

USING WEEKLY
WRITTEN DISCUSSIONS
AND REFLECTIONS TO
PROMOTE SELF-
DIRECTED LEARNING IN
A LARGE-ENROLLMENT
ONLINE GEN ED STEM
COURSE

Alissa Cox

Natural Resource Conservation (NRS 100;
A1 STEM GenEd)

143 students (F2020)

Taught 100% Online (mostly asynchronous)

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THE
UNIVERSITY
OF RHODE ISLAND

Replaced Quizzes & Exams for
large lecture intro/survey course
with writing prompts

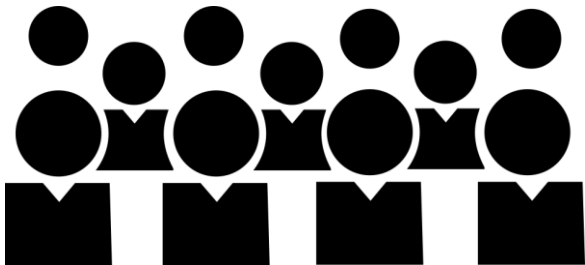
- **weekly open-ended discussion prompts** based on weekly topics & freeform **responses / structured peer feedback**
- **ID prior knowledge & Qs of interest** before learning each topic, then **reflected on learning** for each topic over semester



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Challenged students to demonstrate learning with open-ended writing prompts (NO Exams)

BACKGROUND



Learning = social; most effective when relevant & students have agency

- “Survey” course – ~10 topics in 14 weeks
 - Emphasis on connection & application & peer learning
 - Incoming knowledge & motivation = variable
 - Goal: student self-discovery, build communication skills & critical thinking
- 143 students broken up into 9 groups of ~15 students
 - Each group had own discussion board
 - Each group met weekly for 20 mins on Zoom

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Allow students to apply course content & learn from each other; self-directed learning in course based on incoming knowledge & interests

COURSE SETUP



KWL CHART

What I <u>K</u> now	What I <u>W</u> ant to Know	What I <u>L</u> earned

Weekly discussion board posts

- Apply info from videos & reading (+ guided notes) to open-ended prompts
 - Create summaries / infographics / recorded presentations of key concepts for specific audience
 - Suggest a policy proposal to certain audience
 - Analyze a case study & make connection to self / related topic / society
 - Create a “Guided Tour” (map + stops) & tie in course content
 - Peer-review (with GDoc Rubric) or respond each week to others

Running KWL Chart + Reflections

- Know – Want to know – Learned – 1 row per topic
 - Start in week 1, revisit every 5 weeks, “Final”
 - Reflection questions – self-discovery, learning, metacognition

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IDEA feedback indicates that reflection & applied writing discussion prompts were effective

IMPACT



116/143 responded (83%)



Reflective & Integrative Learning = success

- Encouraged students to reflect on and evaluate what they have learned – **93% rated @ 4 or 5**
- Related course material to real life situations – **93% rated @ 4 or 5**

Relevant Course Objectives = success

- Learning how to find, evaluate, and use resources to explore a topic in depth – **83% rated @ 4 or 5** (Institutional 55%ile)
- Learning to apply course material (to improve thinking, problem solving, and decisions) – **77% rated @ 4 or 5** (Institutional 65%ile)
- Developing skill in expressing myself orally or in writing – **57% rated @ 4 or 5** (Institutional 61%ile)

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Students reported that weekly applied discussions helped them learn the material & they enjoyed reading classmates' views & feedback; KWL chart was useful

DISCUSSION



Q: What teaching strategy worked well? (90 responses)

- 53 = discussions; 28 = course layout, 2 = KWL

Q: Most effective assignment? (87 responses)

- 27 = specific discussion; 23 = discussions (general), 20 = KWL

“One of the few classes I can think, oh, I have that due but it isn't a feeling of existential dread because I usually always end up enjoying doing the assignment.”

“I actually looked forward to most of the assignments because they were different compared to my regular work.”

“I liked being able to interact with my peers on the discussion post because I believe working with others and reading others' ideas helps improve my learning.”

“I found the engaging project-like discussion posts (writing a letter to a representative, making infographics, etc) the most impactful. They forced me to apply my knowledge instead of just memorizing material.”

“The KWL chart was the most effective because it made me think about how what the course had taught me personally, and continually filling it out helped to show me how much I was learning.”

“I found the discussion posts most effective as it was something to do weekly and I was able to learn off of my classmates as well. They were usually pretty open ended, so you could choose what to do that is most interesting to you.”

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Links to some Course Materials – email me if you want to discuss more!

Extras



I'd love to hear from you –
feedback, suggestions, things YOU
do that work well!

[Week 1](#) & [Final KWL Chart](#) templates (with reflection Qs)

[Collated List of Discussion Prompts](#)

- Note Weeks 3, 7, 10 & 14 were particular hits
- [Example Peer Review Rubric](#)

Note: I also used a type of Specifications Grading: writing assignments & peer responses were either Satisfactory or Unsatisfactory (unlimited resubmissions allowed), which made this very manageable. See [syllabus](#) for more info.

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THANK YOU!