groups to review other group's work and cultivate cross-group discussions about experiences and different outcomes. For example, instructors may consider using this kind of technology strategy to engage in the traditional jigsaw approach to an activity or assignment. Once again, taking the time to establish clear expectations and to talk through common issues before work begins will promote success.

STEM Project	Link	Team Member Names (2-4/group)	Student Population Description	Community Description	Project Description	Reference to Group Member's Contexts
Ford NGL STEAM Community Challenge - 2018 High School Winners (choose one project for your case study)	Ford NGL STEAM Com					
A Teacher Growing Green in the South Bronx (Stephen Ric's TED Talk)	Stephen Ric's TED Talk					
Charles R. Drew Charter School (3rd grade): Snowpocalypse	STEAM & Project Base					
Community-based Engineering (2nd grade): Outdoor Classroom Renovation	Community-based eng					
Samsung US: Solve for Tomorrow Challenge - 2018 Middle School Winners (choose one project for your case study)	Samsung Solve for To					

Figure 5. Google Sheet example from a STEM methods course. In this example students use the sheet to choose a case study and collaboratively share key information within and across each case.

Co-Construction

Learning is not an outcome, but instead an active, learner-centered process of knowledge construction that builds upon prior understandings (Anderson, 2008; Huang, 2002). Social learning theorists propose that learning contexts and media best promote higher-order learning outcomes when they support peer interaction and active integration through social negotiation and whole person engagement (Akyol & Garrison, 2011; Anderson, 2008; Fink, 2003; Ke, 2010). Choosing technologies to promote the co-construction of knowledge and shared understanding requires looking for tools that (a) facilitate social interaction around content, (b) present information in different ways, (c) promote integrative synthesis and application of new ideas to existing knowledge, and (d) create a climate of self-reflection and self-regulation (Anderson, 2008; Cercone, 2008; Huang, 2002; Lambert & Fisher, 2013). All of the tools mentioned earlier support co-construction of knowledge by promoting effective and efficient coordination and collaboration, but we have found the following tools to be particularly effective in helping to deepen student understanding and promote social learning.

Kami

Kami (<https://www.kamiapp.com/>) is a shared PDF annotation tool that allows instructors to model reading and note taking within articles and other resources. It also provides opportunities for students to present guiding questions to each other as they review documents and to point out key elements of text as they read. Students can work together either synchronously or asynchronously to resolve questions and issues, view peer and instructor comments and questions, and even answer compre-

hension questions depending upon your reading purpose. Figure 6 shows an example of students in an introductory research methods course collaboratively annotating a sample interview transcript to identify themes for qualitative analysis. Figure 7 shows an example of an instructor guided discussion around a research article as students work to make sense of a complex text. Although it is easy to upload any PDF document to Kami to share with students, it is important to keep copyright regulations in mind. Additionally, the number of comments and questions can get cumbersome, so it is helpful to have multiple copies of a text so students can work in small groups. Additionally, actively monitoring group work, including providing guiding questions and feedback will help ensure discussions stay focused and that misconceptions are addressed. Hypothes.is and Adobe Acrobat offer similar platforms with slightly different capabilities and accessibility.

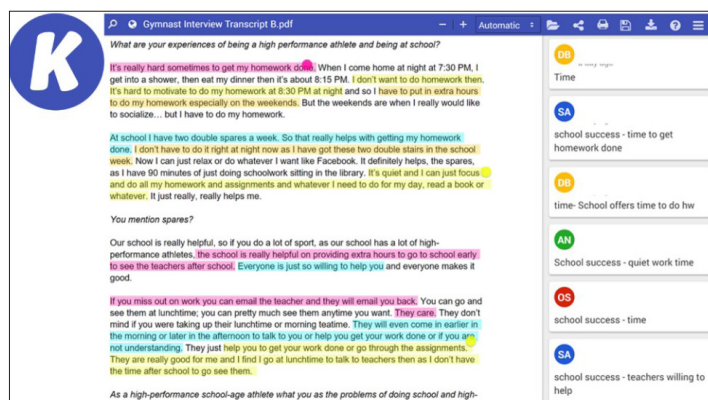


Figure 6. Kami as used in an undergraduate, introductory research methods class to support qualitative coding.

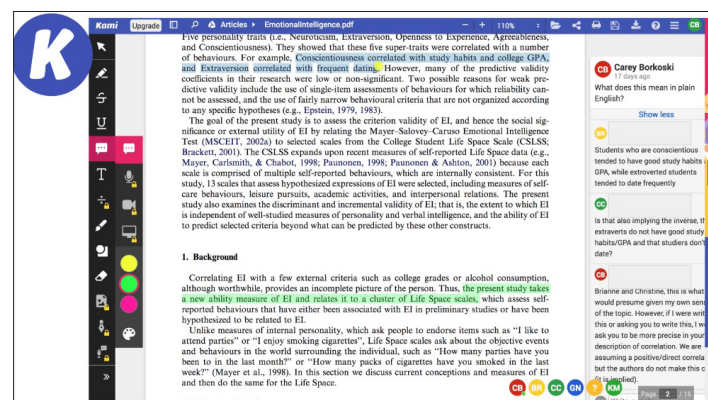


Figure 7. Kami example from a doctoral research methods course showing a guided discussion of article content.

