MODEL FOR ENGAGING THE ONLINE LEARNER

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ABSTRACT

Student success is at the heart of online course design, delivery, and evaluation. This article details a prototype of a model for engaging the online learner that considers the components found in extant research of what impacts student achievement in online learning environments. The model has an inner wheel of seven segments with three outer components that together impact online learner success. Based on an understanding of sound research and years of experience, this conceptual model provides a strong framework for online design that impacts student achievement.

Keywords: engagement, online teaching and learning, student success

INTRODUCTION

Online course design and facilitation can be overwhelming to instructors who are new to virtual teaching. It can be challenging to read about engaging students in a variety of ways while having to choose from the large selection of technology tools that can be incorporated into the online course and serve as technical support for students who are new to online learning when instructors are still familiarizing themselves with navigating the online course.

This article is an overview of a model to engage the online learner that can inform online course design and delivery practices. This model focuses on student success and how to prepare students for experiences beyond their current class and provides a framework for ways to consider designing online instruction for student success. An engaged student is more likely to succeed, but student engagement is multidimensional and should be considered holistically.

The research design for this study is a self-study, personal situated inquiry (Samaras, 2011), where I pulled data from the extant literature, years of Scholarship of Teaching and Learning (SoTL) research projects, and two decades of observations to build a prototype of a model for engaging the online learner. I plan future research to test the model to adapts and revise it as needed. The following research question guided the development of the model: What components are found to impact the engagement of the online learner?

I developed this prototype model for engaging the online learner after years of designing and delivering online instruction using SoTL, where my classroom was the lab for research, and Improvement Science (IS) principles, where one makes small cycles of changes and evaluations for continuous improvement. The full model for Engaging the Online Learner consists of seven inner segments and three outer boxes. Figure 1 shows the inner portion of the model (see Figure 2 for the full model).

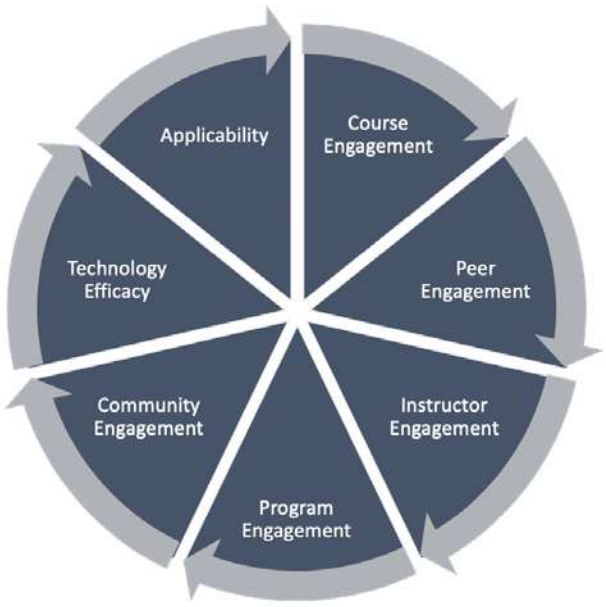

Figure 1. Partial Model Showing the Inner Segments

Table 1. Model Segments, What They Mean, and Examples of Ways to Implement Each Segment

Model Segment	What it Means	Examples of Ways to Implement
Course Engagement	Student's perceived level of connectedness to the course material	Active learning tools, such as: • Interactive videos (Playposit) • Online scavenger hunt (Goosechase) • Sketchnotes
Peer Engagement	Student's perceived level of connectedness to their peers	• Flipgrid • Discussion board debate • Group work • Web conference breakout rooms
Instructor Engagement	Student's perceived level of connectedness to the instructor	• Audio feedback on assignments • Video feedback on assignment • Welcome letter from Smore.com • Online office hours
Program Engagement	Student's perceived level of connectedness to the program of study	• Job shadow • Interview an expert • Virtual field trips
Community Engagement	Student's perceived level of connectedness to the community	• eService learning • Internships • Job shadow • Guest speakers
Technology Efficacy	Student's perceived level of ability to use the technology needed to navigate the course successfully	• Online field trip video of the course • Short videos of how to use tools • Screenshots of how to use tools • Recordings of synchronous meetings
Applicability	Student's perceived level that skills gained through activities (such as assignments, required reading, discussion forums, group projects) will be applied outside of the classroom	• Project-based learning • Case-based learning • On-the-job projects • Apprenticeships • Extensive job shadows • Write or present a response or pitch • Assignments that can strengthen resumes • Assignments that can be used in an interview portfolio

INNER SEGMENTS OF THE MODEL

The inner segments of the model include course engagement, peer engagement, instructor engagement, program engagement, community engagement, technology self-efficacy, and applicability. Table 1 provides some examples of ways to implement each of these areas.

