Exploring Integrative Learning within Residential Learning Communities

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Year One STORY INTEGRATIVE LEARNING
  introduction
  purpose of the study
  research question(s)

PATH TO INTEGRATIVE LEARNING
  lit review, AAC&U,
  pre/post survey, assignment

FUTURE STEPS
  findings, data, conclusion
Multi-Institutional Study

Residential Learning Communities as a High-Impact Practice:
- Three-summer research seminar
- Facilitates multi-institutional research on types of Residential Learning Communities (RLCs)
- Projects use mixed-methods approach to conduct research

Our Research Study:
- Established collaboration and integrative learning themes at all 6 participating universities
- AAC&U Integrative Learning rubric
- Focus of this presentation - The integrative learning component of this study

Center for Engaged Learning
What is the relationship between academic and student affairs collaboration and the practice of integrative learning in residential learning communities (RLCs)?

Specifically...
How can we measure students’ practice of integrative learning in RLCs?
LITERATURE • Integrative Learning

• What is integrative learning? (Barber, 2012)

• Why integrative learning? (DeZure et al., 2005; Inkelas & Soldner, 2011; Newell, 2010)

• Integrative vs. interdisciplinary learning (Boix Mansilla, 2008; Booth et al., 2009)

• RLCs and integrative learning (Klein, 2005; Mahoney & Schamber, 2011)

• Assessment (AAC&U, 2009)
**Integrative Learning Pre-Survey**
*(Designed to assess student perception)*

- Administered at the start of the academic year

- Original survey - 21 five-point Likert Scale items on pre- and post-survey instrument created based on language used in AAC&U’s Integrative Learning VALUE Rubric.

- Survey designed to assess 3 categorical values:
  1) Self-reflection and assessment
  2) Connections between classroom learning and out of classroom experiences
  3) Connections across academic classes and subjects
Integrative Survey Validity and Reliability

- Validated the Survey at Cal Poly – 140+ students
- Reliability – Principal Component Analysis

<table>
<thead>
<tr>
<th>Item Statistics</th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 Mean</td>
<td>.811</td>
<td>4</td>
</tr>
<tr>
<td>Q1 Std. Deviation</td>
<td>.791</td>
<td>3</td>
</tr>
<tr>
<td>Q1 N</td>
<td>.765</td>
<td>4</td>
</tr>
</tbody>
</table>

Reliability Statistics

Assessment and Self-Reflection

Connections to Disciplines

Transfer
METHODOLOGY ● Principal Components Analysis

Principal Component Analysis on the Integrative Learning Survey Instrument

<table>
<thead>
<tr>
<th>Questions</th>
<th>Components</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Q1</td>
<td></td>
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<tr>
<td>Q2</td>
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<tr>
<td>Q3</td>
<td>.409</td>
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<td>Q4</td>
<td>.507</td>
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<td>Q5</td>
<td>.403</td>
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<td>Q6</td>
<td>.620</td>
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<td>Q7</td>
<td>.666</td>
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<td>Q8</td>
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<td>Q9</td>
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<td>Q10</td>
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<td>Q11</td>
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<td>Q12</td>
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<td>Q13</td>
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<td>Q19</td>
<td></td>
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<tr>
<td>Q20</td>
<td>.369</td>
</tr>
<tr>
<td>Q21</td>
<td></td>
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</table>
**Integrative Learning Post-Survey**
*(Designed to assess student perception)*

- Administered at the conclusion of the academic year
- Post Principal Component Analysis Categorical Values:
  1) Connections to Experience
  2) Connections to Disciplines/Courses
  3) Reflection and Self Assessment
  4) Transfer
## FINDINGS

**Paired Samples t Test**

<table>
<thead>
<tr>
<th>Categorical Value</th>
<th>Pre-Survey n = 126</th>
<th>Post-Survey n = 126</th>
<th>t</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transfer</strong></td>
<td>M = 13.71 SD = 3.408</td>
<td>M = 14.61 SD = 3.618</td>
<td>-2.629</td>
<td>.010</td>
</tr>
<tr>
<td><strong>Connections to Experience</strong></td>
<td>M = 21.94 SD = 4.270</td>
<td>M = 22.75 SD = 4.578</td>
<td>-1.976</td>
<td>.050</td>
</tr>
<tr>
<td><strong>Connections to Disciplines/Courses</strong></td>
<td>M = 9.14 SD = 2.845</td>
<td>M = 10.34 SD = 2.737</td>
<td>-4.435</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Assessment and Self-Reflection</strong></td>
<td>M = 14.90 SD = 3.153</td>
<td>M = 15.59 SD = 3.120</td>
<td>-2.292</td>
<td>.024</td>
</tr>
</tbody>
</table>
FINDINGS

● There was a statistically significant growth in student perception pertaining to their integrative learning practices across all four categorical values.