Educreations

Educreations (<https://www.educreations.com/>) provides a platform for creating and sharing short instructional videos. Both instructors and students can create “white board” videos to model thinking and provide example-based learning (see figure 8). The platform also provides opportunities for collaboration and discussion among group members as they work through shared learning activities. A drawback to this technology is that it takes time to create the videos and limited editing capabilities lead to the need to remake videos when errors occur. Keeping the videos short and remembering that the videos, just like in-class instruction, do not need to be perfect helps with development time and contributes to a more authentic and effective output in terms of student learning and engagement. Like many of these technologies, you will need to create a free account to access the platform. Flipgrid (<https://flipgrid.com/>) also provides a platform for creating short videos. Unlike Educreations, Flipgrid is more appropriate for short video responses to prompts or reactions to experiences. Students are able to view peer’s videos and respond to each other. The free version only allows users to create one “grid” but you are able to have multiple topics housed within that grid. Flipgrid’s functionality is also limited in that videos can only be a few minutes in length.

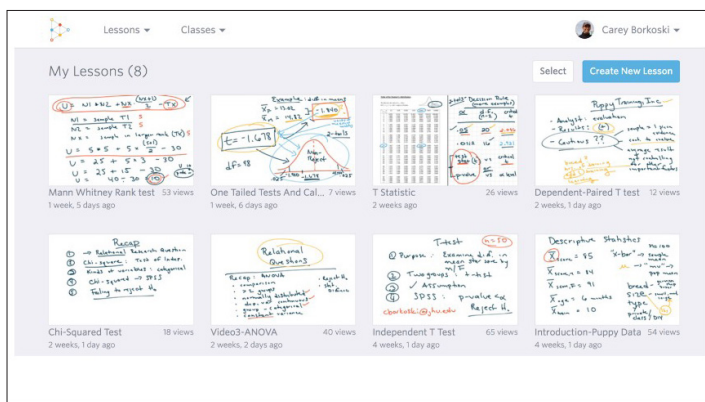


Figure 8. Educreation example from a graduate level research methods course that provides instructional videos around conducting a variety of quantitative analyses.

Making Strategic Choices

The narrative above provides insights into possible uses of just a few available technologies that can cultivate learning and higher-order thinking. When choosing the most appropriate tool for your learning community it is important to always start by considering your instructional purposes and learner

characteristics. By placing pedagogical considerations first and technology second you are more likely to ensure your chosen tool will (a) promote interactivity with content, the instructor, and other learners; (b) create a sense of presence for students within your learning community; and (c) promote transformational learning where students have opportunities to “test and confirm ideas and apply what they learning” to new contexts (Anderson, 2008, p. 32). In her guide for using technology for teaching, Gonzalez (2018) posits that technology, when chosen strategically, has the potential to “give students experiences they would likely never have if it were not for the technology” (p. 26). Taking time during the planning process to determine whether a given technology is easily accessible and user friendly while also providing benefits not available through existing media will help ensure the technology will promote interactive and meaningful learning instead of just becoming an extraneous course element. It is also important to start small, perform practice runs, and make sure you are in the right mindset as you begin your work, so that you can handle setbacks patiently and flexibly alongside your students.

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Using Screencast Technology To Assess And Improve Student Writing: Research And Effectiveness

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Introduction

When I first began college, I recall being startled by the number of papers I would have to write for each class. In the social sciences, it was customary to write numerous papers of various lengths throughout the course of a semester. Oftentimes, we had to write papers in excess of ten pages for each class as our final writing project. After spending several hours perfecting what I thought was great work, I oftentimes received very little feedback on my work. There would be random scribbles and marks on my paper that were unintelligible. At the end, there would be a seemingly random grade scribbled down that made me feel uneasy about the entire writing process. This feeling is consistent with research that shows students are often confused by the marks and symbols that instructors provide (Carless, 2006; Holmes & Smith, 2003). When I became a professor, I vowed to do better. Through academic advising and other conversations, many of my students have expressed similar thoughts. In 2013, I began using videos to provide feedback to students' assignments as a way to more fully explain how to improve their work. In this article, I will describe how I began to incorporate audio/video feedback into the grading process, the research that I collected on student viewpoints regarding video vs. traditional feedback, as well as some tips to get you started.

During my early years as a professor, I assigned many high-stakes writing assignments. I quickly realized that this was a recipe for disaster. More importantly, I noticed that students were not significantly improving their work over the course of the semester. After consulting with a representative from the Division of Technology Services, we worked toward strategies to create more effective assignments. He also suggested that I use audio/video feedback in response to students' submission to see if it could have an impact on their writing. After trying it out for a few assignments, I began to receive comments from students who thanked me for the detailed feedback, and many stated that they now knew exactly what to do to improve their future papers. Feeling enthusiastic about the results, I began to use this mode of feedback for all of my courses, and I haven't let up since.