Course Engagement

Course achievement is impacted by the students' engagement with the online course through accessing the learning management system (LMS) and the course content (Khan et al., 2017; You, 2016). Online course design provides ways to engage learners with course content through active learning tools such as interactive videos. Playposit (https://go.playposit.com/) is a free tool that quickly makes any existing video into an interactive video. The instructor can add interactions throughout the video such as true/false, matching, and open-ended questions. Interactive videos are a great way to ensure that students are engaging with the content and not losing focus. They are also a useful strategy to help students prepare for quizzes or tests. Instructors can access the back-end data showing which students are mastering course content and which students have learning gaps and would benefit from additional resources.

Other free tools, such as Goosechase (https://www.goosechase.com/)—an online scavenger hunt—serve as effective means to ensure that students new to online learning can find their way around the course and syllabus. Sketchnotes

(https://rohdesign.com/sketchnotes) are a great alternative to reading check-ins and allow students to turn in hand-drawn notes of what they have read. When students share their drawings with other students, it is a good way for the whole class to learn from one another as everyone may have different takeaways from the readings. It is important for instructors to carefully consider what tools they are using and why, as adding tools to an online course just to add them may increase student frustration rather than engagement.

Peer Engagement

Engaging learners with other learners is vital for increasing student performance in online environments (Kennison, 2016; Yemen-Karpuzcu at al., 2017). Often online learners feel like they are alone on an island, left to navigate the course alone (Gillett-Swan, 2017; Hawkins et al., 2012; Neupane et al., 2020). Peer engagement increases opportunities for critical thinking and skill development by learning from other students (Chadha, 2019). Increasing opportunities for learners to engage with peers helps alleviate feelings of isolation. A free online video-based discussion forum, Flipgrid (https://info.flipgrid.com/), is a great way to have students introduce themselves at the beginning of the semester so there are faces and voices associated with the names on the screen.

Engaging students in a discussion board debate is another strategy to get peers interacting. Well-designed discussion boards are key to increasing engagement (Gasell, 2020); therefore, instructors should look for innovative ways to increase learner interaction beyond the traditional way, where the instructor asks a question and after the first person to answer adds value, everyone else is left struggling to say the same thing in a different way. This is especially problematic when students are given a minimum of peer responses and they meet that requirement and move on. Innovative ways to utilize discussion boards, such as a debate, encourage students to engage with peers and course content. Other innovative discussion board activities include posting a picture with many incorrect things or a short case study with layers of problems for students to solve.

Other peer engagement strategies include asking students to practice a short 100-word pitch to sell an idea or assigning a quick "interview an expert" where students ask the same questions to an expert in the field and report back the top three takeaways from the interview. Group work is another way to engage peers in the course; however, it is best to provide expectations of participation upfront and devise ways to assess participation among group members, such as checking the history in a Google Doc that shows what each person contributed or utilizing a team-member evaluation. When using synchronous web conferencing tools such as Blackboard Collaborate, Zoom, Cisco Webex, or Microsoft Teams, students can be put into small groups in breakout rooms to solve a problem and then brought back to the larger group to share their solutions.

Instructor Engagement

Instructors are encouraged to engage with learners early and often in online courses (Angelino et al., 2007). Online learners, in addition to engaging with peers, need to feel there is a captain of the ship who is able and willing to navigate the way for successful course completion. Instructor engagement has been found to increase learner satisfaction and achievement (Bloomberg, 2020). Beyond logging in and interacting with students through discussion forums, course announcements, and synchronous lectures, instructors can increase their connection with students by providing audio or video feedback on assignments. Some LMSs have built-in options for giving audio feedback in discussion forums and the grade book.

If the LMS does not provide a built-in option for multimedia feedback, Screencast-O-Matic (https://screencast-o-matic.com/) is a free tool that enables instructors to record audio or video feedback for students and allows the instructor to capture a portion of the screen and record personalized feedback. Instructors can address the student by name and display their paper or assignment through the screen capture while verbally discussing what was done well and what areas exist as opportunities for improvement.

Sending a welcome letter before the start of the course with a link to the syllabus, required textbooks, helpful prereadings, and the best way to contact the instructor is a great way to create a connection prior to the start of class. Smore.com (https://www.smore.com/) is a free and user-friendly tool for creating professional welcome letters or class newsletters, and content can easily be linked or added through drag and drop.