● Difference in Means Per Categorical Value:
  ○ Transfer - 13.71 (Pre) to 14.61 (Post)
  ○ Connections to Experience - 21.94 (Pre) to 22.75 (Post)
  ○ Connections to Disciplines - 9.14 (Pre) to 10.34 (Post)
  ○ Assessment and Self Reflection - 14.90 (Pre) to 15.59 (Post)
Writing Assignment

- **Integrative Learning Writing Assignment**
  *assessing student performance*

  - Pilot year – Used common evaluative criteria but assignment varied across institutions

  - Year 2 – Developed common assignment to be used across all 6 institutions that is designed to address **four of the learning outcomes** outlined in AAC&U’s Integrative Learning VALUE rubric:
    1) Connections to Experience
    2) Connections to Disciplines
    3) Reflection and Self-Assessment
    4) Transfer

  - Final sample selection will only include participants who complete each of these data points
Is there a relationship between Academic & Student Affairs collaboration and the practice of integrative learning in RLCs?

i. How is collaboration in RLCs between academic and student affairs defined?

ii. Which elements of collaboration between academic and students affairs foster the practice of integrative learning?

iii. How can we measure students’ practice of integrative learning in RLCs?

iv. Is there a relationship between student self-reported gains or losses in integrative learning and direct measures of integrative learning.

v. Do student self-reported gains or losses in integrative learning predict direct measures of integrative learning?
YEAR 2  ●  ACCOMPLISHMENTS

- Revision of Pre- and Post-Survey Instrument
- Administration of a Pre-Survey in Fall 2018 on each individual campus
- Compilation of data on the pre-survey from all six campuses
- Creation of a common integrative assignment to be used on all 6 campuses
- Norming of the AAC&U Integrative Learning Value Rubric amongst the research team on this assignment from upper-class students at two different institutions represented in this study
CONCLUSION • Next Steps

- Administration of the post-survey instrument in April/May
- Administration and collection of student-produced course assignments from all 6 campuses.
- 2nd norming of the AAC&U Integrative Learning VALUE rubric
- Scoring of all collected assignments based on this rubric
- Data analysis in the form of a paired samples t test and independent samples t test to answer research sub-questions #3 and #4 and a Pearson correlation to answer research sub-question #5.
- Examine our findings connected to student experiences with integrative learning to explore our central research question, “is there a relationship between academic affairs and student affairs collaboration and the practice of integrative learning in RLCs?”
References


Please remember to submit your evaluation on Guidebook!

https://guidebook.com/g/fye19/
This project was supported by the 2017-2019 Research Seminar on Residential Learning Communities as a High-Impact Practice, a multi-institutional research initiative hosted by Elon University’s Center for Engaged Learning (www.CenterForEngagedLearning.org).

THANK YOU - Questions
INTEGRATIVE LEARNING REFLECTION PAPER PROMPT

Reflection Paper: My First Year

During your time at [insert college name], you have been challenged to integrate knowledge gained both in and out of the classroom to other experiences and situations. This way of being, called integrative learning, is not just one centered in your college experience, but in all facets of life during your lifetime. It involves being able to do the following:

- Make connections between your experiences and academic knowledge,
- Consider a variety of perspectives on a discipline or topic,
- Adapt and apply skills, abilities, theories, methodologies gained in one situation to new situations, and
- Demonstrating a sense of self as a learner through reflection.