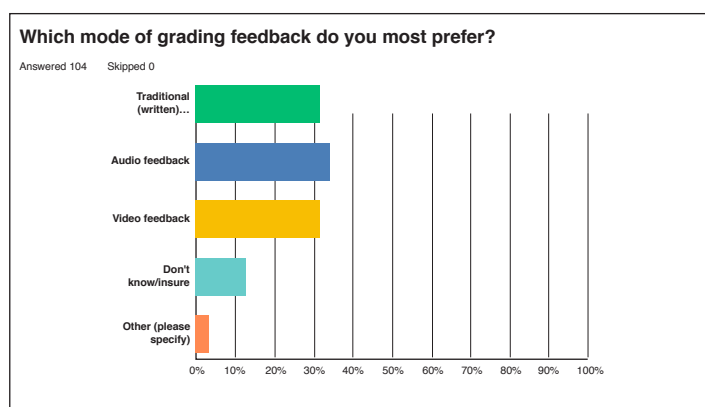
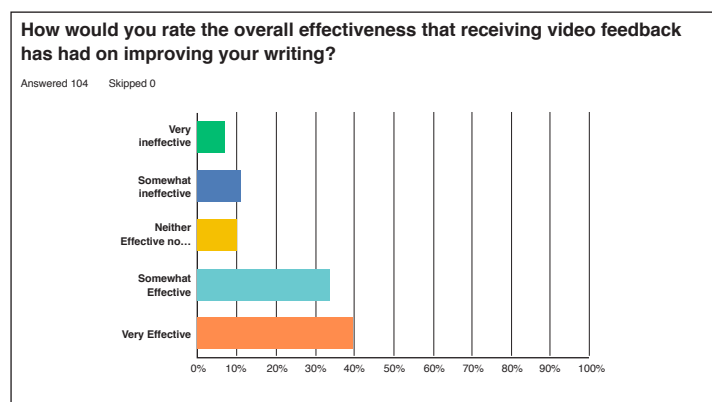
Although I may not be as technologically savvy as others in my age group, I quickly realized that learning to record (and edit) videos was quite simple. The preferred method of responding to student writing is via screencast videos. Screencasts are videos that capture the images on one's computer screen, either with or without audio (Anson, Dannels, Laboy & Carneiro, 2016). There are several free platforms that allow you to record screencast videos, such as Screencast-O-Matic, Filmora, Jing, and CamStudio. A minimal amount of additional technology is required; you simply need a computer that has a camera, has flash enabled, and has audio capabilities. When I first fully transitioned to using videos in this way, it took me several weeks to respond to papers. At times, students had already submitted a second assignment before I could get to the previous one. However, I later realized that this was due to the overall volume of papers rather than how much longer it took to record each video. On average, it takes me about ten minutes to read, grade, and record feedback for a four-page paper. This is partially explained by the amount of details I provide in each response. This time is lessened when each student is writing on a similar topic, as I can then address the class overall and limit how much individualized feedback I provide. Each video is about three to five minutes long. Over time, I learned to limit comments on things that were obvious or information that I would address to the entire class. Because I can talk faster than I can type, recording videos takes a similar amount of time as traditional feedback, if not less.

Research Study: Methods and Results

Using videos to respond to student writing is somewhat rare. As such, I wanted to gather data from students to see if they consider this to be an effective practice. After all, if it is not meaningful for students, it is not a task worth doing. Initially, I collected survey data for a Writing Intensive Curriculum project in the Spring of 2016. I later collected an additional sample at the start of the Fall 2018 semester. I surveyed my former students who had received and viewed video feedback to at least one assignment in my course. This study was limited to only my former students because I knew of no other profes-

sors across campus who did this. Limitations aside, I gathered survey data from 104 students across eight semesters, which is pretty good considering the voluntary nature of this project. The online survey asked students about whether any of their professors provided audio or video feedback, the effectiveness of such feedback, and basic demographic questions (e.g. gender, age, race/ethnicity) for the sake of controlling for variation. The results of the study were quite revealing. First, all but one respondent in the sample (103 out of 104) indicated that no more than two of their current or former professors provide audio or video feedback. This is consistent with previous research that has stated how rare this practice is (e.g. Stern & Solomon, 2006). Because of the phrasing of the answer responses (none, 1-2, 3-4, or 5 or more), it's likely that I am the only professor they have had provided this type of feedback. This is important because it does not allow for meaningful comparison to others who provide this form of feedback. Curiously, 53% of the sample chose detailed feedback as being the most important to their learning, whereas quality feedback was selected second most often (41%). Prompt feedback was by far the least preferred (only one person). That's great news, professors! The implications suggest that taking a few more days to provide better, more detailed feedback is more helpful to students in learning how to improve their writing.

