First in the World Campus Board Meeting 12/18/2020 – Minutes

Meeting Information

Date: December 18, 2020

Time: 10:00am – 11:30am

Location: Online

Attendees: Laura Sullivan-Green, Sheryl Ehrman, Nicole Okamoto, Cassandra Paul, Michael Kaufman, Ron Yeung, Craig LaMunyon, Emily Allen, Patricia Backer, Alison Baski, Jane Dong, Nancy McQueen, Shandy Hauk, Tyler Stannard

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1. Welcome and Introductions

2. General Grant Status Update

a. Budget Update

- The original grant proposal for $3 million exactly
    - Closing out the books, on 9/30/20, the project was only provided $2,970,135.21 to cover all expenses.
    - Due to remaining expenses, SJSU Research Foundations will be covering up the remaining invoices.
- Total project spending of $2,995,233.15
- Most of the funds were related to personnel, core faculty, project management, participant costs, mini-grants, FLCs, and external evaluator.
- Spent all we could. Had more plans to spend more on travel, however due to COVID, travel and disseminations were cancelled, shrinking the budget.
- In Summer 2020, the three FLCs from each campus were awarded a $2000 honorarium for their efforts as dissemination moved to online. Thanks to their efforts, we have collected all developed flipped materials from each participating campus.

b. Final Year Status Report

- The final year focus on evaluation and dissemination in addition to finalizing the FITW website.
- Workshop materials, developed lesson plans, publications, and meeting minutes are available on the FITW website.
    - The richer developed flipped materials, such as materials developed by core faculty and mini-grant faculty, will be available upon request through the website.
- As a part of our dissemination goals, we were successful on hosting two major conferences, one for NorCal and one for SoCal.
    - The final outreach dissemination event of the project was the SoCal Poly Tech conference, hosted by CPP. Very successful, and luckily able to go on right before the shelter in place order in March.

    - In 2019, the NorCal conference was hosted at SJSU, sponsored by the FITW grant.
    - Over 400 attendees across both NorCal and SoCal conferences.
- Over the grant project, we supported 13 summer campus workshops. (Not including workshops from the outreach conferences and other events).
    - The grant trained 204 faculty that completed workshop, 108 were STEM faculty.
    - Last year 4 workshops opened up to non-stem faculty. Original goal of 100 trained faculty
    - From those 204 faculties, 21 were awarded additional support through mini-grant funding.
- Institutionalizing of the FITW project of flipped pedagogy and active learning culture has been integrated in each participating campus in different ways.
    - SJSU has integrated the flipped culture through inner-department infrastructure. Communication and connection between departments has been the process in which active learning is shared and taught between participating and interested faculty.
    - The network has expanded to many majors and departments due to the expansive reach of the flipped workshops.

3. Campus Status Reports

a. CPP

- Final organized event was to host the SoCal Conference. Which was one week before the campus paused due to the shelter in place orders.
- The culture has been great, with more interest in involvement of faculty across the STEM departments involved.
- Robin Wilson, a core faculty of the grant, is the coordinator for Calculus I. Which will be taught in a flipped method, impacting more than 900 students in the fall.

b. CSULA

- The last year of the grant proved quite successful at building strong flipping faculty community at LA.
- Since the COVID pandemic, the LA faculty that have participated in the grant have proven more success when moving to online learning when using the aspects of the FITW grant.
- Math faculty have been absorbing flipped pedagogy well in the light of remote learning.
- Engineering faculty have also been increasing their interest in the teaching and culture of active learning.
- The Engineering, Computer Science, and Technology (ECST) teaching center is a hub of sharing teaching practices including the flipped pedagogy from the FTIW grant.
- A group of faculty members, from the FITW grant, have been sharing their understanding and techniques at these centers for other faculty to use.
- The active learning approach provides opportunity for students to learn at different levels during the COVID pandemic.
- FITW grant made it possible to learn and approach other learning and teaching pedagogies and able to share these approaches with other faculty.

- In the Fall semester, more faculty are adopting the flipped model in remote teaching environment. Faculty identity how to engage the students during the remote learning. Engaging with students more this way.
- The institutionalizing had greatly impacted the LA campus and faculty communities.

