

Student Motivation and Learning Preferences in an Interdisciplinary Online Master's Degree

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Background

- Master of Science in Agricultural and Life Sciences
 - First class in 2007 with 35 enrolled
- Completely online degree
- 30 credit hours
- Four areas of concentration
 - Biosecurity, bioregulations, and public health
 - Agricultural education
 - Plant science and pest management
 - Environmental science
 - Food safety

Purpose

1. Describe the perceptions and experiences of program graduates and their motivation to persist through the program.
2. Make recommendations to improve or enhance online degree programs in CALS.

Research Design

Case study methodology

- Developed interview guide
- Utilizing individual telephone interviews
- Purposively selected sample (n=10)
- Data collection
 - Interviews were audio recorded
 - Transcription memos were taken to assist with coding
 - Data was transcribed using Express Scribe© software
- Data Analysis
 - Constant comparison analysis
 - In vivo, focused and axial coding methodology
 - Atlas.ti© coding software

Results

Five themes emerged during data analysis:

1. Technology
2. Instructional design
3. Coursework
4. Teaching and learning
5. Student support

Motivation and self-regulation are two key aspects that drive students to complete the program and persist with the course work.

Demographics

- Majority of respondents were working professionals in agricultural or life science industries.
- 3 of 10 respondents were required to obtain a master's degree as a condition of their employment.
- A majority of the participants learned about the online degree program from their supervisor or professional association .
- Follow-up research was conducted via the internet.

Demographics

Recommendations for Practice:

1. Online programs should develop a marketing plan that includes a robust online presence.
2. Targeted information to industry groups and professional associations.
3. Positive experiences of students should be shared via testimonial videos and published in-print.

Technology

- Majority of participants felt intimidated by the technology because of limited experience with computers and online educational delivery systems.
- Technology and online delivery provides working professionals with the flexibility needed to earn a degree with a career-relevant area of specialization.
- The ability to complete coursework at their convenience allows for the successful balance of work and family obligations.

Technology

Recommendations for Practice:

1. Online delivery should be highlighted when marketing the program to prospective students.
2. Develop tutorials for the technology that will be utilized in the program.
3. Provide an orientation session for new online graduate students.

Instructional Design

- Students preferred to be taught as if they were in a traditional classroom.
- Courses that incorporated multiple instructional modalities were often considered the most valuable to graduates.
- Courses that included a mix of synchronous and asynchronous instruction were perceived as the highest quality.

Instructional Design

Recommendations for Practice:

1. Synchronous and asynchronous delivery methods should be utilized to accommodate the various learning styles of students.
2. Technical assistance in course development and assistance with the transition to teaching online should be provided for faculty.
3. Utilize blog and forum posts to facilitate student interaction.

Coursework

- Coursework that was relevant to the individual's career or aspirations was seen as most beneficial.
- Instructors who augmented course reading with additional insight through personal stories, current events or additional materials improved the educational experience of students.

Recommendation for Practice:

1. Review course materials periodically in order to remain relevant and responsive to the needs of learners and the industry.

Teaching and Learning

- The ability of the faculty member to design experiences that promote faculty-to-student and student-to-student engagement heavily influenced the satisfaction of program graduates.
- Practices that provided feedback were seen as positive and were perceived by students to improve performance.

Recommendation for Practice:

1. Implement multiple instructional methodologies and feedback loops to enhance student experience and improve perception of the program.

Student Support

- Respondents reported difficulty finding an accurate timeline of course offerings.
- An open line of communication with faculty members was reported as a key measure of satisfaction by students.
- The fact that there was not written guidelines for the final project was a source of frustration for some students.

Student Support

Recommendations for Practice:

1. Faculty should communicate their preferred method of communication with students enrolled in online courses.
2. Provided students with an opportunity to meet with instructor to address questions and facilitate an open line of communication with faculty.
3. Develop an accurate timeline of courses and written guidelines for final projects.

Take home message

- Student interaction with faculty members is the most influential experience that informs a student's regard for the program and their degree.
- Student satisfaction plays an important role in program persistence.
- Students who are satisfied with the program delivery method are more likely to persist in online programs.
- Quality of the interactions with faculty and other students has also been found to influence persistence.
- Persistent students voiced satisfaction with the relevance of coursework to their individual needs.