Professional Development for Faculty

Professional development for faculty has been a key initiative supported by the Title V grant, which has provided funds for many to receive On Course training and attend professional conferences to learn about more effective basic skills curriculum. This summer, Title V supported five faculty to attend the FELI (Faculty Experiential Learning Institute), a workshop of the Academy of College Excellence (ACE) to familiarize instructors with the affective realm of instruction. Below is an article written by Sondra Ricar (Political Science instructor) about her experience.

The Whip Around

The facilitators in the FELI frequently brought us back to our mission using “the whip around”, a phrase you must finish in one breath. Phrases like, “One thing people can’t tell about me by looking is…” or “When I get home tonight I will…” enabled us to create a learning community. My experience in the FELI is exemplified in the whip around, “If I could never fail…”

The statement encompassed a theme that ran through the FELI: we learn from mistakes. That reflected my world view, events that have shaped my life, my pedagogical philosophy, and the ending of that phrase. If I could never fail, I would never learn.

Looking back at my time in education, while I learned in classes where I did well, I learned more when I did poorly. Misreading instructions on an exam left me with a strong compulsion to read instructions repeatedly. Relying heavily on the grammar checker in Word has led me to become a stronger proofreader. Being set in my ways in the classroom has led to rethinking, sometimes in the middle of class.

Mistakes also result from misperceptions. Upon receiving the material for the FELI I believed the FELI was devoted to discovering ways to make exceptions for students while turning them into revolutionaries. These misperceptions were exploded on the first day when I saw signs displayed: “I will come to class every day.” “I will commit to school.” ACE was concerned with training the students to be responsible students who come to class with the skills necessary to complete college and compete in the marketplace. I learned social justice was not a new generation of “let’s admire Che” but issues such as domestic violence, child abuse, environmental issues, and a host of issues that I engage in my classes.

During the FELI I learned about the problems faced by groups from backgrounds similar and dissimilar to mine, about problems many of our students face that I had never considered, and I learned about problems that are perpetuated by people unwilling to look beyond their preconceptions. I learned about myself, my working style, my listening style and my ability to look at things in new ways. Finally, I re-learned the fact that if I never fail I will never learn.
Summer Math Intensive Review Gives Students Head Start

The 2013 Summer Bridge pilot for the fourth cohort of the STARS First Year Experience (FYE) initiative was a two-week intensive math review for students who placed into Math 254 at the top of the range (scoring 18-25) or at the bottom range of Math 154. At the end of the two week session led by math instructor Megan Caspers with student assistant Omar Monroy, the 23 students retook the assessment test with the goal of either placing higher in the math sequence or measuring progress made in skill improvement.

23 participants:
52% (12) female; 48% (11) male
78% (18) Latino; 22% (5) Multi-racial
Average age: 18.5 years old
100% (23) 2013 high school graduates
44% (10) grew up speaking Spanish
Target population: 18-25 score on Algebra Readiness placement test

After completing the two-week program, students increased an average of 8 points on the assessment test, from average scores of 22 to an average of 30. Of the 19 students who originally placed into Math 254, twelve (63%) advanced to the next level in the sequence. The four students who placed into the low level of math 154 increased an average of 10 points on the retest, indicating a stronger starting base.

Students also increased the accuracy of their answers by an average of 14-17 percentage points, not only indicating a higher level of knowledge but also improving the reliability of the assessment by answering only questions that they felt confident they could solve, rather than using random guesswork.

The four and a half hour daily program included classroom instruction and individualized computer lab time. An online program including class notes, homework sets, and instructional video lessons was utilized in the lab and could also be accessed outside of class. Several students commented that the online resource was “really helpful because (the lessons) allowed me to work on it at home” and several others felt that it was “a well thought out fast-paced format that (they) thoroughly enjoyed.” Many students asked us to “please keep this program going” and felt “more confident about math” going into the fall semester.

<table>
<thead>
<tr>
<th>Initial Placement Level</th>
<th>Cohort Size</th>
<th>Initial Avg. Score</th>
<th>Post Avg. Score</th>
<th>Increased math level</th>
<th>Initial Avg. Accuracy</th>
<th>Post Avg. Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math-254</td>
<td>19</td>
<td>22</td>
<td>30</td>
<td>63% (12)</td>
<td>50%</td>
<td>64%</td>
</tr>
<tr>
<td>Math-154</td>
<td>4</td>
<td>29</td>
<td>39</td>
<td>n/a</td>
<td>60%</td>
<td>77%</td>
</tr>
</tbody>
</table>

Update on Learning Communities Center

Along with his role as First Year Experience Coordinator with the Title V grant, Eric Grabiel has taken over the reins of Basic Skills Initiative coordinator from Victoria Bañales and also directs operations at the Learning Communities Center (LCC) in room 501.