4. Calculus Study Update

- Culminated evaluation of the flipped classroom in Calc I.
- The experiment was a success because the implementation was realized across multiple sites, multiple instructors, and hundreds of students, and supported a pass rate in flipped classes as strong as the rate in comparison classes while retaining more students in flipped classes.
- This is a good and valuable result. Common in efforts to change models of teaching is the "implementation dip" – when use of a new approach interferes with or reduces student learning.
- Though no test of differences in outcomes between flipped and comparison groups was statistically significant, there was a higher persistence rate in flipped classes (a lower proportion of students dropped flipped classes than dropped comparison classes).
- Though not statistically significant, for the entire analytic sample women had slightly higher grades, on average, in flipped classes than comparison classes, while men in flipped classes did the same as in comparison. The pass rates (proportion of students passing the course) varied by gender in different ways across colleges but were comparable across conditions (flipped and not).
- Though not statistically significant, students identified in institutional data as from URM groups had slightly lower grades, on average in both flipped and comparison classes. The pass rates by URM status varied in different ways across colleges but were comparable across conditions.
- Though not statistically significant, students identified in institutional data as eligible for Pell grants (an indicator of socio-economic constraint) had very slightly lower grades, on average, in flipped calculus classes and did about the same as non-eligible students in comparison classes. The pass rates by eligibility varied in different ways across colleges but were comparable across conditions.
- Students who remained in flipped classes ended the course with a level of calculus understanding comparable to those who remained in comparison classes. Yet, the drop rate in flipped classes was an average of 5.25 students per class (18%) while in comparison classes the rate was 6.4 students per class (22%). Though not statistically significant, the lower drop rate for flipped classes may be practically significant.
- Results of observation data analysis from 20 classroom visits (12 flipped, 8 comparison) suggest two things to notice about classroom practice.
    - First, the participation structures of a flipped approach clearly allowed for student-centered activity in the classroom.
    - Second, curricular materials used in the flipped implementation for this study may have been appropriate for cooperative learning in groups (i.e., individuals work together to achieve individual goals) but few were designed to support collaborative learning (i.e., individuals work together to achieve a group-defined goal).
- A second notable aspect in the classroom observations was the frequency with which instructors used what were, on the surface, the same materials in both flipped and not-flipped

classes (e.g., the same worksheets). However, the pre-class work and in-class dynamics for student interaction in flipped and not-flipped classes were different.

- A culture climate that was developing, more so in LA and CPP than SJSU. (Partially due to more faculty involved at those campuses).
- Advanced mathematics attempts and success rates, interesting comparison between flipped and comparison. 4 out of 10 students in flipped may attempt an advanced class, the pass rate is slightly higher compared to the 5 out of 10 in the comparison group. Showing that students in flipped are more cautious, yet pass at a higher rate in the advanced math classes.

5. Dissemination and Outreach

- Collected publications and developed flipped materials are hosted on the SJSU First in the World website. Several publications are in press, and once published will be linked to the website.

a. Presentations and Travel

- Due to COVID restrictions, all presentations and travel events in 2020 were cancelled.

b. FITW Website

- SJSU personnel will monitor the FITW website through a single email address.
- All developed flipped materials and publications are available on the FITW website. Some material requires a formal request.
- Flipped workshop materials, presentations, and instructions are listed to provide support and inspiration for future workshops.

6. Final Year Assessment

- The longevity data is hard to pull as the early comparison before the implementation of the 120 unit.
- The conversions of quarters and semester with both SoCal campuses made it difficult to compare longevity data.
- Retention and graduation data comparison also impacted with the affects of COVID to the academic performance.
- The goals relating to these comparisons were partially or completely met due to these of COVID and quarter to semester conversions.
- The main take away from the faculty survey is that there shows an increase of faculty that have tried or would like to try flipping. Less percentage of faculty saying they would not try.
- The indication of the project impacting the faculty communities at each campus is apparent and a promising future of flipped classroom, especially as education is moving remotely.

7. Adjournment