What Happens in a High Impact Practice: Using Technology to Understand Student Experience

Su Swarat, Amir Dabirian, Pearl Galano & Matthew Badal
California State University, Fullerton

WASC ARC 2017
What are High Impact Practices (HIPs)?

A high impact practice is a pedagogical approach which requires an investment of time and energy over an extended period that has unusually positive effects on student engagement in educationally purposefully behavior (Kuh, 2010).

High impact practices are evidence-based teaching and learning practices that have been widely tested and shown to be beneficial for college students (Kuh, 2008).

Benefits of HIPs

Figure 1. Size of Effect of HIPs on All Measured Outcomes (Averages across California, Oregon, and Wisconsin State Systems Data)

An overall sample size could not be calculated from the available data. However, the aggregate sample size for each HIP category across state systems could be calculated. Accordingly, the number of students reporting for each HIP is as follows: learning communities=2,357; service learning (FY)=6,237; service learning (SR)=11,903; student/faculty research=4,059; senior capstone=7,189; internship=11,373; study abroad=3,146.

Source: Finley (2011)
Positive impact of HIPs participation on students’ deep learning, gains in personal and social development.
Engage Students in HIPs

All students in higher education participate in at least 2 HIPs

(Gonyea, Kenzie, Kuh & Laird, 2008)

Increase participation in high impact practices and ensure that 75% of CSUF students participate in at least 2 HIPs by graduation
Our charge: Broaden Access to HIPs

**Curricular:**
- ✓ Course-based
- ✓ Focus on HIPs-ready courses that impact a large number of students

**Co-Curricular:**
- ✓ Program-based
- ✓ Focus on HIP-ready programs that have a stable group of student participants
Fall 2016 HIPs Courses

College of the Arts
ART 104 - 3D Design

Mihaylo College of Business & Economics
MGMT 465A - New Venture Creation and Funding
MKTG 353 - Marketing Information Technology
BUAD 300 - Professional and Career Development
BUAD 301 - Advanced Business Communications

College of Communications
HCOM 102 - Public Speaking
HCOM 235 - Essentials of Argumentation

College of Engineering & Computer Science
CPSC 120 - Introduction to Programming
EGCP 180 - Digital Logic and Computer Structures
EGME 304 - Thermodynamics
EGME 333 - Fluid Mechanics
EGCE 430 - Structural Steel Design

College of Education
EDEL 315 - Introduction to Elementary Classroom Teaching

College of Health & Human Development
HESC 101 - Personal Health
CAS 301 - Inquiry and Methodology in Development

College of Humanities & Social Sciences
ENG 101 - Beginning College Writing
ENG 300 - Analysis of Literary Forms
ENG 301 - Advanced College Writing

College of Natural Science & Mathematics
MATH 110 - Mathematics for Liberal Arts Students
MATH 115 - College Algebra
MATH 125 - Precalculus

Co-Curricular Programs
UNIV 115 - Optimizing the Student-Athlete Experience
Resident Advisors
HHD Theme Housing
Arts District Theme Housing
ASI Student Leaders
FSL Presidents
CSLP Directors
HIPs Participation: Curricular

- **Fall 2015**
  - 5 Colleges
  - 22 Faculty
  - 35 Classes
  - 980 students

- **Spring 2016**
  - 8 Colleges
  - 37 Faculty
  - 58 Classes
  - 1431 students

- **Fall 2016**
  - 8 Colleges
  - 68 Faculty
  - 102 Classes
  - 4026 students

- **Spring 2016**
  - 8 Colleges
  - 68 Faculty
  - 138 Classes
  - 3852 students
HIPs Participation Simulation for Fall 2009 and 2010 Cohort

Exceeding CSUF’s Strategic Plan Goal

First Time Freshman - Fall 2009 - Two or More HIPs Classes: 85.20%
First Time Freshman - Fall 2010 - Two or More HIPs Classes: 85.12%
Undergraduate Transfer - Fall 2009 - One or More HIPs Classes: 72.79%
Undergraduate Transfer - Fall 2010 - One or More HIPs Classes: 73.61%
Undergraduate Transfer - Fall 2009 - Two or More HIPs Classes: 36.18%
Undergraduate Transfer - Fall 2010 - Two or More HIPs Classes: 36.06%
Quantity ≠ Quality

