

Peer Learning Facilitators for Exercise Physiology

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What is the Innovation I Implemented?

Why Did I Implement This Innovation?

Inspiration

- ◆ This project originally began as part of a large Title V Grant project on campus. The purpose was to improve student success in traditionally difficult courses. The project has continued two additional years with Campus Quality Fee Funding.
- ◆ KIN 346: Exercise Physiology has been identified by CSUN as course with high DUF rates.

Mission/Goals

- ◆ The purpose of this project was to help students **learn** exercise physiology and **reduce the DUF rate** in KIN 346.
- ◆ A secondary purpose was to provide **peer mentoring** and create a **learning community** within the department.
- ◆ A third purpose was to make the **learning experience** in exercise physiology more positive.
- ◆ This project has the potential to benefit both the learning of the students taking the exercise physiology courses AND the students serving as peer learning facilitators (PLFs).

Closing the Achievement Gap

- ◆ The PLF program provides resources that students can use to help them learn exercise physiology and subsequently improve student success.

Theory/Evidence/Research

- ◆ Physiology is universally considered a difficult course for many students and this has been well-documented in the literature.
- ◆ Peer teaching has been shown to improve the success of students in both roles and students have reported enjoying peer teaching.

Who?

- ◆ PLF Coordinator
 - One faculty member within the Kinesiology Department
- ◆ PLFs
 - Senior or graduate level Kinesiology students
 - Students were recommended and/or recruited and subsequently applied and interviewed
 - One PLF was assigned to each section of KIN 346
- ◆ Instructors
 - Instructors who teach KIN 346
 - Participation is voluntary
- ◆ Students
 - Students enrolled in KIN 346

What?

- ◆ PLF Coordinator
 - Recruit, interview, hire
 - PLF training
 - Resource for PLFs & instructors
 - Measure and monitor usage and other success markers
 - Create schedule and other administrative duties
- ◆ PLFs
 - Attend lecture
 - Weekly: 3 workshops, 3 office hours, 3 tutor-by-appointment hours, 3 workshop prep/recordkeeping hours
- ◆ Instructors
 - Encourage students to use PLF resources
 - Mentor PLF assigned to their class

How?

- ◆ Supplemental Instruction (SI)
 - As a requirement for the course, students must choose between two SI assignment options worth 10% of their final grade.
 - SI option 1: Attend at least 11 PLF workshops during the semester
 - SI option 2: Complete workbook questions for each of 10 chapters
 - 66% of the students chose the PLF option
 - 100% of the students who did not attend PLF workshops attributed it to a day/time conflict
- ◆ PLF workshops
 - Three day/time options each week
 - 50 minute sessions
 - Interactive, student-centered activities

How Could This Impact More CSUN Students?

- ◆ This project is funded year by year with Campus Quality fees. Therefore funding could end at any time.
- ◆ A long term option would be to create formal discussion sections that could be funded and sustained through tuition.
 - But would this eliminate the ability for undergraduate students to serve as PLFs?
- ◆ Another option would be to offer PLF sessions through the Learning Resource Center (LRC) in the Oviatt.
 - But this would reduce the scale and convenience of the program.

Future Partners

- ◆ CSUN Learning Resource Center
- ◆ Other science departments on campus

Summary

- ◆ Based on student perceptions, they are **learning more** and getting **better grades** than they would without the PLF program.
- ◆ Based on student perceptions, they are **having very positive learning experiences**.
- ◆ The **DUF rate** went down initially, but has risen over the last 2 semesters. It is unclear what has led to this change and what, if anything, this indicates about the PLF program.
 - Are the students different?
- ◆ The PLF program has resulted in many **peer mentoring** interactions, as evidenced by office visit and one-on-one appointment usage records. Fall 2015 data:
 - 7 KIN 346 sections, 308 students total
 - 583 office visits
 - 81 one-on-one appointments
 - 37% report visiting PLF "regularly" or "often", but only 13% report visiting instructor "regularly" or "often"
- ◆ The PLF program has resulted in a large **learning community** of students who gather daily in a designated location.

What Impact Does the Innovation Have on the Achievement Gap at CSUN?

Real Student Impact

(From Spring 14/Fall 15)

- ◆ "[The PLF] made the course fun and easy to learn."
- ◆ "The PLF workshops are a must for this course. It is worth going to and without it I'd be lost."
- ◆ "PLF workshops were the single most helpful way to review material, I would not have passed this class without them."
- ◆ "PLF was a great experience, much needed for success in class."
- ◆ "The PLF was my favorite part of this class."
- ◆ "The PLF sessions were amazingly helpful."
- ◆ "PLF really saved me this semester."
- ◆ "Having a smaller group to help get through tough concepts together really helped my understanding of the course material."
- ◆ "The PLF workshops were very beneficial in learning the material in the course."
- ◆ "Having the PLF help me one on one and continued to motivate me and that led me to push through the class despite outside distractions."

Markers of Positive Impact

Fall 2015: A survey was administered that asked students to rank their answers on a Likert scale from 1-5, with 5 representing "very true" and 1 representing "not true at all".

- ◆ "I enjoyed the workshops."
 - 96.3% responded with a 4 or 5
- ◆ "I put a lot of effort into paying attention at the workshops."
 - 92.6% responded with a 4 or 5
- ◆ "If I could start the semester over, I would pay more attention during, or attend more of the workshops."
 - 85.2% responded with a 4 or 5
- ◆ "If I could start the semester over, I would pay less attention during, or attend less of the workshops."
 - 92.6% responded with a 1 or 2
- ◆ "Attending the workshops helped me to learn the course material."
 - 92.6% responded with a 4 or 5
- ◆ "Attending the workshops helped me to get a better grade in the course."
 - 88.9% responded with a 4 or 5

Markers of Positive Impact

- ◆ Fall 2015: Out of 37 students in one section, 5 were retaking the course due to a previous D or F.
 - 4 reported that they were doing better this time
 - When asked why they thought they were doing better, 3 of the 4 attributed it to the PLF program
- ◆ The PLF program was first implemented in the spring of 2011. Using baseline data from the fall of 2010 (pre-PLF) compared to the fall of 2014:
 - %DUF dropped from 27 to 12%
 - %F dropped from 12 to 1%
 - %AB rose from 51 to 66%
- ◆ However after the fall of 2014, the grade data took a negative turn, but are still slightly better than baseline.
 - %DUF averaged 26%
 - %F averaged 10%
 - %AB averaged 49%
 - SI assignment was reduced from 15 to 10% of their grade, but was that enough to cause such a drastic change?
 - Student perceptions and affective measures remained very positive.
 - Are the students different?