Regional Faculty Collaborations to Scale Up Innovative Math Teaching Across Colleges:
the LA Math Faculty Inquiry & Innovation Team

Anna Bakman, Tom Carey, Susan Vo

1. Overview of our goals, results and processes

2. Your questions and experiences

3. Where we are going next: regional SUITE Math Networks

4. How can we learn from each other across regional collaborations?
Context: the Los Angeles Community College District

<table>
<thead>
<tr>
<th>ENROLLMENT FIGURES, Fall 2012</th>
<th>TOTAL: 132,601</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT PROFILE, Fall 2012</td>
<td></td>
</tr>
<tr>
<td>53.6% Latino</td>
<td></td>
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<tr>
<td>14.8% African-American</td>
<td></td>
</tr>
<tr>
<td>13.2% Asian</td>
<td></td>
</tr>
<tr>
<td>16.7% White</td>
<td></td>
</tr>
<tr>
<td>24.4% Non-Native English speaking</td>
<td></td>
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<tr>
<td>51% Below the poverty line</td>
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LACCD leads the California Community Colleges Success Network
LA Math Faculty Inquiry & Innovation Team: Goals

*Cooperative Inquiry Team* across Math departments...

- Team structure designed by District Math Council
- Common theme around Dev Math Algebra pathways
- Colleges chose a redesign focus and participating faculty member(s)
- Aligned with college *Achieving the Dream* initiatives
- Individual work, online/phone interactions and face-to-face meetings

...moving toward a *Cooperative Innovation Network* across the region

- Adapt exemplary knowledge & resources from other LACCD colleges
- Develop structures for ongoing faculty collaboration & knowledge exchange
Several LACCD colleges have implemented local versions of compressed pathways:

- **Arithmetic & Pre-algebra:**
  - East, Pierce, Southwest, Trade Tech, Valley, West
- **Accelerated Algebra in one term:**
  - City, East, Pierce, Trade Tech, Valley
LA Math FIT: Results

• Pilot concurrent enrolment in Elementary (115) and Intermediate (125) Algebra in one term
• Content integration and separate exam components allow for credit in one or both courses

<table>
<thead>
<tr>
<th>Math 115 + 125 integrated Spr2013</th>
<th>Enrolment (at census date)</th>
<th>Retention</th>
<th>Successful Completion (A-B-C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline (LAVC 115 2009-10)</td>
<td>Not available</td>
<td>Not available</td>
<td>51%</td>
</tr>
<tr>
<td>Integrated 115 grade</td>
<td>18</td>
<td>100% (18)</td>
<td>72% (13)</td>
</tr>
<tr>
<td>Baseline (LAVC 125 2009-10)</td>
<td>Not available</td>
<td>Not available</td>
<td>53%</td>
</tr>
<tr>
<td>Integrated 125 grade</td>
<td>18</td>
<td>100% (18)</td>
<td>50% (9)</td>
</tr>
<tr>
<td>Baseline (LAVC 115/125) in 1 year</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

In progress:
• Ongoing work underway to track student success in subsequent courses
• Continuing Fall 13 and Spring 14 offerings of integrated Algebra
LA Math FIT: Results for LA Trade Tech

- accelerate Elementary (115) & Intermediate (125) Algebra sequence into single “compressed” term as two back-to-back 8-week courses

<table>
<thead>
<tr>
<th>Math 115 Spr 12, Fa 12, Spr 13</th>
<th>Enrolment (at census date)</th>
<th>Retention</th>
<th>Successful Completion (A-B-C-P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline (LATT 2010-12)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Math 115 (1st eight weeks)</td>
<td>128</td>
<td>82% (108)</td>
<td>63% (80)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Math 125 Fa 12 + Spr 13</th>
<th>Enrolment (at census date)</th>
<th>Retention</th>
<th>Successful Completion (A-B-C-P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline (LATT 2010-12)</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Math 125 (2nd eight weeks)</td>
<td>115</td>
<td>86% (99)</td>
<td>57% (65)</td>
</tr>
<tr>
<td>115 + 125 (enrolled for 16 weeks)</td>
<td>61</td>
<td>~92% (~56)</td>
<td>67% (41)</td>
</tr>
<tr>
<td>125 only (enrolled for 2nd 8 weeks)</td>
<td>54</td>
<td>~80% (~43)</td>
<td>44% (24)</td>
</tr>
</tbody>
</table>

In progress:
- track retention and completion of pilot students in subsequent courses
- Fall 13: Continue compressed pilot, add integrated pilot course
LA Math FIT: Processes

• Develop ‘social capital’ through periodic F2F gatherings
• Use regular (distributed) check-ins to sustain progress on projects
• Share plans and resources in a simple online workspace
LATT CC FIT Project Work Plan

