

Online education has significantly expanded over the last two decades. Several factors have contributed to the growth of online education, including the availability and use of new technologies, a changing student population, an increased societal focus on lifelong learning, and growing educational requirements for professional licensing and career advancement (Coe Regan, 2016; Hitchcock et al., 2019). COVID-19 has further contributed to the growth in online education as many programs had to make a sudden shift to using digital platforms as campuses shut down around the world. Research suggests that online learning has been shown to increase retention of information, and take less time, so the changes coronavirus have caused might be here to stay (Li & Lalani, 2020). Online courses provide opportunities for widening and expanding access to education (Kurzman, 2013). This is evidenced by a growing body of research literature which has confirmed the effectiveness of teaching practice online (Collins, 2008; Cummings et al., 2015; Cummings et al., 2013; Jones, 2015; Petracchi et al., 2005; Siebert et al., 2006). As educators consider teaching in a fully online environment, more consideration may need to be given to blended or hybrid learning formats for practice course delivery. There remains a dearth of literature on the use of skills labs for teaching courses, particularly using a blended or hybrid approach. The purpose of this study was to examine the use of a blended skills lab model for teaching online students. As the number of online programs continues to expand in education, the blended skills lab model offers a case study that may have implications for other education programs to consider as they formulate new models for online students.

Overview of Blended Education

The Online Learning Consortium's (2016) definition of blended (hybrid) online courses is one where most course activity is completed online, but there are some required face-to-face instructional activities such as lectures, discussions, labs, or other in-person learning activities. The terms "blended" and "hybrid" can be used interchangeably. Blended or hybrid courses are offered by nearly four out of five (79%) public institutions of higher education in the U.S. (McGee & Reis, 2012). Research suggests that blended courses can have a positive impact on efficiency, convenience, and learning outcomes (Stein & Graham, 2014). When properly implemented, blended learning can result in improved student success, satisfaction, and retention (University of Central Florida, 2018). Blended courses have proven to be popular choices for students because they allow students opportunities to have the best of both worlds, the flexibility of an online course and the benefits of the face-to-face classroom (Drysdale et al., 2013).

Jared M. Carman developed an instructional design model for blended learning. Applying the learning theories of Keller (1987), Gagné (1985), Bloom (1956), Merrill (2002), Clark (2002), and Gery (2002), Carman's framework proposes five constructs (live events, self-paced learning, collaboration, assessment, and reference materials) that are important elements of a blended learning process. Live events are instructor-led learning events in which all learners participate at the same time, such as in a live virtual classroom. Self-paced learning addresses learning experiences that the learner completes individually, at their own speed and on their own time, such as interactive weekly assignments, internet-based training, as well as synchronous activities, such as discussion boards, reading assignments, and quizzes. Collaborations involve engagement with peers to develop problem-solving skills (Carman, 2005). Assessment, the fourth component of the Carman model, is a measure of the learners' knowledge and includes measurements of whether or to what extent learning has taken place. Finally, reference materials or performance support materials allow students to access reference materials that enhance learning retention and transfer. This includes online videos and optional content that is not covered in a traditional class due to time constraints, such as PDA downloads and PDFs. Carman's (2005) five key constructs should be considered by educational programs in the development of blended learning courses. These components may be especially helpful when developing blended skills labs to teach content to online students. In the next section, we describe how we used the key ingredients of Carman's model to build a blended skills lab.

Application of the Blended Skills Lab Model

The online program is advertised as a primarily online program. Students are able to complete most coursework in an asynchronous format. Practice courses are offered asynchronously and require concurrent enrollment in a practice skills lab. The skills labs are held at regionally convenient locations around the state of Alabama, Atlanta, Georgia, and Jackson, Mississippi. Skills labs are held on college campuses in each city. The labs are held on 4 Saturdays once a month from 8:00am-12noon or 1:00-5:00pm, allowing students to complete 2 skills lab courses in one day. The blended skills lab model requires travel to the skills lab site only 2 Saturdays during the semester. Skills labs 1 (beginning of semester) and 4 (end of semester) are offered face-to-face, while skills labs 2 and 3 are held virtually. The virtual skills labs use a blended approach, with both asynchronous and synchronous components.

Collaboration. Pre-lab work gives students opportunities to collaborate peer-to-peer, which is a strength of a blended learning model (Carman, 2005). For example, in one course, students work in pairs to complete an interview assignment. Students work together to identify an interview time and use video conferencing software to record the interviews. The interviews are uploaded into a cloud-based program for the instructor to review and give feedback.

Live Events. Live synchronous, instructor-led events are also an important ingredient of a blended learning model (Carman, 2005). The blended skills lab model uses a live synchronous approach during virtual labs 2 and 3. During the live synchronous labs, the instructor reviews any required content completed for pre-lab work. The instructor may also divide students into groups to practice their interview skills. For example, using the video conferencing software, the instructor may move students into virtual breakout rooms to watch them demonstrate assessment skills. Students can record the breakout sessions during the live synchronous lab. The instructor can give feedback as students are demonstrating the skills (instructor-student collaboration) or offer direct feedback to students by email or through the learning management system.

