Increasing Student Completion Through Contextualized Learning

LINKS 3
Learning in Networks for Knowledge Sharing
3CSN
Saddleback College

Linda Collins
April 8, 2011
College Completion: “The Big Goal”

President Obama asks every American to commit to at least one year or more of higher education or career training.

By 2020,
• America to have highest proportion of college graduates in the world.
• CCs to produce an additional 5 million graduates

By 2025,
• Bill & Melinda Gates Foundation: Double low-income adults w/ degree/certificate by age 26.
• Lumina Foundation: Increase # with degree/credential to 60% (from 40%)
CA CCs Focus on Completion

• CA Community College League: A 2020 Vision

• CA CC Graduation Initiative: 1 million additional certificates and degrees by 2020
  — ½ certificates; ½ degrees

• CCC Student Success Task Force (SB 1143 Liu): increase student success and completion

• Communities Learning in Partnership (CLIP): Gates grant to Riverside and San Francisco to double completion of low-income students
Certificates Matter . . .

• Middle-skill jobs, which require > HS degree but < 4 yr degree, make up largest segment of jobs in CA, and will for years to come.

• CA faces critical shortages in crucial industries, particularly in middle-skill jobs

• 3/4s of those who will be in the labor force in 2020 are already past the reach of K12

• One year plus a certificate was the “tipping point” in WA
Total projected jobs in California in 2018 by education required

*(Help Wanted, Georgetown University, 2010)*

- Postsecondary credentials: 61%
- High school graduates: 22%
- Less than high school: 17%
Certifies Count . . .

- “High-quality certificates offer substantial labor market returns”

- “Consistent and unambiguous evidence of positive, strong labor market returns to certificates of at least one year”

- “Some evidence to suggest that certificate completers can earn more than associate completers”

- “Evidence is less certain about earning gains from certificates of less than one year” (varies by industry)

“Those who started but failed to complete a credential had negligible earnings returns to the few credits they accumulated.”

“A year of coursework to realize a labor market return, and even then returns lag for those who walk away with no credential.”

## Certificates by Length

<table>
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<tr>
<th>California</th>
<th>Count</th>
<th>Percent of total</th>
<th>Per 10,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>124,554</td>
<td>100%</td>
<td>33.7</td>
</tr>
<tr>
<td>Short Term</td>
<td>76,692</td>
<td>61.6%</td>
<td>20.7</td>
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<tr>
<td>Long Term</td>
<td>47,862</td>
<td>38.4%</td>
<td>12.9</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>National</th>
<th>Count</th>
<th>Percent of total</th>
<th>Per 10,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>815,334</td>
<td>100%</td>
<td>26.6</td>
</tr>
<tr>
<td>Short Term</td>
<td>435,733</td>
<td>53.4%</td>
<td>14.2</td>
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<tr>
<td>Long Term</td>
<td>379,601</td>
<td>46.6%</td>
<td>12.4</td>
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</tbody>
</table>

Source: Complete College America, IPEDS 2009
## CA: Certificates by Sector

<table>
<thead>
<tr>
<th></th>
<th>California %</th>
<th>National %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>43.3 %</td>
<td>53.1%</td>
</tr>
<tr>
<td>Proprietary</td>
<td>50.0 %</td>
<td>42.9%</td>
</tr>
<tr>
<td>Other</td>
<td>7.0 %</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Source: Complete College America, IPEDS 2009
Do you know

• The student enrollment patterns/pathways at your college?
• The rate(s) of completion for your college? program?
• Which students are more likely to complete?
• How many of those earning short term certificates go on to earn a long term certificate? A degree? Transfer?
Increasing and accelerating completion

Intentional program design:
- Career pathways
- Certificates: stackable, nested

Innovative instruction:
- Accelerated, contextualized
Some Design Principles

“No dead ends; no false promises.”

“One size fits few.”

“Everything counts.”

Julie Strawn
Center for Law and Social Policy
What are Career Pathways?