There are several other important findings that relate to preferences for audio/video feedback over traditional feedback. For example, similar to the findings by Carless (2006), nearly three-fourths of the sample (77 respondents) indicated that they felt more confident about the fairness of their grade when receiving video feedback. Similarly, 70% of the respondents felt that audio/video feedback is more detailed. Finally, in rating the overall effectiveness that receiving video feedback had on improving their writing, 73% of the sample stated that it was either very or somewhat effective.



Overall, it appears that using video feedback to respond to student writing is preferred by many students. The following select qualitative comments affirm support for this mode of instruction:

“I was a big fan of the video feedback. There was no second guessing a correction or the reason for a grade.”

“Video feedback is great. It is more personal and definitely helped me to better understand where my assignments were lacking.”

“Written feedback can be difficult to read and understand compared to video/audio feedback which is always there and you can reference it without the confusion of not understanding what a professor has critiqued you on. Overall I enjoyed my experience with the video/audio feedback I received in past semesters.”

However, not every student prefers this mode of delivery. Some respondents provided what could be perceived as negative or critical qualitative responses:

“Need strong internet connection or else it freezes or lags.”

“If the feedback video was longer than about 2 minutes I was more likely to not listen to the whole thing.”

Discussion

The results of this study indicate that most students both welcome and prefer the use of audio/video feedback in their grading. Although this mode has been proven to be effective, there are some disadvantages to using this type of feedback. First, you must be in a relatively quiet area where you are free to record videos. I mostly have to do this at home or in my office when I can shut the door. This is a clear disadvantage compared to traditional feedback, with which you can pretty much

do anywhere. Also, technology sometimes fails. I have had occasional issues with the eLearning platform (Canvas) not submitting the recorded videos, the audio may not have worked, or Canvas may be down. Although the latter would impact any mode of feedback, the other two technological issues may deter some from trying this. Also, there are some limitations to the study that I conducted. First, this was a non-probability sample specific to my students. There may be others that use this practice in different, more effective ways than I do. Also, this sample of 104 students is not necessarily generalizable to my other students or all undergraduate students.

Despite these limitations, feedback that incorporates screen-casts into the grading process appears to be an effective and meaningful practice for improving student learning. If you decide to try it out, here are a few tips that may be helpful.

1. Start with one class and one assignment. This could be an upper-level, writing intensive course, or a lower-level introductory course. Take the overall workload into consideration. This may be especially useful for hybrid or online courses.
2. Set a schedule and stick to it. I recommend grading six or seven papers at a time and then taking a break. I recommend this for traditional feedback as well, but the screencasts make it a bit more strenuous to record all at one time.

3. Make a brief outline of notes to discuss. I typically record the video right after I have read the paper and submitted the grade so that it makes it easier to recall the strengths and weaknesses of the paper.
4. Once you try it, ask students for their input. After all, I do this because students view it as more effective and they learn more from it. This may not be suitable for all disciplines or professors, but I have a feeling that many educators would find it useful.

Overall, using audio/video feedback is a relatively new practice that is emerging in teaching and learning across a variety of educational levels. It has significantly enhanced my ability to connect with students and to improve their writing effectiveness. It is my hope that other instructors will incorporate this into their classes, which would benefit the generations of students to come.

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The Classroom as Practice

Cris Hakala, Ph.D. - Springfield College

For most of us, at some point in our educational experience, we went from being an eager participant in the educational process to a passive recipient of information. That transition might have taken place when we were in elementary school, or much later in high school. However, it's undeniable that for most of us, the idea of school being "fun" or "productive" is one that has changed over the years. I would submit that the issue of what happens in the classroom is at the center of this change for most students, and should be for faculty. In fact, faculty ought to consider how students learn when designing experiences. By doing this, they are helping students in ways that can lead to very successful classroom experiences (e.g., Benassi, Overson, & Hakala, 2014; Brown, Roediger, & McDaniel, 2014; Lang, 2014).

In elementary school, most classroom activities are both short and interactive. Students are constantly moving, either physically or mentally, and the activities are kept intentionally short so the students are able to focus for a limited period of time before moving on to other tasks. Students learn something, do an activity to reinforce that learning, and then move on to something else. In a perfect educational world, the thing that was learned is a thing that will be a part of a bigger thing later, and the reinforcement of that concept or idea will become a natural part of a students' learning experience. For example, when students first learn multiplication, the act of learning multiplication is a topic unto itself. However, once multiplication is mastered, students now use that process for other, more

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Career-Focused First-Year Seminars: Preparing Students For Success

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Abstract:

At the Benjamin Franklin Institute of Technology, students take major-specific first-year seminars that are co-taught by members of the STEM (science, technology, engineering and mathematics) and humanities faculties. These seminars, called Success in Major Seminars, were developed to promote the growth of supportive learning communities and prepare students for the rigor of their majors. Preliminary findings from student surveys and course evaluations indicate that these courses have increased students' confidence in their majors and in themselves. The outcomes are particularly significant for increasing diversity and equity in STEM fields, as the majority of students at our college are persons of color, and nearly half identify as first-generation college students.

