Incorporating Active Learning Strategies in Student Learning

Presentation for SACSCOC 2018 Annual Meeting
December 10, 2018
New Orleans, LA

Presenters

• Dr. Anahid Petrosian
  Interim Vice President for Academic Affairs
  South Texas College

• Yolonda Jaramillo
  Director of Academic Assessment
  HSI (Title V) Grant Director
  South Texas College

Overview

• Brief Overview of South Texas College
• FOCUS Academy
  • History and Background
  • Academy Structure
• Active Learning Classrooms
  • Classroom Structure
  • Observation of Active Learning Strategies
• Key Findings and Outcomes
  • Evaluation Metrics and Study Participants
  • Quantitative and Qualitative Findings
  • Conclusion, Implications and Recommendations
Brief Overview of South Texas College
Dr. Anahid Petrosian
Interim Vice President for Academic Affairs

About South Texas College
Brief History

- Established in 1993
- Serving Two Counties: Hidalgo and Starr
  Combined Population of 1 million
- 6 Campuses and 2 Higher Education Centers
- Annual Budget Over $180 Million
- 3 Successful Bond Elections with Community Approving Over $250 Million
- Fall 2018 Enrollment Over 32,000 Credit Students

<table>
<thead>
<tr>
<th>Student Population</th>
<th>67%</th>
<th>94%</th>
<th>72%</th>
<th>34%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment Full-Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment Part-Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receiving financial aid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attending Online</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

South Texas College
Programs

- Over 120 programs
  - 33 Totally Online Programs
  - 4 Bachelor Degrees
- Dual Credit Students: Over 13,000
  - 23 ISDs and 78 High Schools
  - 29 Early College High Schools
  - 6 Academies (STEM and CTE)
National Ranking
Out Of 1,200 Community Colleges In The Nation

- #1 In the Nation for Awarding Associate Degrees to Latinos in STEM Fields by Excelencia in Education (2012-2013)
- #1 In the Nation for Most Affordable Online College by SR Education Group-Online Education Publisher (2016)
- #2 In the Nation for Awarding Associate Degrees in All Disciplines to Hispanics by Community College Week (2016)

Educational Highlights
2017-2018 Academic Year

- STC was recognized as #8 in the Nation and #1 in Texas for assisting students in economical mobility (Equality of Opportunity Project, 2018)
- Bachelor of Science in Nursing Program approved by the Texas Legislature
- Designated as a National Center for Academic Excellence in Cyber Security (2017)
- Established the Regional Center for Public Safety Excellence
- National winner of Excelencia in Education for the Competency-Based Bachelor of Applied Science in Organizational Leadership Program (2017)
- Completion of Bond Projects – New Buildings

FOCUS Academy and Active Learning Classrooms

Yolonda Jaramillo
Director of Academic Assessment
HSI (Title V) Grant Director
Background

Purpose Statement
To provide greater access to our students, keep on the pathway, and ensure that they have the best learning experience possible in the classroom
- Received 2.5 million Title V HSI grant
- Ongoing study since 2014

Objectives
- Faculty Competence in Active Learning Teaching Skills
- Increase Student Engagement
- Improve Student Performance

FOCUS Academy

Structure
- Semester-long Academy
- 7 Sessions
- 64 Faculty Graduates per Academic Year
- Participate in Rounds Process as both the Observed and Observer

FOCUS Academy Graduates by Cohort

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Goal</th>
<th>Graduated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2015</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>Fall 2015</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>Spring 2016</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>Spring 2017</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>32</td>
<td>30</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>32</td>
<td>56</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>32</td>
<td>25*</td>
</tr>
<tr>
<td>Spring 2019</td>
<td>32</td>
<td>36*</td>
</tr>
<tr>
<td>TOTAL</td>
<td>288</td>
<td>319*</td>
</tr>
</tbody>
</table>
Active Learning Classrooms (ALCs)

- Tier-One Classrooms
  - Document Camera
  - Mobile Furniture
  - Mobile Glass Boards
  - Mobile Instructional Desk

- Tier-Two Classrooms
  - Tier 1 Features
  - One Computer per Student Group Engagement Pod
  - Click-Share Feature

Active Learning Classroom Design

› Before

› After

Active Learning Classrooms (ALCs)

<table>
<thead>
<tr>
<th>Campus</th>
<th>Fall 2017</th>
<th>Fall 2018</th>
<th>Spring 2019</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pecan</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Mid-Valley</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Starr</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing Allied Health</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>7</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Efforts to make all Tier 1 ALCs upgraded to the Tier 2 Design began Summer 2018 and will be completed in Spring 2019.
Key Findings and Outcomes

Yolonda Jaramillo
Director of Academic Assessment
HSI (Title V) Grant Director

Evaluation Metrics

Study Design
- Faculty Interviews
- Student Focus Groups
- FOCUS Academy Surveys
- Active Learning Classroom Observations
- Comparative Analysis of Student Success

Study Participants

- 5 Faculty Interviews
  - Teaching in both ALC and traditional classroom
  - Received Faculty Professional Development specifically for ALCs
- 5 Student Focus Groups
  - Attended classes in ALC and traditional classrooms, Fall 2017 and Spring 2018
  - Volunteered to participate
  - 90 participants total
- Faculty and students were selected by division and campus to create a fair representative sample
Faculty Competence in Active Learning Teaching Skills

**Grant Requirements**
- During Spring 2018 classroom observations, at least 60% of the active learning strategies identified in the lesson plan were demonstrated and observed.

**Findings**
- 100% of the faculty instructing in the Active Learning Classrooms met the grant requirement.
- In fact, 65% of faculty demonstrated more active learning strategies than were identified in the lesson plan.

