Online Exams and Quizzes: Student assessment beyond the classroom walls

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The Spring - Fall semester of 2020 & Spring 2021 were significantly affected by the COVID-19 pandemic

Spring 2029: Transitioned to online-only instruction

By fall semester 2020, WSU developed plans for instruction deliver entirely online in most of the classes
• Alternative method of delivery of courses (online)
• Unpreparedness
• Training options sponsored by universities
• Self learning (Youtube videos, etc.)
• Technology adoption and technological literacy
  • Panopto, Blackboard, CANVAS, Camtasia, Google meets, Zoom, etc
• Re-organize courses (face to face) to online delivery for a portion of spring and fall 2020 semester and Spring 2021
• Redesign and reorganization of course/topics for a “fully” remote experience

Online teaching and learning

Concerns about the quality of educational instruction provided remotely

Integrity and Academic conduct

- Reorganization of course content
  - Change what we did in the classroom/labs to an online environment
  - Redesigning student evaluation methods
  - Exams and Quizzes
  - Assignments

Online teaching: Student-centered approach using active learning methods
Main responsibility of learning at the hands of the students
Working at their own

- Challenges (internet access, connectivity)
  - Life challenges
  - Work and other related duties

- Student accountability
- Self-directed learning
- Discipline
- Engagement and motivation
Learning and assessment

Assessments should be design to drive our students towards learning (motivate, engage and participation)

Learning:
Acquisition of skills
Change in knowledge/behavior

Instructors:
Student evaluations
Assessments

When responses are aligned with generating stable changes in knowledge or behavior, then assessment drives learning.

Feedback
Student Response

Exams and quizzes: My approach

• AS 240 Anatomy and Physiology of Domestic Animals
• AS 350 Physiology of Reproduction
• Use of textbook
• At the end of every chapter, students created a 1 page (front and back book summary)
• Created open-book exams and quizzes
  • Students have access to the book summaries or other materials that they created.
• Short answers and multiple-choice.
• Questions that are not easy to search for an online answer.
• Students submit graphs or drawings by taking pictures of hand drawn images
Endocrine Regulation of Puberty

Metabolic stress of the animal
Leptin
Ghrelin
Gh
Ghrh - SAKRI
Depression of GH synthesis
Endocrine control of the SNS and Tonic center
GnRH
FSH/LH
SHBG
Hypothalamic - pituitary - gonadal (HPG) axis

Follicular growth
Estradiol +
Leading cells + Kallikrein +
Hypothalamus: control of the SNS + tonic centers

Growth curve in cattle

Ovarian + d - estradiol (E2)
Sequestration have been improved both in stimulating anteroposterior perivitelline vesicle nuclei size, protein expression, than the prepubertal period, it in regaining hence, less 1 expression until onset of puberty.
Exams and quizzes

• Logistics
  • CANVAS classical exams
  • Exams and quizzes 1:30 seconds / question
  • Randomized questions and answers

• Exams instructions:
  • Pay special attention to spelling, if you misspelled you answer you will NOT get credit
  • Once you start the exam you must finish in one sitting.
  • The deadline to finish the exam is ~ 48 or 72 hours (depending on the complexity of the exam)
  • Students can ONLY use book summaries and charts
  • “Do not consult your classmates or any other source. I trust your code of honor, you are my colleague”
Some results: AS 350

Final Average grade:
Spring 2019 (n=107): 87.9 (B+)
Spring 2020 (n=109): 89.6 (B+)
Blue course evaluations:

Spring 2019

How much have you learned -- increased your skills and knowledge -- about the main subject/topics in this course?

A great deal (41) 85%
A fair amount (7) 15%
A little (0) 0%
Not much (0) 0%
[Total (48)]

Statistics
Response Count | Value
---|---
Mean | 3.9
Median | 4.0

Overall, this course has been...

too difficult (5) 10%
challenging, but manageable (43) 90%
not challenging (0) 0%
[Total (48)]

Statistics
Response Count | Value
---|---

Spring 2020

How much have you learned -- increased your skills and knowledge -- about the main subject/topics in this course?

A great deal (24) 83%
A fair amount (5) 17%
A little (0) 0%
Not much (0) 0%
[Total (29)]

Statistics
Response Count | Value
---|---
Mean | 3.8
Median | 4.0

Overall, this course has been...

too difficult (0) 0%
challenging, but manageable (28) 100%
not challenging (0) 0%
[Total (28)]

Statistics
Response Count | Value
---|---
My conclusions

• In summary, during the COVID-19 pandemic was/is very challenging for some courses to develop a sense of student engagement and learning

• Despite this, some approaches can be implemented to still provide meaningful experiences to undergraduate students
  • Assignments: We need to be careful with the a good balance

• Support learning and engagement in the animal science curricula.