Introduction

Success-in-Major Seminar Origin and Goals

Benjamin Franklin Institute of Technology (BFIT), serves the Boston area's diverse student body and is committed to student success and career readiness in technology-related fields. Through personalized support, hands-on learning, and industry-informed curricula, BFIT prepares graduates for work, life-long learning, and membership in their communities.

Retaining students as they transitioned from developmental courses to their majors of study posed a challenge for the college. The highly-structured nature of students' majors requires significant buy-in to such career-focused degrees. Retention and graduation rates, while the highest of any two-year college in Massachusetts for BFIT's associate's programs, were an additional concern, as were the development of supportive learning communities. To meet these challenges head-on, BFIT piloted a Success in Major Seminar for our largest major: Automotive Technology. The pilot proved effective, so we applied our seminar model to all majors.

We currently offer the following Success-in-Major courses:

- Automotive Technology
- Construction Management
- Computer Technology/Health Information Technology
- Electronics Engineering Technology

- Electrical Technology
- Heating, Ventilation, Air Conditioning & Refrigeration
- Mechanical Engineering Technology
- Technology Business and Management

Literature Review: Increasing Feelings of College Readiness through First-Year Seminars

The literature calls for institutions to build supportive spaces and networks for students who are underrepresented in STEM, including women, persons of color, and first-generation college students, among others, as well as for researchers and educators to pay greater attention to the various interventions which may help promote retention and feelings of belonging among these students (Ong and Smith et al. 2018; Rainey et al. 2018). Ong and Smith name "safe social spaces" which "offer support and enhance feelings of belonging in STEM" as essential supports for students for whom the individualism, competitiveness and homogeneity of typical STEM environments may feel threatening and forbidding (2018). These authors include the first-year seminar with a host of other institution-driven interventions that should also be coupled with student-led actions to enhance retention and inclusion.

In their literature review, Permzadian and Crede (2016) found that first-year seminars are promoted by colleges and universities seeking to reduce entry stress, facilitate student adjustment to college, improve student knowledge of the concepts and procedures they will use in their academic programs, and introduce students to resources such as counseling centers. Their results suggest that first-year seminars are indeed lauded as meeting their many goals, but that there are varying outcomes when examining student attrition and academic performance. Seminars that pair major-relevant skill development with improving college adjustment were found more effective than those purely focused on building college readiness and a supportive community of learners. Moreover, first-year seminars at two-year colleges were found to have greater positive impacts on their students than those at four-year institutions.

The findings of the literature review suggest that seminars like ours, which are specific to students' majors, a semester one requirement for two-year programs, and serve a majority of students whose identities, cultures and experiences are under-represented in STEM, may have positive impacts on students' feelings of belonging and their preparedness for college.

Research Questions

To evaluate the effectiveness of Success-in-Major seminars in fulfilling their goals, we sought to answer the following research questions:

1. Are students who take Success-in-Major seminars confident in their chosen degree and aware of the expectations of their major and future career?
2. Have Success-in-Major seminars increased students' awareness of the college resources at their disposal, and their utilization of those resources?
3. Have Success-in-Major seminars improved student satisfaction with their academic performance?
4. Did students increase their awareness of campus resources and utilize them?

Methodology

To begin to answer our research questions, Success-in-Major instructors administered student surveys at the beginning and end of the semester, from Spring 2018 through Fall 2018. Both surveys were administered initially through Google Forms, Google's survey application. Fall 2018 surveys were administered using Canvas after college-wide adoption of the learning management system.

The survey administered at the start of the semester asked students about their preferred learning environments, interests, and knowledge of the field, with the goals of gauging their confidence in their major and developing a course that would be individually meaningful and supportive.

Sample questions include:

- What skills would be particularly helpful for you to build at BFIT?
- Describe the environments in which you find you best learn.
- What would you like to learn in this course?
- Why are you interested in entering this field?
- What do you know about your prospective field?

Surveys administered at the end of the semester measured if seminars met their goals by gauging students' feelings of

preparedness for their major, their confidence in their fields of study, their utilization of campus resources, and their thoughts on personal strengths and areas for continued growth. The surveys had the additional aim of retrieving honest feedback about the course. Sample questions include:

- Do you feel better prepared to move forward with your major?
- What jobs could you expect to land with your degree after graduation?
- How familiar are you with other BFIT offices and services?
- How did you feel about this course?

Our respondent pool included 117 students, 52 from Fall 2018, and 65 from Spring 2018. They represent the following courses:

- Success in Electrical Technology (2 sections)
- Success in Mechanical Engineering Technology (3 sections)
- Success in Electronics Engineering Technology, Biomedical Engineering Technology and Computer Engineering Technology (4 sections)
- Success in Computer Technology/Health Information Technology (2 sections)
- Success in Heating, Ventilation, Air Conditioning and Cooling (1 section)
- Success in Construction Management (1 section)

Results

For this paper, we chose to analyze end-of-the-semester results, only. We specifically examined five survey questions:

1. How confident are you with your choice of major?
2. Do you feel better prepared to move forward with your major?
3. How satisfied are you with your academic performance this semester overall?
4. How often did you seek out help at the ASC this semester?
5. How familiar are you with other BFIT offices and services?