Holding online office hours during the course helps students feel the instructor is accessible. Since online students are missing the opportunity to approach an instructor after class as they would in a face-to-face course, online office hours provide students a way to "stop by" with questions. Even if they never attend an online office hour, students will feel at ease knowing the option is available if needed.

Program Engagement

Students who are engaged with their program of study as a whole and are able to see how their current course applies to the program are more likely to be successful in the course and in the field (Fenton & Gallant, 2016; Miller et al., 2019). Requiring students to job shadow an expert in the field is an effective way for students to see how the course applies to the knowledge needed in the field, which will help them engage more fully in the course. A similar way to get students engaged with the program of study is to have them interview an expert. When students share the lessons they learned with the class, all learners in the course can benefit from the collective wisdom gained from all the experts interviewed. Virtual field trips are another useful strategy to engage students within the overarching field (Bursztyn, 2020). There are a variety of virtual field trip options available online for free, from art museums to anatomy explorations.

Community Engagement

Students who engage with the community during a course experience increased learning and problem-solving skills and are more likely to apply the learning in practice (Bandy, 2016). Engaging students with the community, where possible, is helpful for students as they can build their professional networks, learn how things are done on the job, and strengthen their portfolios and resumes. The Carnegie Foundation for the Advancement of Teaching defined community engagement as "the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity" (as cited in Driscoll, 2014, p. 3). When students interact with professionals in the community in their chosen field, they are more likely to understand the job when they start working, increase connections with people who can provide recommendations, hear of job openings, and sharpen skills that are not learned from a textbook.

eService-learning projects serve as a way for students to increase their talent while providing support for the community. Engaging students through eService-learning projects creates a win-win situation and has been shown to increase student satisfaction and retention. Internship and job shadow requirements in a course, where applicable, also help students apply new knowledge learned in the course in real-world settings. Another way to connect students to the community is by inviting guest speakers into the course, either asynchronously with prerecorded videos or synchronously through web conferencing tools. Online courses provide opportunities to invite guest experts that normally would be unable to engage in a course due to the time and cost restraints of appearing in person.

Technology Efficacy

The students' perceptions of their abilities and their actual capabilities using the required technology to be successful in an online course can impact their success and completion (Henderson, 2019; Mikusa, 2015). It is helpful to ask learners at the beginning of the semester about their previous experience with online learning and with the particular LMS used in the course and other tools or software expected to be used in the course. Whether learners' abilities are assessed or assumed, there are a wide range of capabilities, and there are things that can be done to educate learners and put them at ease by familiarizing them with the online space.

Sharing the screen synchronously or using an asynchronous prerecorded online field trip of the course can visually and audibly show learners how to maneuver through the course and find things such as the grade book, course schedule, syllabus, and where to submit assignments. Short videos can also be created using a screen-capturing tool to demonstrate how to use tools in the course. It is also helpful to provide a document to students with screenshots of how to use course tools for those who would rather view step-by-step instructions at their own pace rather than at the pace of the video. It is also a good idea to record any synchronous meetings for students to go back and rewatch or for students who may have missed content due to work schedules or technology/access issues.

Applicability

Malcolm Knowles (1996) supported the importance of adult learners understanding the benefits of learning something and how to apply it to increase learning and learning transfer. Further, there is an abundance of discussion around the gap between what universities are preparing students for and the skills needed on the job; therefore, this section will support the case for being mindful of the applicability of what is added to online courses. Instructors should contemplate how content can be presented in a way that applies to the workforce and consider how assignments and deliverables can strengthen resumes and prepare students for the next course or the work they will be doing.

Instructors can evaluate if it is possible to replace a costly textbook with a project-based activity that teaches skills needed on the job and think about what gaps exist between what is presented in the textbook and what is needed on the job. For example, in a project management course, the textbook explains what "scope creep" is and that it should be avoided; however, it does not really cover what to do when you are on the job and scope creeps starts to happen. When students can see how engaging with the course will help them be successful in their next course or on the job, and they are able to see the "why" and "what's in it for me," they are more likely to fully engage with and be successful in the course.

