

Designing for Success: Instructional Design to Support Online Instruction in Agricultural Education

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Introduction

The popularity of distance education continues to grow. Research indicates an increase in both the number of college courses being delivered and the number of students enrolling in online offerings (Allen & Seaman, 2017; National Center for Educational Statistics, 2022). The online learning environment can be both convenient and challenging to learners. Participants of online learning courses described that the design of a course, familiarity with online technologies, and time management are helpful when participating in an online learning environment. Students reported the design of a course contributed the most to a successful online learning experience (Song et al., 2004). Participants of online learning courses also noted that a lack of community, difficulty understanding instructional goals, and technical problems were among the challenges of participating in an online environment. From these various challenges, participants identified that the biggest challenge is being prepared for and troubleshooting technical problems (Song et al., 2004).

NC State University offers numerous online opportunities, from individual courses to entire online degree programs at both the undergraduate and graduate level. To provide high-quality and innovative learning experiences when completing online courses, faculty at NC State have the opportunity to participate in the Course Quality Program. Through this program, faculty members can pursue “professional development, instructional consultations, resources, course and program reviews, and pathways to recognition and certification of high-quality online courses and programs” (NC State University, 2022). One specific certification is offered through Quality Matters (QM). Quality Matters is a global organization that strives to support faculty in the development and delivery of quality online education. QM has established guidelines and recommendations to encourage continual review and improvement of distance education courses and the opportunity to validate the quality of courses through participation in a rigorous peer review process (Quality Matters, 2022).

As members of the Agricultural Education faculty have participated in the Course Quality Program, numerous ideas and suggestions have been shared and implemented to improve online courses. Specifically, two innovative ideas will be highlighted, which can benefit any online courses whether pursuing Quality Matters certification or not.

How it Works

Innovative Idea One - Development of a Course Map

In any course, it is helpful for students to understand the alignment between how module objectives, instructional materials and learning activities, and assessments all align to support course objectives. In order to illustrate these connections, course maps were developed and included in the introduction of the course to help students better recognize the overall goals of the course and how the learning activities and assessments relate to objectives. Additionally, the creation of the course map has been helpful in providing a more thorough explanation of each module and assessment and structuring the learning management system.

Innovative Idea Two - Development of Detailed Assessments and Discussion Forums

Assignments and discussion forums, especially in asynchronous distance education courses, may not always provide explicit instructions and lack clarity of the connection to the module and course objectives. In response, assessments were updated to include the specific module objectives met by completion of the assignment. Additionally, the contribution of each assignment to the overall course grade was added, as well as a reminder of the grading rubric or guide and how feedback would be provided. The same information was added to discussion forums, along with criteria to help structure forum posts and feedback. The indicator for activity completion was also set up in the learning management system.

Results to Date

To date, three Agricultural Education faculty members have participated or are currently participating in online course improvement efforts. Course maps have been developed and implemented in one undergraduate and three graduate courses. The assessments and discussion forums have been updated in two graduate courses. The development of a course map is in progress for an additional undergraduate course and the assessments and discussion forums are currently under review in two undergraduate and one graduate courses. Two courses have received QM certification.

Future Plans

The efforts to update and improve the distance education course offerings are ongoing. Program faculty intend to make similar revisions to the two remaining distance education courses offered for agriculture teacher preparation at the undergraduate level and also the three remaining courses required as part of the alternative licensure program. Ultimately, the goal is to have all of these courses QM certified.

Costs/Resources Needed

The creation of course maps and the update of assessments and discussion forums require an investment in faculty time. Also, to submit a course for QM review, the cost is \$1300. Fortunately, NC State provides one-on-one support from their instructional design team, a stipend to support faculty time, and covers the cost for the QM course review.

References

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