

TITLE: How does giving students a choice in assignments affect student course completion and retention rates?

NAME OF RESEARCHER : R. Elaine Germain

CONTACT: germain@siast.sk.ca

ORGANIZATION: Institute of Applied Science and Technology, Wascana Centre
Adult Basic Education

QUESTION POSED: If the work load for students struggling at the three week point in a ten week program is altered by offering them a choice of assignments (with a corresponding increasing or decreasing of mark potential guided by difficulty level), then will there will be a greater chance of more students successfully completing Biology 30?

As Elaine explains it:

“My Biology 30 adult students typically enter the class with enthusiasm and high expectations of successful completion. However, once the work load starts to increase and evaluations are not as high as expected, enthusiasm wanes and many students drop out having not successfully completed the course. My “hunch” for this study was to try offering a choice of assignment at the point when the course history indicated that most struggling students start dropping out. I wanted to determine if having this assignment choice would make a difference and increase both the rate of student retention and ultimate their success.”

OUTCOMES: I had hoped to see a 10% retention increase in successful completion with this project but was pleased to see the completion rate go from 81.5% to 95%--an increase of 13.5%. Furthermore, I was pleased to see how well the students responded to the idea of having assignment choices. I was actually surprised to find that some who were heading to post-secondary studies did not choose the assignments with the highest grades assigned; rather, they chose the ones that interested them most. This replaced fear with fun at the most critical point of the course. Students who were struggling felt okay, not embarrassed, about choosing simpler assignments and more went on to complete the class.

I have now made this “choices approach” a standard part of my Biology 30 course.

ABSTRACT: Included in this research study were the 21 students enrolled in my Basic Education Biology 30 at SIAST. I conducted the study from February 2009 to April 2009. After three weeks in the class and after at least three evaluations—the point where drop out often

begins—the students were offered a number of choices of various assignments and projects for the remainder of the class with varying mark potentials. This was my “intervention” based on my best hunch for success, with input from colleagues from the RiP workshop I attended. Certain assignments would be more difficult than others, the more difficult ones would have differing evaluation criteria and, correspondingly, those more difficult assignments would be worth more marks. In other words, if a student wanted a somewhat easier assignment at this critical stage of the course, that student could choose an easier assignment knowing there were fewer marks possible for that assignment, and that the assignment would be evaluated differently from other, more difficult, assignments. No one was forced to take what might appear to them to be the hardest assignment and, perhaps, drop out of the course as a result.

At the end of the class, I would compare retention (successful completion) with the retention baseline I calculated from the completions in the same ten week biology 30 class year-over-year for the past five years. Specifically, “successful completion” would be measured by dividing the number of students that passed the course by the number registered at the three week point in the course. Would retention and course completion increase beyond the baseline?

RESEARCH: I did some literature research, and from the *Journal of Instructional Psychology*, March, 2008, I found an article by Dmitriy Chulkov who conducted a study over six semesters with adult students in Economics classes. It was found that male and non-traditional students are more likely to have higher performance on multiple choice questions and students whose major field of study is related to the course are more likely to do better on essay questions. This would imply that utilizing a combination of assessment instruments may be recommended. This supports my study where students were able to choose both assignments and evaluation instruments which would best match their skill set.

Another study regarding attrition and completion percentages conducted by *Prabir Kumar Biswas and G. Mythili from the Indira Gandhi National Open University 1994-2000* suggested that variety in assessment tools could increase interest and ultimately increase success in their programs. These studies encouraged me to try my “intervention” using assignment choice and corresponding evaluation.

PROCESS: In order to have a comparison point, a baseline was established by totaling the number of students enrolled at three weeks in each of the biology 30 classes offered from November 2003 to January 2009 and dividing that by the number of successful completions. $220 \div 270 \times 100 = 81.5\%$ completion (and 18.5% non-completion).

At the beginning of the class, to get the needed permissions, the students were made aware of the fact that they would be asked to be involved in a project and knew that they could choose to not participate if they wished. Any resulting data from them would not be published in my final report and they were ensured that their names would not be used. All students agreed verbally to be part of the study.

At three weeks, after the midterm and two quizzes, the students were handed a list of the remaining evaluations and assignments for the course. Only the final exam, a quiz and one assignment were compulsory in the course. Of the remaining ten assignments, the students were to choose five with potential marks ranging from three to five marks per assignment based on difficulty level with the more difficult assignments worth more and the less difficult worth less. Due dates also accompanied the assignments. After the choices were made, I made a copy for myself and the original was returned to the student. They were allowed to change their choices provided it was an assignment that was not yet marked and returned to others in the class.

At the end of the term, the various optional assignment marks were tallied and the

[successful completions \div enrollment at three weeks \times 100 = successful completion ratio].

FINDINGS:

20 successful completions \div 21 students enrolled = 95% successful completion ratio. An increase of 13.5% [and non-completion was now at 5%].

The students were asked to complete an evaluation of the study project when it was completed. A summary of their responses to the questions posed are given below:

1) How did you feel when the project(choosing which of the last 12 assignments you wished to do) was announced?

The responses were as follows with the number following the response indicating the number of students making a similar comment.

- Heavy work load (5)
- Not enough time to do the assignments (1)
- Okay (1)
- Worried about picking the wrong one, not sure if I would understand what to do (1)
- Confident and relaxed (1)
- Happy to be able to have a choice (8)
- Found it difficult to know exactly what each assignment was before we chose (2)
- Glad I was able to make up missed assignments (3)
- Relieved that I didn't have quite so much to do (1)
- Felt it would be better to do all of the assignments (1)

2) What criteria helped you decide which assignment you wished to do? Rank the following with **one being your most prominent criteria (highest) and 5 being your least reason for your choices (lowest):**

- 33 *How interesting it appeared to be*
- 34 *Marks the assignment was worth*
- 37 *The assignment matched my skills – things that I am good at*
- 61 *How long it would take me to do the assignment*
- 65 *My friends were doing that assignment*
- // *Other*

3) Now that you have completed the work, how do you feel about the project?

- *Shortage of time was an issue (5)*
- *Lots of knowledge and exposure (1)*
- *It was good to have choices (4)*
- *I will get a better mark because of it (1)*
- *Good learning experience (4)*
- *Wish I could have chosen more worth more marks (1)*
- *Good because the assignments I was unsure of I didn't have to choose (1)*
- *Fun(2)*
- *I like math so it was much easier (2)*

REFLECTION

All students were enthusiastic about the project. They requested a complete copy of all the assignments instead of just a brief description before they made their choices. I had assumed that students who required a certain average for further postsecondary studies would have chosen the more difficult assignments which had a higher assessed value but some assignments were chosen because they thought they would be fun. This worked out better than I thought since students who were struggling felt okay about choosing simpler assignments.

MY SUGGESTIONS FOR FUTURE RESEARCH:

My suggestion for the future would be for other instructors to try assignment choice like this to see if it replicates what I have tried here. It could be applied at any level in virtually any course. But who would choose what types of assignments? Why would they make their choices? How far can one go with choice without compromising the integrity of the course standards? And, above all, would assignment choice continue to improve retention?