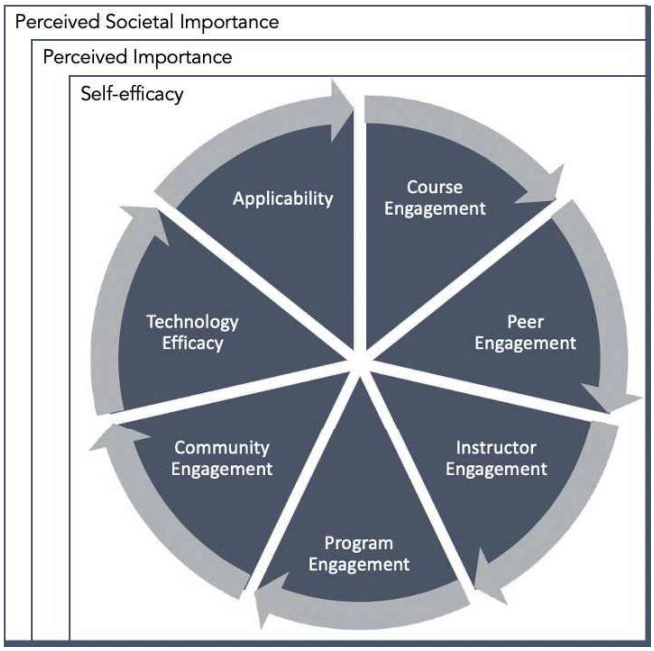

Figure 2. Model for Engaging the Online Learner

OUTER BOXES OF THE MODEL

The full model for Engaging the Online Learner consists of the inner segments detailed above and three outer boxes of Perceived Societal Importance, Perceived Importance, and Self-Efficacy (see Figure 2). The full model places the inner segments that impact student engagement in online environments within the context of the three outer boxes with the assumption that a learner's perceptions in these three areas impact their engagement with a program. The outer boxes of the model are adapted from Ajzen's (1991) theory of planned behavior and put in context how the student perceives the importance of the course and their own ability to successfully maneuver through the course.

At the macro level, marketing and recruiting materials should help students see the value of the program. Once accepted into the program, advising should help students understand the path to completion and how each course fits towards that goal. At a more micro level within the online course, instructors should help students see the importance and help increase the self-efficacy of successful course completion.

PERCEIVED SOCIETAL IMPORTANCE, PERCEIVED IMPORTANCE, AND SELF-EFFICACY

As stated before, the outer boxes of the model are adapted from Ajzen's (1991) theory of planned behavior and are labelled Perceived Societal Importance, Perceived Importance, and Self-Efficacy (see Figure 3 for a description and some considerations of each box). Perceived Societal Importance in the context of this model is how a student's peers in the field perceive the importance of the content of the course, which impacts their own view of the importance of the course. Applying Perceived Importance to the context of engaging learners, the student's perceived importance of the course and how it fits into the overall program of study and their own career goals impacts their engagement level with the course. Lastly, the student's belief in their own ability to successfully reach the goal impacts their willingness to work toward the goal and is represented in the Self-Efficacy part of the model.

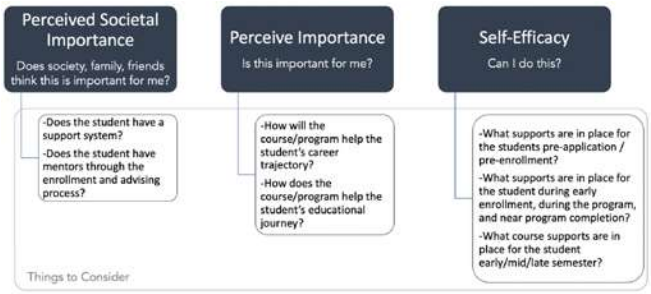

Figure 3. Descriptions and Things to Consider About the Outer Boxes of the Model for Engaging the Online Learner

CONCLUSION

Whether you are new to online teaching and learning or are an expert online instructor, this overview of the model to engage the online learner can be helpful in informing course design and delivery practices. In addition to focusing on student success within the course, this model focuses on holistic student success and how to prepare students for experiences beyond the current class. Online course design and facilitation can be overwhelming to those who are new to virtual teaching. The vast selection of technology tools that can be incorporated into the online course, serving as technical support for students who are new to online learning while instructors are familiarizing themselves to navigating the online course, and reading about engaging students in a variety of ways, can be overwhelming for the newer online instructor. This prototype of a conceptual model is a culmination of years of online course design, facilitation, and innovations (some successes and some failures), and it can hopefully provide a framework for ways to consider designing online instruction for student success. An engaged student is more likely to be a successful student; however, student engagement is multidimensional and should be considered holistically.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Angelino, L. M., Keel Williams, F., & Natvig, D. (2007). Strategies to engage online students and reduce attrition rates. The Journal of Educators Online, 4(2). https://doi.org/10.9743/JEO.2007.2.1

Bandy, J. (2016). What is service learning or community engagement. Vanderbilt University Center for Teaching. https://cft.vanderbilt.edu/guides-subpages/teaching-through-community-engagement

