



- 
- 
- 
- 
- 

## Understanding the Needs of High Risk Students: The Digital Bridge Academy

November 9, 2004

**Diego James Navarro**, Director, Digital Bridge Academy, Cabrillo College

**Rock Pfothauer**, Dean, Occupational Education, Cabrillo College

Email: [diego@cabrillo.edu](mailto:diego@cabrillo.edu)

Phone: 831 477-5166



# Outline

## Context

- Research Approach
- 
- Results
- 
- Digital Bridge Academy Description
-



# City of Watsonville

79% Latino Population in Watsonville

Half of the school age children speak English as a second language

- Achievement ratings of Watsonville schools among the lowest in the state
- Poverty rate is twice the national average
- Violence and gangs in neighborhoods & schools
-



# Project Phases

## Phase 1 – Research and Development – Began February 2002

- Funding: James Irvine Foundation, and David & Lucille Packard Foundation



## Phase 2 – Full implementation and scale – Began Fall 2003

- Funding: National Science Foundation (3 year award)



## Phase 3 – Dissemination – To begin Summer 2005

- Institutionalized and sustainable at Cabrillo College – Fall 2005
- Begin fundraising for national dissemination - November 2004



# Definitions

At-Risk Students

High-Risk Students

- Digital Bridge
- 
- 
- 
-

# Typical Academy Student

## Student Demographics (On-going cohorts – not “mini-pilots”):

- 95% Latino
- 95% Low-income
- Ages: 18 – 55 years old
  - Mean Age 20 years old
- 75% ESL backgrounds
- 67% 1<sup>st</sup> in family to attend college
- 62% from parents in migrant occupations
- Basic Skills Level: 9<sup>th</sup> Grade to college-level
- 45%+ are from High-Risk populations

## Student Characteristics:

- Do not typically see themselves going to college
  - Lack success in school; under prepared for college-level study
- Do not understand their capabilities – self-efficacy
- Not ready for Cabrillo College’s Allied Health, CIS/CS and science-based programs
  - Not exposed to the sciences in High School
- Unsure of career possibilities and major



# Research Approach

Understand the needs of At-Risk / High-Risk students

- Investigate innovative curriculum approaches
- Develop Educational Model and Design Principles
- 
- Develop and Pilot-Test Curriculum
-

# Research Approach

Understand the needs of At-Risk / High-Risk students:

- 125+ interviews with experts working with at-risk youth

- Social / Personal Needs
- Financial Needs
- Career Needs
- Academic Needs
- Community / Family Needs

Investigate innovative curriculum approaches to meet need

- 35+ interviews with experts in various fields

## Research Approach

# Develop Academy Educational Model

Provide a transition to adulthood-based curriculum with an ‘Inside / Out’ focus

- First “Light the Fire Within”...create the capacity for success
- Establish a learning community cohort to provide deep support

Then focus on academic acceleration not remediation

- Accelerate student to college-level in one semester using college-level curriculum
- Provide integrated curriculum to reinforce learning

Provide for cycles of learning and growth

- High-risk students have complex lives; their progress and growth is not linear
- Different rates of transformation; they are at different stages of transformation
- Difficult to make cultural shift from student’s current milieu

Engineer for dissemination

- Easily adaptable to different ethnicities & careers
- Create process for integrating curriculum which can be disseminated
- Sustainable business model relying on local funds

# Research Approach

## Develop Academy Educational Model

### Core Program

- 
- 
- 
- 
- 

**Educational Program**

**Student Support Services**

**Work Preparation and Experience**

# Bridge Academy Outcome Goals

## Educational / academic outcomes

- Successfully transition students to typical community college class environment
- Prepare for and recruit to high-wage / high-demand careers
- Provide individualized career and education plans
- Support student persistence until transfer and/or certification

## Student support services outcomes

- Maintain strong learning community throughout student's Cabrillo experience
- Steer students to support services as needed
- Provide individualized student support plans

## Progressively intensive work experience outcomes

- Prepare for knowledge-base careers
- Focus on skills needed in knowledge-base careers
- Provide increasingly more sophisticated work experience

# Research Approach Academy Program Elements by Semester

## First Semester:

- ■ Foundation Course Immersion (3 weeks – 4 units)
  - Focus - rekindling fire within for learning
- ■ Bridge Semester (13 weeks – 13 units)
  - Focus – acceleration to college level in one semester
  - Integrated curriculum (**5 courses / 5 faculty**)

## 2<sup>nd</sup> Semester:

- ■ Academy seminar (1.5 units)
- ■ Academy Conceptual and Applied Science Course (**2 units / 3 faculty**)
- ■ Academy paid internships
- ■ Other Cabrillo College courses focused on student's major / career (**9-12 units**)

## 3<sup>rd</sup>+ Semesters:

- ■ Academy seminar (1.5 units)
- ■ Academy paid internships
- ■ Other Cabrillo College courses focused on student's major / career (**11-14 units**)

## Research Approach

# Develop and Pilot-Test Curriculum

Develop and pilot-test Foundation Course curriculum:

- Piloted Foundation Course (“Light the Fire Within”)
- 105 students participated
- Performed four “mini-pilots”
  - Four 40-hour one week pilots
  - Predominantly high-risk students (92%)
- In addition, pilot-tested three semesters of the three week Foundation Course

Develop and pilot-test Bridge Semester curriculum:

- Piloted Bridge Semester “Acceleration to College-Level in One Semester” curriculum
- Five courses taught by five college faculty
- 69 students participated
- Pilot-tested for 2 semesters (2/3 through 3<sup>rd</sup> semester)
  - First cohort – 30% high-risk students
  - Second Cohort – 63% high-risk students
  - Third Cohort – 58% high-risk students

# Success / Completion Rates

## 4 Initial Pilots

### Demographics:

- Students ————— 52
- Latinos 96%
- Age ————— 17-43
- Female ————— ~40%
- At-Risk students — 98%
- High-Risk students – 92%

### Completion Rate:

- Foundation Course “Light the Fire Within”  
Passed Course 100%

# Success / Completion Rates

———— Semester Pilots ————  
Fall '03      Spring '04      Fall '04

## Demographics:

▪ Students	————	29	14	26
▪ Latinos /Asian / Black		93%	79%	92%
▪ Age	————	16-43	19-52	17-55
▪ Female	————	50%	57%	50%
▪ At-Risk students	—	95%	93%	96%
▪ High-Risk students	–	30%	63%	58%

## Completion Rate:

▪ Foundation Course “Light the Fire Within”				
Passed Course		100%	100%	100%
▪ Bridge Semester “Accelerate to College-Level”				
Passed All Courses		83%	71%	
Passed All But One Course			86%	



## Continuation Rate

**94% who complete Bridge Semester still in college**



# Student Feedback on Foundation Course “Lighting the Fire Within” Curriculum

## **How important was the Foundation Course to you?**

- 100% of the students responded that it was ‘Important’ or ‘Very Important’
- 81% responded that it was very important

## **Is the Foundation Course relevant to your life, is it useful to you?**

- 99% of the students responded that it was ‘Relevant’ or ‘Very Relevant’
- 67% responded that it was very relevant

## **Did the Foundation Course impact your life, did it change you?**

- 99% of the students responded that it had ‘Impact’ or ‘High Impact’
- 54% responded that it had high impact

## **How has your motivation changed for succeeding in life?**

- 100% of the students responded with the highest response – ‘A Lot’



## Contact Information

Email: [diego@cabrillo.edu](mailto:diego@cabrillo.edu)

- 
- Phone: (831) 477-5166
- 
- 
-