We felt the responses to these questions best indicated if seminars met their goals because they measured students' feelings of college and career readiness and their feelings of attachment to and support from the college. The data can be found organized graphically below.

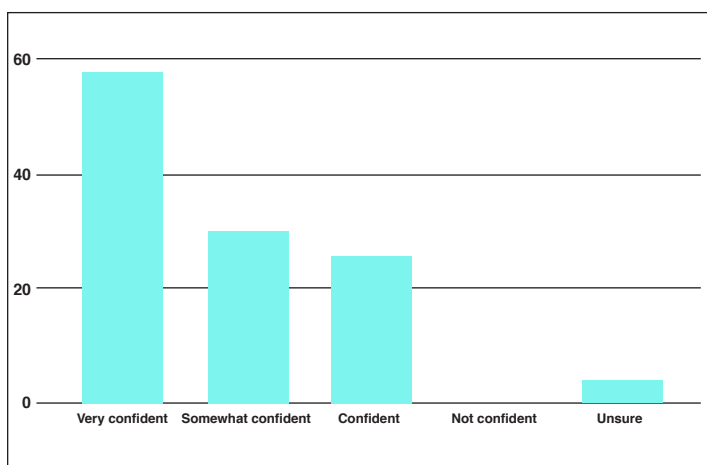


Figure 1. Results of survey question #2: How confident are you with your choice of major?

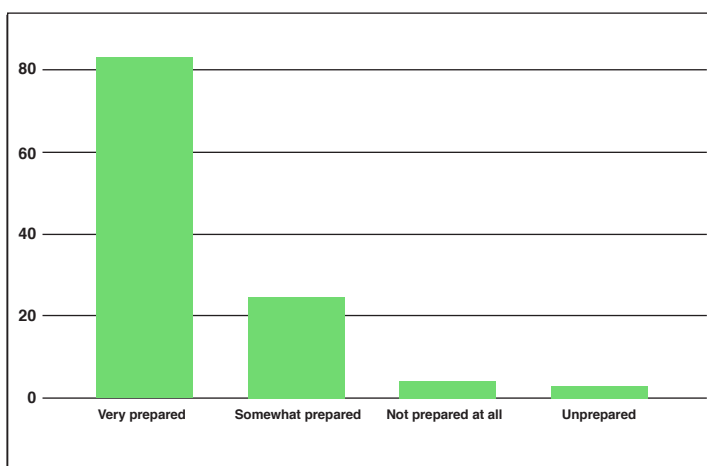


Figure 2. Results of survey question #1: Do you feel better prepared to move forward with your major?

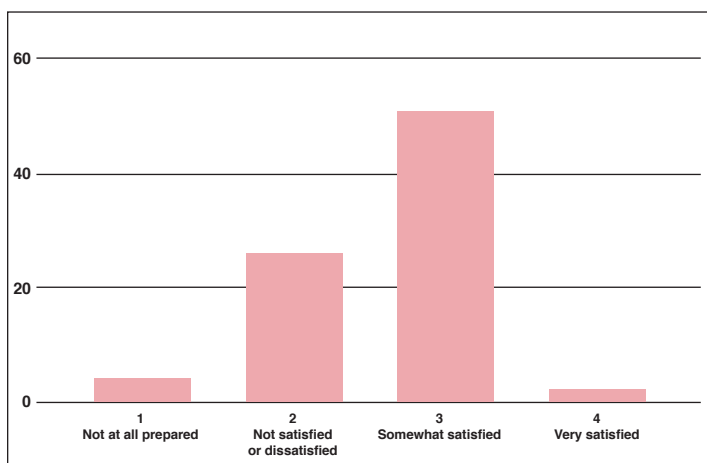


Figure 3. Results of survey question #5: On a scale of 1 to 4, 1 for “not at all satisfied” and 4 for “very satisfied,” how satisfied are you with your academic performance this semester overall?

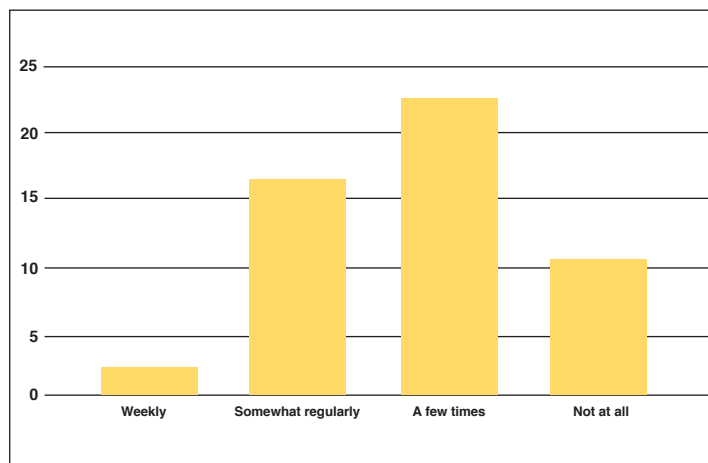


Figure 4. Results of survey question #6: How often did you seek out help in the ASC (Academic Success Center)?