### Demonstration of Active Learning Strategies

**Active Learning Strategies**
- Spring 2016 - Spring 2018

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Spring 2016</th>
<th>Spring 2017</th>
<th>Spring 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative Group Work</td>
<td>67%</td>
<td>83%</td>
<td>100%</td>
</tr>
<tr>
<td>Writing to Learn</td>
<td>29%</td>
<td>43%</td>
<td>50%</td>
</tr>
<tr>
<td>Scaffolding</td>
<td>10%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Questioning</td>
<td>10%</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>Literacy Groups</td>
<td>10%</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>Writing to Learn</td>
<td>29%</td>
<td>43%</td>
<td>50%</td>
</tr>
<tr>
<td>Collaborative Group Work</td>
<td>67%</td>
<td>83%</td>
<td>100%</td>
</tr>
<tr>
<td>Scaffolding</td>
<td>10%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Questioning</td>
<td>10%</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>Literacy Groups</td>
<td>10%</td>
<td>12%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Number of faculty observed**
- Spring 2016 - 15
- Spring 2017 - 23
- Spring 2018 - 25

### Increased Student Engagement

**Perceptions of Engagement in the ALC vs. Traditional Room**

**Faculty**
- Eliminating the "front-of-room" effect increases engagement.
- Mobile furniture increases engagement between students and faculty.
- ALCs support a greater sense of community among students.
- Improved student attendance attributed to ALCs.

**Student**
- Increased engagement with their instructor and fellow students in the ALCs.
- The traditional classroom environment is a barrier to engagement.
- Interactions with classmates created a sense of belonging.
Increase Student Performance
Student Learning in the ALC vs Traditional Room

**Faculty**
- Student performance is higher in an ALC
- ALC teaching techniques engage students and impact learning
- ALCs positively contribute to student learning
- Meets the needs of diverse student learners

**Student**
- Improved performance linked to student ownership in the learning process
- Increased interaction attributed to improved performance

Comparative Analysis of Student Success
Data Collection Samples

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>FALL 2015</th>
<th>SPRING 2015</th>
<th>FALL 2017</th>
<th>SPRING 2017</th>
<th>FALL 2018</th>
<th>SPRING 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Study (FOCUS) Sections</td>
<td>71</td>
<td>46</td>
<td>246</td>
<td>254</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Students in Study (FOCUS) Sections</td>
<td>1,638</td>
<td>1,033</td>
<td>5,112</td>
<td>5,869</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Comparison (non-FOCUS) Sections</td>
<td>71</td>
<td>46</td>
<td>275</td>
<td>322</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of Students in Comparison (non-FOCUS) Sections</td>
<td>1,748</td>
<td>977</td>
<td>5,572</td>
<td>6,463</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total # of Sections</td>
<td>142</td>
<td>92</td>
<td>520</td>
<td>616</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total # of Students</td>
<td>1,748</td>
<td>2,010</td>
<td>10,684</td>
<td>12,332</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comparative Analysis of Student Success
Data Collection Samples

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>STUDY GROUP</th>
<th>CONTROL GROUP</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Sections</td>
<td>Students</td>
<td>Sections</td>
<td>Students</td>
</tr>
<tr>
<td>FALL 2015</td>
<td>71</td>
<td>1,638</td>
<td>71</td>
</tr>
<tr>
<td>SPRING 2016</td>
<td>46</td>
<td>1,033</td>
<td>46</td>
</tr>
<tr>
<td>FALL 2016</td>
<td>245</td>
<td>5,112</td>
<td>273</td>
</tr>
<tr>
<td>SPRING 2017</td>
<td>294</td>
<td>5,869</td>
<td>322</td>
</tr>
<tr>
<td>FALL 2017</td>
<td>10</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>SPRING 2018</td>
<td>10</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>
**Improved Student Performance**

*Fall 2015 to Spring 2018*

<table>
<thead>
<tr>
<th>Year</th>
<th>Tier 1</th>
<th>Tier 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2015</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Spring 2016</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>Fall 2016</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>Spring 2017</td>
<td>0%</td>
<td>2%</td>
</tr>
</tbody>
</table>

- Students who took classes in ALCs taught by faculty trained in active learning pedagogy and successfully completed their course with an A, B, or C, as compared to control group. Statistically significant differences shown.

*Note: Updated data will be available in November*

**Narrative Analysis**

**Recommendation**

- **Faculty** identified FOCUS Academy as an important factor to successful ALC
  - Additional requests:
    - More opportunities to receive hands on technology training
    - More professional development pedagogy and andragogy training

- **Students**
  - More training on how to use the technology in the Active Learning Classrooms
  - Request to share content online to supplement in-class instruction

**Conclusions, Implications and Recommendations**

*Dr. Anahid Petrosian*

Interim Vice President for Academic Affairs
Lessons Learned

- Require faculty certification (FOCUS Academy) to teach in ALC
- Promote ALCs and FOCUS Academy to increase participation
- Provide ongoing professional development for Faculty
- Conduct classroom observations
- Monitor and adjust ALCs design based on feedback
- Scheduling and observation challenges

Faculty Testimonials

- It helps having a collaborative environment that encourages student feedback. I know my students better and they know me better.

Student Testimonials

- We're sharing with each other, learning from each other and with each other.
- My performance is better because I get to interact with more people. If I have a question, I can reach out to another person in my group.
- We are a family. When you are learning from everybody, you are grasping things in a whole new manner.
Thank You!

› Dr. Anahid Petrosian
  anahid@southtexascollege.edu
› Yolonda Jaramillo
  yjaramil@southtexascollege.edu

South Texas College