Student interns with work study awards have been an integral part of the LCC since it opened in fall 2011, sharing their experience to help inform other students of the opportunities available in our diverse selection of Learning Communities to support success in education.

Basic Skills Initiative funding has enabled us to bring on Paula Hall as a classified hourly Program Specialist at the Learning Communities Center. A recent graduate of the Collaborative Health and Human Services program at CSUMB, Paula looks forward to supporting LCC coordination and outreach activities.
Supplemental Instruction Attendance Leads to Successful Outcomes

Title V and the math department have been working together to provide Supplemental instruction (SI), a form of group tutoring, in math classes across all levels in Aptos and at the Watsonville Center. Using the traditional SI model, the SI Leader (tutor), a recent completer of the course, attends all lectures with the students to better understand issues students are having and collaborates with the instructor to plan SI sessions based on course content, homework, and exams. SI sessions are held 3-4 times per week on a voluntary basis for all students in the course. SI sessions allow students to work in groups with their peers and the SI leader to complete homework, to study for exams, and to learn strategies for understanding difficult concepts.

Between Fall 2010 and Spring 2013, SI was offered in 20 sections of math (see Table 1) and one section of inorganic chemistry for health majors (CHEM-30A). Almost 650 students make up the 800 enrollments in math+SI sections, with 20% reenrolling in a math+SI course in the following term. Latino students (73%) from South Santa Cruz County (63%) make up the majority of the math+SI enrollments.

SI attendance has proven to be the biggest predictor of course success where it is offered. Students who attended 10+ sessions in a semester passed the class with a C grade or better at a rate of 75%, compared to only 39% of math+SI-enrolled students who did not attend SI and 47% of students in comparable non-SI sections (see Chart 1). On average, the students with the highest success rates attended at least one SI session per week. Presently, just under 50% of students enrolled in math+SI sections attend one or more SI sessions during the semester (see Chart 2). The goal for current math+SI sections is to increase weekly SI attendance across all student demographics.

### Table 1. Math+SI Course Offerings—Fall 2010 to Spring

<table>
<thead>
<tr>
<th>Course Number (#)</th>
<th>Math+SI sections</th>
<th>Location(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH-254SI</td>
<td>3</td>
<td>Aptos &amp; Watsonville</td>
</tr>
<tr>
<td>MATH-154</td>
<td>9</td>
<td>Aptos &amp; Watsonville</td>
</tr>
<tr>
<td>MATH-152</td>
<td>7</td>
<td>Aptos &amp; Watsonville</td>
</tr>
<tr>
<td>MATH-2</td>
<td>1</td>
<td>Watsonville</td>
</tr>
</tbody>
</table>

### Chart 2. Math+SI Enrollments by SI Attendance

#### Chart 1. Math+SI Enrollments by SI Attendance

Math Success Rates by SI Attendance & Student Demographics

- Non-SI sections
- MATH-254CM
- MATH-154
- MATH-152

- SI Section attended 0 sessions
- SI section attended 1-4 sessions
- SI section attended 5-9 sessions
- SI section attended 10+ sessions

- Male
- Female
- Latino/a
- White
- South County Zip Codes
- North County Zip Codes
- Overall Success Rate
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The Title V Project grant at Cabrillo College is funded through the Department of Education’s Strengthening Hispanic Serving Institutions (HSI) program. The ultimate goal of this five year initiative (2009-2014) is to enable a greater number of students assessing into pre-transfer level courses at Cabrillo College to achieve their academic and career goals. This goal is supported by the First Year Experience program, curriculum development, technology upgrades in the classrooms, increased student engagement, the Faculty Inquiry System and professional development for faculty and staff.

Title III Grant Update: The New STEM Center is OPEN!

This Fall, the new STEM Center in the 800 building opened its doors to students! The STEM Center is home to ME-SA (Math, Engineering and Science Achievement), the PLC (Physics and Engineering Learning Center), and the CIS (Computer Information Systems) Lab. In addition to the STEM Center, the 800 building houses computer classrooms, laboratories, a machine shop and faculty offices for the Computer Science, Computer Information Systems, Engineering, Engineering Technology and Physics departments. The STEM Center offers free tutoring, academic workshops and resources to help students be successful--books, computers and the company of other students working on their math and science coursework in a comfortable, casual atmosphere.

Every 2nd and 4th Friday students, faculty and professionals are invited to attend presentations and films regarding STEM internships, engineering abroad programs, new inventions and club involvement at Cabrillo and beyond. This increases the personal and academic experience of students by exposing them to new knowledge, experiences and possibilities within the STEM fields.

STEM students point the way to their new Center.