

# Developing Innovative Student Projects for Comprehensive Review of Course Content

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# Setting the Stage

- From its founding in 1897, Southern Utah University has evolved from a teacher training institution to now becoming Utah's designated liberal arts and sciences university. SUU has always placed students first by fostering small, personalized classes led by supportive professors who are some of the nation's top scholars in their fields of study.
- Experiential Education (as in “to experience something” outside the classroom) is a process that gives SUU students an “edge” in applying their learning beyond the classroom. Education Designated to Give Experience – 3 credit hour requirement within the General Education.
- Agriculture program provides 3 courses that meet General Education Life Science requirements.
- NR 1010 required as a core course for the Outdoor Recreation in Parks and Tourism Degree, as well as part of the OPM 454 series for agency jobs.

# Rational

- Course fulfills Life Science requirement for University General Education, attracts majors from across campus.
  - General Education (GE) Essential Learning Outcomes (ELO) for life science courses:
    1. Critical thinking- Students demonstrate disciplined processes of activity and skillfully conceptualizing, applying, analyzing, synthesizing, and /or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.
    2. Problem solving- Students design, evaluate, and implement strategies to answer open-ended questions or achieve a desired goal.
    3. Teamwork- Students demonstrate productive interaction with others (in or out of class) to complete assignments.
- Needed to increase students reasonability to learn course material.
- Needed to maintain or increase academic rigor.
- Needed to supplement text book with different learning activities.
- Needed to take advantage of surrounding resources (Mighty Five National Parks).

# Methods

- Created a group assignment that would make students responsible for exam material (fulfilled teamwork ELO).
  - Board game had to fit in a large pizza box.
  - Had to comprise of true false or multiple choice questions.
  - Was peer evaluated and played during class time to review for final exam.
  - Questions had to be sent electronically to instructor in word doc.
- Created an assignment that required students to develop a brochure about a self guided field trip that related to course content (fulfilled critical thinking ELO).
  - Brochure had to be tri-fold, in color and contain a selfie.
  - Had to be printed on one page.
  - Had to be influential and educational.
  - Had to discuss the five major topics of the course (soil, water, rangeland, timber, wildlife).

# Data Collection

- Compared final grades across semesters
  - Looked at student performance in terms of final grade before projects were developed and compared them to final grades after the implementation of projects into the course.
- Course evaluations
  - Looked at IDEA rating for the course before projects were developed and compared them to after the implementation of projects into the course.
- Survey
  - Conducted a survey asking students to evaluate the board game activity after they had completed the final exam.
- Student comments
  - Comments made on the survey as well as on the course evaluation form.

# Results

| Evaluation Criteria                                    | Before | After |
|--|--------|-------|
| Final grade performance                                | 83.8 % | 86.3% |
| Course evaluation raw score                            | 3.6    | 4.1   |
| Survey of board game 1-5, 1 not at all, 5 a great deal |        |       |
| 1. How much did you enjoy the assignment?              |        | 3.68  |
| 2. How well did it prepare you for the final exam?     |        | 3.58  |
| 3. Was it an effective group project?                  |        | 3.35  |

## Student Comments:

Coming up with the questions was a better review than playing the games.

Different, I think it made review more fun.

I do not like group work.

It kind of felt like busy work.

Not enough time to play all of the games and many of the questions weren't in the same format as the test.

# Summary and Conclusions

- Provided opportunity for students to work together as a team (ELO).
- Provided opportunity for students to study for final exam.
- Provided opportunity for students with different learning styles to excel.
- Made students responsible for learning course material.
- Created opportunity for students to use interdisciplinary skills (art, computer, and writing).
- Made a fair and comprehensive exam.
- Made students get outdoors (The Outdoor Nation On Campus Challenge declared SUU as 2015-2016 National Champion).
- Made students think critically when evaluating games (ELO).
- Students like activity based learning no matter their age.

# Questions ?

“ Even if you are on the right track, you will get run over if you just sit there.”  
- Will Rogers