Self-Paced Learning. The blended skills lab model allows students to complete work online at their own pace. Self-paced learning is another component of an effective blended learning model (Carman, 2005). The self-paced learning is accomplished through the use of a learning management system (LMS) to deliver online content to students. Students are assigned asynchronous pre-lab work such as case study reviews, review of content from the practice course, or sample assessments. Self-paced post-lab work may include self-reflections on the video recording of the student demonstrating a skill or reflections on skills demonstrated during the synchronous lab session.

Assessment. Assessments are the measures taken to ensure that students successfully understand the content presented. Carman (2005) sees this as a critical ingredient of learning. In this blended skills lab model, students are assessed on their ability to demonstrate specific practice skills. Students can earn up to 25 points per lab. Pre-lab work, such as discussion posts or video recordings of interviewing skills, is submitted for grading and instructor feedback. Student skills are also assessed and graded during the synchronous lab session. Post-lab work, including self-reflections on overall skill development for each lab, is also submitted for assessment. Students also have opportunities to give feedback to their partner after specific skill-building exercises such as role-plays. This peer feedback is not graded.

Performance Support. The fifth and final ingredient of Carman's blended learning model is performance support material. Students have access to reference materials that enhance learning retention and transfer. Within the learning management system used for this blended skills lab model, students can access additional resources such as case studies, video content, sample assessments, and other resources to support continued practice skill

growth and development. Students can refer back to this material at any time. Students who desire additional readings or content may access additional information that the instructor is unable to cover during the synchronous sessions or face-to-face sessions.

Challenges of Blended Skills Lab Model Implementation

Based on our experiences implementing a blended skills lab, we describe some of the challenges and opportunities we encountered and offer some recommendations regarding areas to consider when developing a similar blended skills lab for online students. When implementing a blended skills lab model for online students, multiple challenges arose, such as developing course content, identifying skills lab locations, training skills lab instructors and students to use technology, and identifying adjunct faculty to teach the skills labs.

The first challenge was the development of the skills lab course. One of the greatest challenges with course development was identifying ways to deliver the same content that was offered to students in Alabama. Although the method of delivery would change, faculty wanted to ensure that all students enrolled in the skills labs, regardless of location, were receiving the same curriculum content. A second challenge in using a blended skills lab model is identifying locations for the skills labs to be held. Initially, skills labs were held in hotel conference rooms. This proved to be very expensive and did not seem to be the best educational environment for students. The decision was made to reach out to colleges/universities regarding contracts for classrooms. A third challenge in offering a blended skills lab model is ensuring that adjunct faculty and students are trained to use the technology needed to deliver the content for both asynchronous activities and the synchronous sessions. Resource materials were created for faculty and students, and posted in the LMS, offering a step-by-step guide for using each tool. Technical support is available for questions that arise during the semester, including the days of the synchronous sessions. To address these challenges prior to future sessions, students are encouraged to meet individually with technology specialists to test the software on available Wi-Fi networks. Students could also receive individual assistance on recording and uploading videos. Identifying adjuncts in Atlanta and Jackson to teach the blended skills labs was the fourth challenge. Both locations are over 200 miles from the main campus in Tuscaloosa so it was not a feasible option to have local adjuncts travel to these sites. The Program Director reached out to the Director of Field to identify field instructors in both communities. Program graduates were also identified as prospective instructors. Having field instructors and graduates of the program to serve as adjunct instructors at these sites has proven to be very beneficial for both. Students have an opportunity to meet program graduates and learn of their post-graduate practice experiences and program graduates enjoy meeting new students and giving back to the program.

Opportunities of Blended Skills Lab Model Implementation

Despite the challenges experienced implementing the blended skills lab, several opportunities with model implementation were identified. The ability to integrate both modes of learning, asynchronous and synchronous, often enhances the online learning experience (Farrel et al., 2018) for students. Integrating both modes of learning in the blended skills lab model allowed the expansion of the Program to a national audience. Another opportunity of the blended skills lab model is the engagement of program graduates. A final opportunity of the blended skills lab model was the introduction of new technology to faculty and students. These tools can be used in practice settings for meetings and assist students in other courses with group assignments.

Implications and Conclusions

A blended skills lab model approach presents a unique opportunity to use technology that allows students to engage in these kinds of practice opportunities. A blended skills lab model uses technology to support the development of student practice skills in an online

environment. As the number of programs offering distance programs continues to expand, more consideration to blended or hybrid learning formats for practice course delivery is suggested. A blended skills lab model takes full advantage of the benefits of each platform--online and face-to-face--in order to provide an educational opportunity that can promote student learning better than either platform alone.

Further research should be conducted on this blended skills lab approach for teaching distance students. A study that compares student outcomes in a fully face-to-face skills lab versus participants in a blended skills lab model could yield useful information. Special consideration should be given to how to effectively train faculty members and students to implement this model across multiple practice courses and multiple course sections.

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