• Carefully crafted programs linking education & support strategies to enable students, often while working, to advance over time to successively higher levels of education & employment in a given industry or occupational sector

• Each step is designed to prepare students to progress to the next level of education and career

• Span the entire range from entry level, intensive “bridge” programs for underprepared students and extending through postsecondary certificates & degrees

• Certificates are “stackable” & “nested” into degree/transfer requirements

• Incorporate innovations in instruction and delivery and help student reach goals faster

• Focus on careers in demand, with family-sustaining wages and ongoing advancement opportunities
Stackable Certificate and Degree Programs

- Liberal Arts Courses Required to Satisfy AA/AS Degree Requirements or for Transfer to 4-Year University

- Focuses on Advanced Technical Skills, Management/Professional Skills

- Includes Competencies to Pursue Multiple Career Pathways

- Focuses on Occupation-Specific Technical Skills and Competencies

- Focuses on Industry-Wide Skills and Competencies

- Typically Includes Applied Mathematics/Algebra

Prep Programs - Trade Bridge Academy
SMCCD  Allied Health Career Advancement Academy

Skyline College
Respiratory Therapy
Associate Degree Program

College of San Mateo
Nursing
Associate Degree Program

Cañada College
Radiologic Technician
Associate Degree Program

Prerequisites
Participants may complete prerequisites at any college
and go into any of the three higher level healthcare programs

Students earn certificates in one or two semesters, and go directly into high paying Allied Health jobs and careers.

Gateway to Allied Health Careers: CAA Bridge (1)
Student learning community cohorts
Contextualized basic skills including Math and English or English Speakers of Other Languages Course
Orientation to Allied health Careers/ Healthcare Gateway, involving employers and worksites
College success and student support services integrated with WIB Services
Participants enter Gateway at Cañada College or Skyline College then go up the career ladder at any of the three colleges.
(1) or (2) represent the number of semesters required for accelerated certificate completion.
City College of San Francisco

Metropolitan Health Academy Course Sequence
Where College Success Meets Social Change

MHA Level I
SEMESTER 1 OR 2 (FALL OR SPRING)
- Health 53 Health Science
- Supplemental Instruction Course* (optional)
  Satisfies Area E + a Health Ed major requirement at SF State
- ESL 160 High Advanced Academic ESL
- English 92 Basic Composition and Reading
- English 93 Intro to Academic Writing and Reading
- English 96 Academic Writing and Reading
- Math E or Math 840 Basic Math or Elementary Algebra

MHA Level II (FALL)
- Health 53 Health Science
- Supplemental Instruction Course* (optional)
  Satisfies Area E + a Health Ed major requirement at SF State
- English 93** Intro to Academic Writing and Reading
- English 96 Academic Writing and Reading
- Math 840 or 860 Elementary or Intermediate Algebra
- Biology 9*** + Lab or Biology 11
  (Satisfies Areas B2/B3)
- Area B1
- US History (Satisfies Area C2)

MHA Level III (SPRING)
- Health 211 Health and Social Justice
  Satisfies Area C7 + a Health Ed major
- Health 213 Urban Health Policy
  Satisfies Area C7 + a Health Ed major
- English 1A University Reading and Composition
  Satisfies Area A2
- Psychology 5 Statistics for Behavioral Sciences
  Satisfies Area B4

Bachelor Degree
Students transfer to a CSU Four-Year University to complete Segment III and major courses toward BA or BS degree.
120+ units
Efficient pathway to multiple majors†
- Health Education
- Social Work
- Sociology
- Child and Adolescent Development
- Urban Studies
- Political Science
- Recreation, Parks and Tourism
- Psychology

Other General Ed Courses for Transfer (See counselor for sequence)

High Impact Educational Practices Tailored to MHA Curriculum
- Urban health and social justice focus for contextualized, meaningful learning
- Writing-intensive courses with tutorial support
- Competency-based curriculum with carefully sequenced instruction and experiential, engaged pedagogy
- High expectations, clearly articulated for all students
- Strong academic counseling for degree completion
- Six courses aimed to strengthen critical thinking, oral communication and quantitative reasoning skills
- Impactful assignments
- Student learning community to integrate courses and maximize social support
- Faculty learning community to enhance instruction