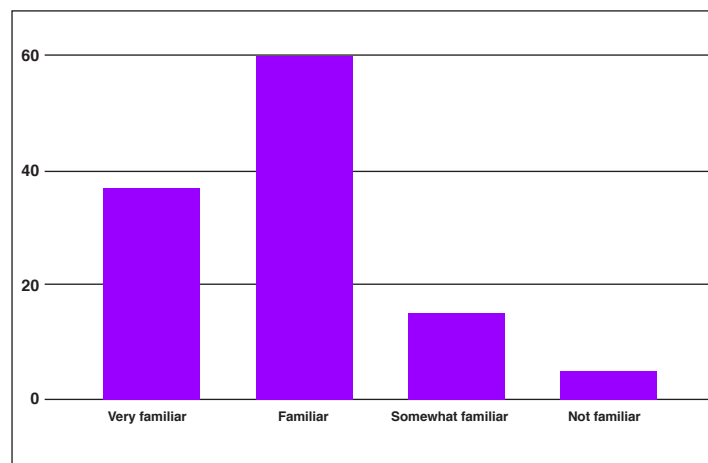


Figure 5. Results of survey question #4, how familiar are you with other BFIT offices and services?

Discussion

As the literature suggests, major-specific seminars make more positive impacts on students than traditional first-year seminars, especially for those who are under-represented in STEM. So, ultimately, did our Success in Major Seminars do their job? Our results answer a definitive yes.

Confidence in Major

Our first research question sought to gauge students' confidence in their choice of major. 96% of respondents reported having confidence in their major, ranging from "very confident" to "somewhat confident" (49.2% felt very confident, 22% felt confident, and 25.2 felt somewhat confident). No students answered "not confident," while 3.4% responded "unsure."

Factors other than seminars certainly contribute to these positive results – career-focused institutions tend to attract students with more determined career paths, for example – but it would be a mistake not to attribute some of this confidence to Success in Major Seminars. All STEM faculty involved with seminars work or worked in their respective disciplines, so they routinely provide students with current insiders' views of their fields. Also, many in class exercises give students insight into the expectations and day-to-day realities of their fields. In one such activity, students are tasked with searching for their "dream job" using the college job board and summarizing its educational requirements and responsibilities. Co-instruction by STEM and humanities faculty and the flexible, career-oriented yet student-driven seminar curriculum seems to help students understand if indeed their majors are right for them.

Preparation for Continuing in Major

Building on students' confidence in their major is another critically important question, one which could measure the entire success of the seminar: how prepared do students feel to move forward in their majors? Like our previous responses, these results offered another unequivocal endorsement of the Success in Major Seminars. Of those asked, a solid 94% felt prepared to move forward in their majors, with 72.3% of all respondents feeling "very prepared" and 21.7 % feeling "prepared." Only 2.6% felt "unprepared," while 3.4% felt "not prepared at all." These responses certainly speak to the carefully-considered yet flexible seminar curriculum that allows students to receive more support from faculty in areas that prove particularly challenging to them on a case-by-case basis, as well as the faculty's ability to delineate the sequence of a program and all its demands.

We read both students' confidence in their majors and their feelings of preparedness to move forward in their majors as indicators of the critically important "sense of belonging in STEM" (Ong et. al 2018; Rainey et al. 2018). Coupling an understanding of academic and professional expectations with conversations about concepts such as multiculturalism, discrimination and inclusion during seminar hopefully indi-

cates to our students that, while many fields are not yet where they should be in terms of gender and racial equality (Yu et al. 2016), they have an ability and a right to succeed. Theory is paired with practice by inviting successful alumni to speak to seminars and assigning projects that investigate efforts by STEM employers to diversify their staffing. Ideally, by welcoming students and graduates to share their own experiences and addressing head-on some of the challenges our diverse group of students may face in the classroom and the workplace, we enhance our students' feelings of confidence, competence and belonging.

Awareness of College Resources

Moving away from major-specific content, we measured an important aspect of all first-year seminars: how well do students know the resources at the college? 95.6% of respondents felt familiar with the college's offered resources, with 31.6% answering "very familiar," 51.2% "familiar," and, finally, 12.8% "somewhat familiar." 4.2% answered "not familiar." These findings are unsurprising, as BFIT is a small institution that encompasses only two buildings and enrolls about 500 students. Students find it very difficult to "slip through the cracks." Another cause, however, could be the visits to seminars each semester by representatives from BFIT's financial aid, career services, student wellness, library services and academic support offices. These frequent visits by student services could explain why 80% of respondents reported having visited the Academic Success Center—BFIT's drop-in tutoring center—at least "a few times" over the course of the semester.