Bloomberg, L. D. (2020). Coaching faculty to teach online: A single qualitative case study at an online university. International Journal of Online Graduate Education, 3(2). https://doi.org/10.5281/zenodo.3906856

Bursztyn, N. (2020). From Grand Canyon to Yosemite: Lessons learned from the development and assessment of digital geoscience field trips for mobile smart devices. Parks Stewardship Forum, 36(2). https://doi.org/10.5070/P536248268

Chadha, A. (2019). Engaging learners: A digital best practice. In P. Hycy Bull & J. Keengwe (Eds.), Handbook of research on innovative digital practices to engage learners (pp. 224–245). IGI Global. https://doi.org/10.4018/978-1-5225-9438-3.ch011

Driscoll, A. (2014). Analysis of the Carnegie Classification of Community Engagement: Patterns and impact on institutions. New Directions for Institutional Research, 2014(162), 3–15. https://doi.org/10.1002/ir.20072

Fenton, L., & Gallant, K. (2016). Integrated experiential education: Definitions and a conceptual model. The Canadian Journal for the Scholarship of Teaching and Learning, 7(2). https://doi.org/10.5206/cjsotl-rcacea.2016.2.7

Gasell, C. (2020). Measuring faculty-student interaction in online courses using asynchronous discussion boards: A campus-wide analysis [Doctoral dissertation, Boise State University]. Boise State University Theses and Dissertations. 1674. https://doi.org/10.18122/td/1674/boisestate

Gillett-Swan, J. (2017). The challenges of online learning: Supporting and engaging the isolated learner. Journal of Learning Design, 10(1), 20–30. https://doi.org/10.5204/jld.v9i3.293

Hawkins, A., Barbour, M. K., & Graham, C. R. (2012). "Everybody is their own island": Teacher disconnection in a virtual school. International Review of Research in Open and Distributed Learning, 13(2), 123–144. https://doi.org/10.19173/irrodl.v13i2.967

Henderson, C. C. (2019). Examining the relationship between self efficacy and achievement for developmental mathematics students at two Alabama community colleges [Doctoral dissertation, Morgan State University]. MSU Student Collection. http://hdl.handle.net/11603/17663

Kennison, R. (2016). Back to the future: (re)turning from peer review to peer engagement. Learned Publishing, 29(1), 69–71. https://doi.org/10.1002/leap.1001

Khan, A., Egbue, O., Palkie, B., & Madden, J. (2017). Active learning: Engaging students to maximize learning in an online course. Electronic Journal of e-Learning, 15(2), 107–115.

Knowles, M. (1996). Andragogy: An emerging technology for adult learning. In M. Tight (Ed.), Education for adults, volume I: Adult learning and education (pp. 53–70). Routledge. https://books.google.com/books?hl=en&lr=&id=ZEfXAwAAQBAJ&oi=fnd&pg=PA53&dq=andragogy+malcolm+knowles&ots=KYAHJ76FNz&sig=TSQJcv6hzvcdgACc2Vti_ZbXbFQ#v=onepage&q=andragogy%20malcolm%20knowles&f=false

Mikusa, M. E. (2015). The effect of technology self-efficacy and personal engagement on students' and teachers' attitudes toward technology use in education [Doctoral dissertation, Appalachian State University]. NC Docks. https://libres.uncg.edu/ir/asu/f/Mikusa.pdf

Miller, M. C., Boluk, K., & Johnson, C. W. (2019). 'Lift off!': Employing an integrated curriculum design to increase student, faculty, and community engagement. Journal of Hospitality, Leisure, Sport & Tourism Education, 25, 100203. https://doi.org/10.1016/j.jhlste.2019.100203

Neupane, H. C., Sharma, K., & Joshi, A. (2020). Readiness for the online classes during COVID-19 pandemic among students of Chitwan Medical College. Journal of Nepal Health Research Council, 18(2), 316–319. https://doi.org/10.33314/jnhrc.v18i2.2725 PMID:32969401

Samaras, A. (2011). Self-study teacher research: Improving your practice through collaborative inquiry. Sage.

Yemen-Karpuzcu, S., Ulusoy, F., & Işıksal-Bostan, M. (2017). Prospective middle school mathematics teachers' covariational reasoning for interpreting dynamic events during peer interactions. International Journal of Science and Mathematics Education, 15(1), 89–108. https://doi.org/10.1007/s10763-015-9668-8

You, J. W. (2016). Identifying significant indicators using LMS data to predict course achievement in online learning. The Internet and Higher Education, 29(1), 23–30. https://doi.org/10.1016/j.iheduc.2015.11.003