

Promising Practices: Curriculum & Instruction

2010 Leader Colleges



Achieving
the Dream™

Community Colleges Count

December, 2010

Overview

- Every Achieving the Dream institution develops and implements research-based policies and practices based on an analysis of its institutional strengths, problem areas, and achievement gaps.
- The colleges are committed to assessing the effectiveness of their policies and practices, institutionalizing approaches that prove successful, and sharing their findings widely.
- This deck is a working document, providing an overview of some promising practices in “Curriculum & Instruction” for improving student outcomes as reported by the 2010 Leader Colleges.

Please, Keep in Mind...

- **These promising practices are implemented as part of Achieving the Dream's larger student-centered model of institutional improvement.**
- **These institutions have committed to Achieving the Dream's four guiding principles and five-step process of institutional improvement, and are creating a culture of evidence in which data and inquiry drive broad-based institutional efforts to improve student outcomes.**
- **Attempts to replicate any promising practice described in this deck should be done in the context of Achieving the Dream's integrated institutional improvement framework.**

Student success begins in the classroom, so Achieving the Dream institutions also implement strategies to improve pedagogical practices. Strategies aimed at improving the quality of the learning experience may include interventions targeted to gatekeeper courses, employing active and cooperating learning practices, technology-supported, experiential and service learning activities.

Curriculum & Instruction



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- **Cuyahoga**
Paired Math Course
- **Houston Community College**
Learning Communities
- **Patrick Henry**
Active Cooperative Learning



Cuyahoga Community College: *Paired Math Course*

One of Cuyahoga's original ATD interventions was a paired-course approach to the teaching of Beginning Algebra, linking this course to a two-credit course dealing with study skills, attitudes related to math and educational responsibility, and time on task doing math problems. A college-wide analysis of course completion rates demonstrated that students in the Math 0850/0950 initiative did marginally better than a matched cohort. The percentage of students participating in the initiative that successfully completed Math 0950 ranged between 60 and 69% over time while the matched cohort ranged from 50% to 64% success rate. The college has also seen an increase in the number of students completing the developmental math sequence in one year; they attribute some of this increase to the paired math course offering, as well as faculty-driven innovation of instructional techniques.



Cuyahoga Community College: *Paired Math Course*

Completion of the Beginning Algebra Sequence in One Year

| New Student Cohort | Placed in Math 0950 | Completed Math 0960 with A-C by following Summer | % Passed Math 0960 with A-C |
|---------------------------|----------------------------|---|------------------------------------|
| Fall 2005 | 701 | 105 | 15.0% |
| Fall 2006 | 788 | 124 | 15.7% |
| Fall 2007 | 760 | 134 | 17.6% |
| Fall 2008 | 826 | 163 | 19.7% |



Houston Community College: *Learning Communities*

Houston launched learning communities on their campuses in 2004 with fewer than 100 students. Currently, over 1000 students each semester participate in learning communities, now including pairings designed exclusively for developmental education students. The success and expansion of this intervention is one of the factors that has contributed to Houston's steadily increasing student retention rate. The higher persistence rates of the Fall 2008 cohort means that 458 more students returned in Spring of 2009, and 943 more returned in Fall 2009 than would have been predicted based on 2002 persistence rates.



Patrick Henry Community College: *Active Cooperative Learning*

Patrick Henry Community College is focusing on changing the classroom environment through the use of cooperative learning, an inside-the-classroom student engagement strategy. Effective use of cooperative learning develops a constructive classroom environment, allows the faculty to cover more material, improves student social skills, and creates positive interdependence. Successful cooperative learning occurs when group members realize that each person's efforts benefit all other members. The use of cooperative learning can lead to a dramatic change in classroom culture. Additionally, PHCC is using logistic modeling which more accurately measures the impact of educational interventions. An analysis of graduation and transfer to four-year institution rates over a three year period by cohort shows that both graduation and transfer to four-year institution rates are considerably higher for those who begin the first- year experience with active-cooperative learning versus those who do not.



Patrick Henry Community College: *Active Cooperative Learning*

GRADUATION AND TRANSFER TO FOUR-YEAR INSTITUTION RATES: Comparing Active Cooperative Learning Participants with Non-ACL Participants

| Cohort | N | ACL | Total | | Year 1 | | Year 2 | | Year 3 | |
|--------|-----|-----|--------|------------|--------|------------|--------|------------|--------|------------|
| | | | Grad % | Transfer % | Grad % | Transfer % | Grad % | Transfer % | Grad % | Transfer % |
| 2003 | 514 | No | 26.1 | 11.7 | 3.1 | 4.5 | 10.5 | 3.9 | 12.5 | 3.3 |
| 2003 | N/A | Yes | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 2004 | 542 | No | 23.3 | 17.2 | 5.2 | 8.5 | 8.5 | 5.4 | 9.6 | 3.3 |
| 2004 | N/A | Yes | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 2005 | 391 | No | 19.4 | 15.6 | 4.9 | 5.6 | 6.4 | 6.4 | 8.2 | 3.6 |
| 2005 | 154 | Yes | 24.7 | 22.1 | 3.9 | 7.8 | 7.8 | 7.8 | 13.0 | 6.5 |
| 2006 | 410 | No | 18.8 | 14.4 | 5.4 | 8.1 | 6.1 | 4.4 | 7.3 | 2.0 |
| 2006 | 112 | Yes | 23.2 | 22.3 | 2.7 | 13.4 | 8.9 | 4.5 | 11.6 | 4.5 |

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