These results are particularly encouraging because students at commuter-majority schools like ours are not always aware and/or connected to the resources available to them. Our population often faces challenges that can severely impact academic success, such as food and housing insecurity (Purnell and Blank 2004). Learning about essential services such as our food pantry and transit fund is of critical importance to our students' success. Throughout the semester, students visit the offices of the Director of Student Wellness and Support and the Assistant Director of Financial Aid to learn who to seek out at BFIT if their home or financial situations become unstable, without the awkwardness or uncertainty of seeking out unfamiliar offices on their own. It's no small jump, then, to see how knowing about systems of support could also feed directly into students' confidence in their major and feelings of preparedness; they know where to go when they face challenges that may hinder their success.

Satisfaction with Academic Performance

Students' academic performance stands as another area of concern for all first-year seminars. In our case, though, we chose to ask the students how they felt about their academic performance. This question purposely deals less with GPA and more with students' perception of what academic success looks and feels like for them, their "academic self-concept" (Choi 2005). Overall, most respondents felt satisfied with their overall academic performance during the semester they took their Success-in-Major seminar; 27.4% were "very satisfied" and 46.2% were "somewhat satisfied." 23.1% reported they were "not satisfied or dissatisfied," while 3.4% answered "not at all satisfied." Academic self-concept is a predictor of grades (Choi 2005; Ordaz-Villegas et al. 2014); therefore, it would be unsurprising for those 73.6% of students who reported feeling satisfied with their academic performance to also have passed their courses.

Self-regulation, motivation and creativity are factors which impact academic self-concept (Ordaz-Villegas et al. 2014). It is therefore also likely that students who report having greater awareness of college services and feeling more prepared to enter their majors also have a higher academic self-concept. Although we do not yet have longer-term data on how these students perform in future semesters, we can suggest that students' generally high academic self-concepts, awareness and utilization of college resources, and feelings of preparedness for future courses indicate they have built solid foundations for academic success through their participation in Success-in-Major Seminars.

Conclusion

While longitudinal data is still needed, the results of our study indicate the Success in Major Seminars are accomplishing their main goals: growing supportive learning communities while also preparing students for both the rigor of their academic programs and the reality of their fields post-graduation. Further, these seminars helped increase students' confidence in their majors, instilling in them a sense of belonging in STEM-focused careers. As our student body contains mostly persons of color, almost half of whom identify as first-generation college students, seminars such as these may work toward addressing the lack of both diversity and equity in STEM fields.

Although we are still in the early stages of the program and our data collection, our initial study makes a clear point: major-specific, first-year seminars positively impact students in ways

too great to ignore. Given the likelihood that the long-term data we collect will indicate links between retention and graduation rates and completion of Success-in-Major Seminars, colleges of all kinds should consider implementing major-specific first-year seminars of their own.

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Continued from page 13

complicated tasks. Each time the student does multiplication, they are working with a concept IN CONTEXT that they had to take time to learn. They practiced that concept, very intentionally, when they were learning it, but now are able to do the task without a great deal of effort, as it is now just a part of the larger, more complex tasks they are doing.

In many ways, this is how learning works best. You learn subsets of tasks, practice them in isolation, then they become a part of something bigger. Once they are part of that “something bigger” the practice is now completely embedded in the larger task, and it becomes a very well learned task.

The same can be said for all of education. You learn something in isolation, practice it within very controlled, very contrived conditions until you can do it well. Then, you embed that concept or idea into a more rich context and the practice of the larger skill becomes also practice for the more discrete skills. This practice helps students learn that the things they are encountering in their courses exist within a world that is greater than the simplified context in which they lived in AND that those contexts matter a great deal.

From the perspective of a cognitive psychologist, the idea of practice makes a great deal of sense. The basic literature is filled with examples of practice leading to more effective cognitive processing (Anderson, 1983; Atkinson & Shiffrin, 1968; Neely, 1977). Cognitive architecture requires that small, practiced behaviors be learned well prior to the development of automatic skills. Consider, for example, the idea of reading. When a person learns to read, they learn first by learning letters, then sounds, then blends, then words, then sentence, etc. They already know much of this intuitively through spoken language. However, to read, the practice that is done in the context of spoken language and through learning to read builds up to the point where letter, word, syntactic recognition occurs automatically. And, because attention is not completely devoted to the subcomponents of reading, the person is able to actually read the text to gain an understanding rather than just read the words to read the words. The attentional resources that are freed up from automatizing the simply behaviors (through practice) give rise to the space for the individual to expend cognitive energy on higher level inferencing and comprehension. However, without the practice to learn to do these larger, more complex tasks, the less likely the reader will be able to.

It is critical that faculty consider this when designing learning experiences. To ask a student to engage in a task that he or she has never done before, without practice, is to set the student up for failure. Rather, consider the practice metaphor. If you want students to give an oral presentation, give them the chance to start small and do very brief presentations (1 minute or less) and build up from there. If you require a 10 page paper, start with a series of short, 1 page papers with academic and writing support to develop a strategy for how the student may, eventually, get to 10 pages. Consider all the possible ways you can take the desired task and break it down to simpler, more discrete tasks that can be taught, learned and they applied once the skills are there and require very little attention.

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