July 2012
- Introduction to the FIT project
- Meeting representative from all nine colleges in the district
- Poll colleagues via email regarding the FIT Project
- Attend online and face-to-face FIT meetings
- Identify appropriate data to be used
- Submit our current activities to be displayed on the project pages in shared Math FIT workspace

August 2012
- Attend data research workshops to get familiar with data and learn how to operate with it
- Identify possible student success issues to be addressed (course outcomes, target subgroup, etc.)
- Obtain baseline data for developmental math courses
- Continue to interact on shared workspace pages and FIT discussion boards
- Present the FIT activities report to the Department

Current Project Focus:
Plan to offer a 5 unit class (110 in the District) that blends 105 and 112 in Sp13(?)

Trade Tech Requests regarding institutional data:

1. We need to establish English Coreq/Prereq to each of math courses.
   Students tend to skip word problems because they don’t understand the words and phrases and rarely admit it.

2. How many meetings per week are more beneficial for student success? What time?

3. Is it possible to establish at this point in time which form of redesign works better in colleges that already have tried it for several semesters in comparison to their own classes in regular format?

4. All Lisa’s questions are good questions for us as well.

Anna
FIT Data Questions.docx
[data_questions]
Recent developments at LATTC

1. For the first time in Sp 12 got money (BSI?) to hire 8 tutors recommended by Math Dept who worked April, May, and beginning of June from 9 am to 5 pm Monday through Friday with big success among students.

Other notes about LATTC

3. LATTC supports the Moodle software. Every class has a Moodle shell available to students. Several instructors put test reviews, practice tests with solutions, old finals and tests, instructional videos in these class shells.

4. Online classes are delivered through MyMathLab, instructional website by Pearson Publisher. It is very user-friendly software with class management features.

5. Several instructors use MyMathLab for on campus classes as an option to do homework, take practice tests and quizzes, use e-book and multimedia resources (Power Point Presentations, lecture videos, animations).

Recent Developments at LATTC cont’d

2. Compressed classes 105 – 112 and 115 – 125

A. Design

Format:
- 8 weeks for the first part and 8 weeks for the second part in one semester;
- A final after each part;
- The second part was open with 0 enrollment and students added by the instructor.

Instructional design:
- The same instructor for both parts;
- A separate textbook for each part;
- Instructor does a mix of lecture and group work activities.

Instructional roles:

Administrative and out-of-course experience:
- Mass emails to students in the class;
- Tutor’s help;
- Online resources for students.
LA Math FIT: Processes

- Develop ‘social capital’ through periodic F2F gatherings
- Use regular (distributed) check-ins to sustain progress on projects
- Share plans and resources in a simple online workspace

- Link to department chairs, District Math Council & system execs
- Support individual interests through ‘knowledge concierge’ services
- Assign initial ‘followers’ to track other colleges
Each college faculty rep selected specific other projects to "follow":

[Map showing connections between colleges]
LA Math FIT: Processes

• Develop ‘social capital’ through periodic F2F gatherings
• Use regular (distributed) check-ins to sustain progress on projects
• Share plans and resources in a simple online workspace

• Link to department chairs, District Math Council & system execs
• Support individual interests through ‘knowledge concierge’ services
• Assign initial ‘followers’ to track other colleges
  • Evolve into personal relationships of “the like-minded’

• Keep accountability within the department
• Use data summary reports to highlight data-driven analysis
• Leverage team members’ knowledge to make further connections
Notes:
• Several LACCD colleges redesigned Intermediate Algebra for Statistics,
• Also using new non-STEM pathways, e.g., Statway™, Path2Stats (cap.3CSN.org)

Other regional collaborations sharing ideas with us:

- Bay area colleges Math Knowledge Exchange
- Ontario College Math Assoc.
- San Diego Area Math Knowledge Exchange

What are your experiences with regional collaborations for math faculty across colleges?
Where we are headed...regional networks for
*Scaling Up Innovative Teaching Exemplars: SUITE Math (3CSN.org)*
How can we learn from each other across regional collaborations?

tcarey@mail.sdsu.edu  bakmanaa@lattc.edu  vosh@lavr.edu

Anna Bakman (LA Trade Tech)
Bonnie Blustein (West LA)
Carole Akl, Ryan Yamada (Mission)
Frank Ma, Farah Saddig (Harbor)
Lisa Deutsch (East LA)
Howie Schwesky, Kathie Yoder,
Kathy Yoshiwara (Pierce)
Naeemah Payne (City)
Susan Vo (Valley)
Zekarias Dammena (Southwest)

Bob Smazenka, Luz Shin - District Math Council
Tom Carey, San Diego State University   Roza Ekimyan, LACCD & 3CSN