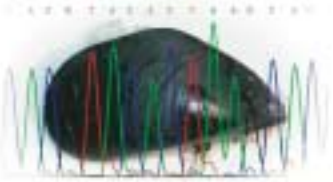
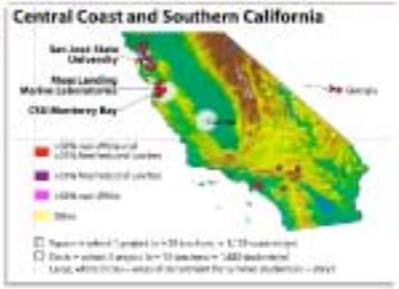


# Marine Biotechnology and Bioinformatics

*for Teachers*

## Project Background: The Evaluation Results

### Student Populations and Locations Served by Teacher Participants




#### Approaches to Connecting

- Teachers recruited from districts with high proportions of underrepresented students
- MBB partnered with enrichment programs for underrepresented high school students

### Benefits of Participation

#### Teachers

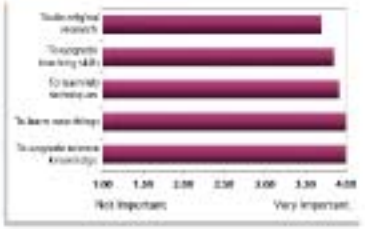
- Experienced authentic science
- Mastered new information and skills
- Implemented best teaching practices
- Increased self-confidence
- Experienced cutting edge techniques
- Developed a learning community

#### Students

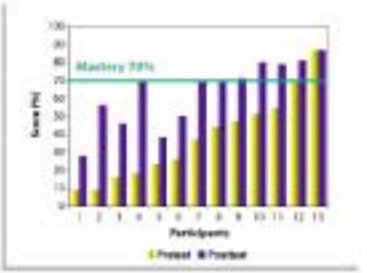
- Experienced authentic science activities
- Engaged in cutting-edge hands-on science and technology
- Saw the ocean for the first time
- Developed a college-bound peer community
- Collaborated in peer teams to present their findings
- Experienced authentic assessment

### Evaluation

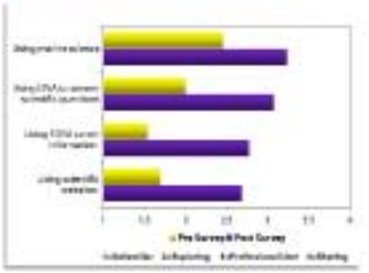
#### Reasons for Attending: to Learn Science



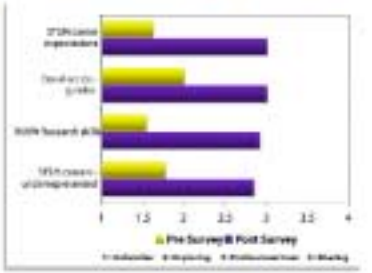

#### Participants Mastered the Science Lessons Learned




#### Participants Learned to Teach the Science More Effectively




#### Participants Learned to Integrate STEM Careers in Their Lessons




#### Evaluation Approaches

- Pre/post surveys of attitudes and knowledge
- Satisfaction surveys
- Observations and informal interviews

#### Lessons Learned

- Begin targeted recruitment earlier.
- Use self-paced instruction and question sessions to accommodate individual differences.
- Review daily goals, tasks, and priorities to help participants use their time more effectively.
- Use participants' goals, including STEM career component, to focus curriculum.
- Enrich out of class time, an under-exploited resource.
- The workshop motivated high school participants to study science and work harder in school.