

SPARCT Year 1 - RESULTS

QUALITATIVE DATA – PARTICIPANTS

Horizontal and Vertical assessment via video interviews

Intervals

After SPARCT Summer Academy – Describe project (Late May)

Emerging Themes

- New respect for pedagogy
- Promise of active learning
- Teacher as facilitator
- Learning beyond an assignment
- More complete view of assessment

Before Classes start – Updates on project (Aug)

Summer was a time for

- Reading
- Reflection
- Refinement
- Redesign
- Experimentation

Mid-term – Gains from conducting observations (Oct)

End of Fall semester – How did project go? (Nov)

Reflection on what worked

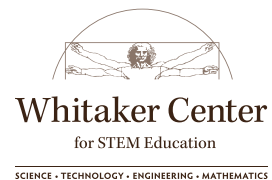
- Groups
- Evidence-based practices led to deeper learning
- Affective responses from participants regarding their student enthusiasm and relevance

End of Spring semester – What did you gain from SPARCT in terms of pedagogy and scholarship? (April)

Emerging Themes

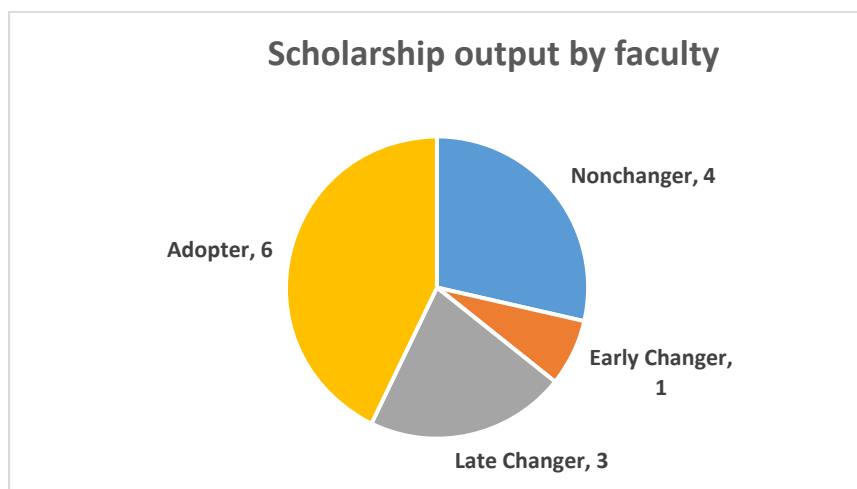
- Pedagogy-all participants integrated active learning, were more sensitive to the needs of their students, and became deeper reflectors.





Evidence-Based Practices	June reports on planned interventions	April reports actually used interventions
PBL	3	4
Elements of Flipped Classroom	4	4
POGIL	2	2
Projects	5	4
Role Playing	1	1
CCM	2	2
Discipline Relevant Assignments	4	3
Group Work including group problem solving & discussion	7	11
Peer Mentoring	2	2
Unique Hybrids	3	4
Portfolios	1	0

- Scholarship – ranged from none (nonchanger) to presentations/ publications (adopter).



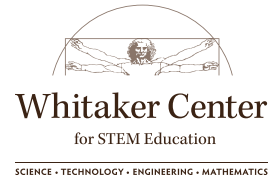
Changes in Year 2

Academy Journaling

One more video point before SPARCT summer academy– *Challenges, structure, motivation*



This material is based upon work supported by the National Science Foundation under DUE-WIDER Grant No. 1347640 to L. Frost



SPARCT Year 1 -RESULTS

QUANTITATIVE FEEDBACK: STUDENT– Fall 2014 data (13 STEM courses)

Student Interest and Confidence

Specifically, our results suggest that when students take a course taught by an instructor in the SPARCT program, students increased their interest (N=557) and confidence (N=554) $p < 0.005$ for both.

Retention of STEM Majors

Approximately 5% of STEM majors enrolled in the courses switched out of STEM during one semester N~280.

Limitations – some students may have taken the survey more than once, no data from non-SPARCT sections.

QUANTITATIVE FEEDBACK: PARTICIPANTS - post SPARCT Academy 2014

No significant gains in any area except for “I know how to flip my classroom” [from 3.41 ± 0.71 to 4.60 ± 0.51]

12/16 said summer academy met their expectations

Changes Year 2

Administer PIPS survey

Scholarship of Teaching and Learning (SoTL) Projects

Internal presentations: 3 (5 faculty)

External presentations: 5 (6 faculty), 3 have proceedings