The Assignment:

With this in mind, you are to write a 1,000-1,100 word culminating reflection on your first year at [insert college name]. When writing this paper, you should consider the following questions:

- Reflect on the classes you took in [insert RLC name] over the course of the year. Reflecting on the topics covered, where can you make connections between content covered in one course to another course(s) you took?
- Did you find yourself applying knowledge from a course to your experiences outside the classroom in conversations, assignments, jobs, or other ways? If yes, please describe and give specific examples.
- Can you think of examples of times where you applied knowledge gained in one context to a new, different context? If yes, please describe and give specific examples.
- What have you learned about yourself in regard to your individual learning style during your first year? Please describe the courses, experiences, and/or situations that contributed to this understanding.

Considerations:

Your reflection could take into consideration all aspects of your first-year experience. Keep in mind:

- Your academic experiences- including but not limited to:
  - Courses you have taken
  - Projects or assignments you have worked on
  - Lectures or events you have been required to attend for a class
  - Relationships with faculty and advisors
  - Components of your [insert RLC name] experience (ex. [insert brief description of what these are])
- Your personal experiences- including but not limited to:
  - Relationships you have formed with peers, residential life staff, and/or faculty in residence
  - Involvement in campus clubs, activities, organizations and/or out of the classroom experiences
  - Participation in service
  - Living on campus
  - Events you have attended

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1 This assignment will be administered to students on our campuses and will be evaluated using an adapted version of the AAC&U Value Rubric. Our version includes the sections on Connections to Experience, Connections to Discipline, Transfer, and Reflection and Self-Assessment. We have a separate document that includes the administration protocol and planned rubric norming activity.
**INTEGRATIVE LEARNING VALUE Rubric**

**Definition**
Integrative learning is an understanding and a disposition that a student builds across the curriculum and cocurriculum, from making simple connections among ideas and experiences to synthesizing and transferring learning to new, complex situations within and beyond the campus.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

<table>
<thead>
<tr>
<th>Connections to Experience</th>
<th>Capstone 4</th>
<th>Milestones 2</th>
<th>Benchmark 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connects relevant experience and academic knowledge</td>
<td>Meaningfully synthesizes connections among experiences outside of the formal classroom (including life experiences and academic experiences such as internships and travel abroad) to deepen understanding of fields of study and to broaden own points of view.</td>
<td>Effectively selects and develops examples of life experiences, drawn from a variety of contexts (e.g., family life, artistic participation, civic involvement, work experience), to illuminate concepts/theories/frameworks of fields of study.</td>
<td>Identifies connections between life experiences and those academic tests and ideas perceived as similar and related to own interests.</td>
</tr>
<tr>
<td>Connections to Discipline</td>
<td>Independently creates wholes out of multiple parts (synthesizes) or draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.</td>
<td>Independently connects examples, facts, or theories from more than one field of study or perspective.</td>
<td>When prompted, connects examples, facts, or theories from more than one field of study or perspective.</td>
</tr>
<tr>
<td>Sews (makes) connections across disciplines, perspectives</td>
<td></td>
<td>When prompted, presents examples, facts, or theories from more than one field of study or perspective.</td>
<td></td>
</tr>
<tr>
<td>Transfer</td>
<td>Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations</td>
<td>Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations to solve problems or explore complex issues in original ways.</td>
<td>Uses skills, abilities, theories, or methodologies gained in one situation in a new situation to contribute to understanding of problems or issues.</td>
</tr>
<tr>
<td>Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations</td>
<td></td>
<td>Uses, in a basic way, skills, abilities, theories, or methodologies gained in one situation in a new situation.</td>
<td></td>
</tr>
<tr>
<td>Reflection and Self-Assessment</td>
<td>Envisions a future self (and possibly makes plans that build on past experiences) that have occurred across multiple and diverse contexts.</td>
<td>Evaluates changes in own learning over time, recognizing complex contextual factors (e.g., works with ambiguity and risk, deals with frustration, considers ethical frameworks).</td>
<td>Articulates strengths and challenges (within specific performances or events) to increase effectiveness in different contexts (through increased self-awareness).</td>
</tr>
<tr>
<td>Demonstrates a developing sense of self as a learner, building on prior experiences to address new and challenging contexts (may be evident in self-assessment, reflection, or creative work)</td>
<td></td>
<td>Describes own performances with general descriptors of success and failure.</td>
<td></td>
</tr>
</tbody>
</table>

This rubric was created using the Association of American Colleges and Universities (AAC&U) Integrative Learning VALUE Rubric. Retrieved from https://www.aacu.org/value-rubrics