* Recommended for MHA students; structured study support.
** If students take Eng 91 in the Spring, they must take Eng 94 in the summer to enter MHA Level II in the Fall.
*** If students are Health Education majors, they must take this class.
† MHA may also work for other majors such as Dietetics, Kiniesiology and Nursing, which have additional requirements. Students should always consult with an academic adviser to be aware of the requirements for their particular major.
BRIDGES TO POST-SECONDARY EDUCATION & EMPLOYMENT

INDUSTRY RECOGNIZED CREDENTIALS

- LIFE-LONG LEARNING
  - MANAGERS & TECHNICAL PROFESSIONALS
  - SKILLED TECHNICIAN
  - ENTRY-LEVEL TECHNICIAN

- ENTRY-LEVEL SKILLED JOB
- SEMI-SKILLED JOB
- UNSKILLED JOB

ADVANCED PROFESSIONAL DEGREES

BACCALAUREATE DEGREES

ASSOCIATE DEGREES
  - Associate in Arts
  - Associate in Science
  - Associate in Applied Science

TECHNICAL CERTIFICATES
  - Career & Technical Education (college credit)

BRIDGE PROGRAM
  - Contextualized Instruction
  - Career Development
  - Transition Services
  - Adult Education (GED, ESL, ABE), Developmental Education, Workforce Agency or Community Organization

RECRUITMENT, ASSESSMENT & PLACEMENT

STRONG CONNECTION TO JOBS

LEARNING WHILE WORKING
ALIGNING EDUCATION, CERTIFICATION AND CAREER PATHWAYS

*Industrial Systems Technology*

**Forsyth Tech, Greensboro, North**

**EDUCATION PATHWAY**

**BACHELOR OF SCIENCE/ENGINEERING DISCIPLINE**
- Potential path not currently articulated
- NCSU, NCA&T, UNC-C, ECU

**ASSOCIATE IN APPLIED SCIENCE**
- 70 Credit Hours / Two Years Full Time
- 22 Courses
- Day Curriculum

**DIPLOMA PROGRAM**
- 41 Credit Hours / One Year Full Time
- 14 Courses
- Day Curriculum

**CERTIFICATE PROGRAM**
- Machine Operator
- 12 Credit Hours / 6 months
- 4 Courses

**CERTIFICATION PATHWAY**

- SME Engineering Technologist
- MSSC Maintenance Awareness
- MSSC Safety
- NIMS Level I, Benchwork and Layout
- National Career Readiness Certificate

**CAREER PATHWAY**

- Mechanical Engineer
- Maintenance Engineer
- Plant Engineer
- Entry Level Maintenance Worker
- Machine Operator
- Assistant Maintenance Person
- Maintenance Helper
- Operator
- Assistant Maintenance Person

**National Career Readiness Certificate**

- Personal Effectiveness
- Academic Competencies
- Workplace Competencies

**High School**
- Dual Enrollment - Careers Now - 12 In 6 Initiative

**Out of School/Low Skill Youth/Adults**
- WIA/Career Centers – ESL/YESL - GED/ABE
- “Bridge” and Foundation Programs

**Skilled Adults**
- Retraining/Lay Offs – Continuing Education
- Company Specific Apprenticeship
Contextualized Teaching and Learning (CTL)

Many people learn better and faster, and retain information longer, when they are taught concepts in context.

- Makes it relevant
- Engages and motivates hard-to-reach students
- Increases learner confidence & enthusiasm
- Enhances interest in long-term goals & education

Center for Student Success, Research & Planning Group.  
*Basic Skills as a Foundation for Student Success in CA Community Colleges*, p. 58.
Contextualized Teaching and Learning (CTL)

- Strategies to link essential skills & academic or occupational content
  - concrete applications
  - specific context of interest to the student

Includes:
- Design of curricula
  - integration of essential skills & content
- Teaching
  - use of cases, project-based learning and other student-centered practices
- Assessment
  - examining application of knowledge and the transfer of skills
Different ways to accomplish CTL

- Infused academic courses
- Infused career technical courses
- Linked courses or learning communities
- Team teaching of integrated academic and occupational courses

D. Perin. *Academic-Occupational Integration as a Reform Strategy for the Community College: Classroom Perspectives*. Teachers College Record, vol. 103 2010

Contextualized learning in the CCCs

Students in contextual math compared to standard math courses:

• 324% more likely to pass contextual course
• 387% more likely to pass degree applicable coursework in the same semester
• 400% as likely to pass transfer-level course in the same semester

Students in contextual math compared to standard math courses:

• 167% more likely to pass degree applicable coursework in the subsequent semester

• These effects are more pronounced for Black and Hispanic students.