Define HIP Characteristics
Assessment HIP Impact
Track HIP Student Experiences
HIP Characteristics

- Interaction
- Diversity
- Time & Effort
- Reflective Learning
- Feedback
- Experiential Learning
HIPs Assessment: Triangulated Approach to Ensure Quality

**HIPs Characteristics**
- Data Source:
  - Faculty report
  - App Tracking
  - Post Survey

**Student Participation**
- Data Source:
  - App Tracking
  - Faculty report

**Student Learning & Success**
- Data Source:
  - Pre/Post Assignment
  - Retention & Graduation
HIPs Impact: Positive Learning Gain within the HIP courses

- **All Students**: 12.2% Average Learning Gain
- **Male**: 5.2% Average Male Learning Gain
- **Female**: 19.7% Average Female Learning Gain
HIPs Impact: HIPs Characteristics = Learning Gain

<table>
<thead>
<tr>
<th># of feedback</th>
<th>Actual Learning Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 times</td>
<td>0%</td>
</tr>
<tr>
<td>6-10 times</td>
<td>6.5%</td>
</tr>
<tr>
<td>11-20 times</td>
<td>13%</td>
</tr>
<tr>
<td>More than 20 times</td>
<td>19.5%</td>
</tr>
<tr>
<td></td>
<td>26%</td>
</tr>
</tbody>
</table>
HIPs Impact: Better Learning = Higher Retention

Average Learning Gain

- Students not retained
- Students retained
HIPs Impact: Positive Student Experience

Percent of student survey responses regarding the usefulness of HIPs
What Happens in a HIP?
HIPS Tracking

Real Time Data Collection through App

Data Integration into Learning Management System

PeopleSoft Tracking and HIPS Designation
HIPs App: Harnessing the Power of an Existing App

**iFullerton**
Students are able to register for their classes directly from their mobile device.

**Titanium Login**
Students can access their LMS for their classes.

**Class Registration**

Students are able to register for their classes directly from their mobile device.

**Parking Information**
Users can check information about campus parking structures.

**HIPs Tracking**
Customizable Tracking for Individual HIP Classes/Programs
### High Impact Practices Activity Report

**Fall 2016 BUAD 300-04 20352**

#### Attendance

<table>
<thead>
<tr>
<th>CWID</th>
<th>Name</th>
<th>No</th>
<th>Attendance</th>
<th>Time and effort invested by students</th>
<th>Interactions - faculty, staff, peers, etc.</th>
<th>Opportunities to experience diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>Reading/working on assignments</td>
<td>Preparation for presentation</td>
<td>Interactions with faculty in class</td>
<td>Engage in in-class activities</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td></td>
<td>22</td>
<td>12</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td></td>
<td>20</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>15</td>
<td></td>
<td>14</td>
<td>3</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td></td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>15</td>
<td></td>
<td>16</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>18</td>
<td></td>
<td>18</td>
<td>12</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>
Tracking examines the implementation of HIPs Characteristics

HIPs Characteristics: **Time & Effort**

*Tracking results for all HIP classes combined*
Tracking examines the implementation of HIPs Characteristics

HIPs Characteristics:

Interaction (with Faculty)

Tracking results for individual class sections
What do Users say?

HIPs Tracking
For Students…

- Majority of students found the app to be “good” or “excellent”
- A useful tool to document specific desirable engagement experiences
- A helpful way to understand and meet faculty expectations
- Need in-depth explanations for each HIP characteristic
- Need periodic reminders to use the app
For Faculty…

- Nearly all HIPs instructors choose to use the app
- An easy way to track student engagement in key activities
- Provides useful data to inform HIPs implementation
- Need periodic reminders to use the app - for themselves and for students
- Need incentives to encourage student use, but still keep the self-report accurate
Questions?

assessment@fullerton.edu