I-BEST — Integrated Basic Education & Skills Training

- WA state “tipping point”: 1 yr CC + certificate
- Address basic skills concurrently w/ credit Career Technical Education: basic skills faculty team teach with CTE faculty.
- Piloted at 10 colleges; then spread to all 34 CCs:
- 5 X’s college credits; 15 Xs more likely to complete
- 1.75 FTES reimbursement for I-BEST students
- Obama cites I-BEST in April 2010 speech
CCC: Career Advancement Academies

• Establish pipelines to college and high wage careers for underemployed, underprepared young adults (18 – 30 years old)

• Bridge programs connected to career pathways in key sectors

• Utilize range of approaches, but have common key elements:
  — Contextualized Teaching and Learning as core strategy
  — Cohort based learning communities combine basic skills and CTE
  — Integrated student services
  — External partnerships (business, labor, WIBS, CBOs, adult ed/ROCPs)
  — Attention to transition strategies

• Demonstration projects:
  — Phase 1: 29 colleges in 3 regions (East Bay, Central Valley, LA)
  — $15 million investment over 3 years; > 6,500 students to date
  — Phase 2: expanding to 4 regions
  — Public/Private Partnership between CCC system and philanthropy
  — CLP: TA/support; Public/Private Ventures: evaluation; CalPASS: data

• 90% retention; 74% course success*

  * Source: Cal-PASS, April 2010.
Growing momentum for CTL in CA

- CAAs refunded for 2010-11 ($5M)
- CCC CTE and basic skills initiatives cut but survived
- ASCCC collaborates on Faculty CTL Primer (RP Group, CLP) with Student Perspectives Video (CLP)
- LINKS3 regional events focus on Acceleration and CTL
  - 3CSN with CLP
- “Linked Learning” endorsed by CA Dept. of ED as the high school transformation strategy:
  - “rigor and relevance”
  - “college and career”
2020 Vision Recommendations . . .

• Develop an enhanced Basic Skills funding model that includes clear and expedited pathways for students tied to defined research-based benchmarks or “momentum points” leading up to and including completion.

• Develop alternatives to traditional curriculum sequences using linked or contextualized curriculum across curricular areas.

Student Voice

Brief Overview Video from the Career Advancement Academies illustrates power of CTL (7 minutes)

http://careerladdersproject.org/videoa/vpages/caaoverview10.html

• From Students Speak: Voices from the Career Advancement Academies by the Career Ladders Project
• All videos available on CareerLaddersProject.org (and YouTube)
Next steps?

- Consider how to make an assignment or a course more relevant (to an interest; real world context; theme; discipline; career)
- Shadow another course, worksite or other external context to learn what students will be expected to know/do in that context;
- Collaborate with faculty in another discipline
- Work with learning communities on campus
- Find allies/champions with similar interest
- Work with IR to analyze
  - course taking patterns & pathways, momentum point attainment, milestones and completion;
  - disaggregate by student characteristics and goals
- Consider more complex models combining effective elements/strategies
Strand A

• Devon Werble, Career Ladders Project, ESL/English, L.A. City College

• Greg Bernhard, Mathematics, L.A. City College
  L.A. Healthcare Career Advancement Academy

• Myron Franklin, Wood Technology, Laney
  Programa en Carpintería Fina

• Rob Yung, ESL, City College of San Francisco
  Bridge to Biotech
Strands B and C

- **Cindy Hicks**, English, Chabot College
- **Lynn Wright**, English, Pasadena City College
- **Matthew Freeman**, Political Science, Berkeley City College
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