Research Update: A Mixed-Method Approach to Evaluating Themed Learning Communities

Themed Learning Communities (TLC Retreat)
March 22, 2013
Indianapolis, Indiana
Presentation Overview

• Methods

• Results
  – Retention & Graduation Rates
  – Grade Point Averages
  – Student Engagement and Learning Integration
  – Satisfaction & Self-Reported Learning Gains

• Implications & Next Steps
Program Growth

• Fall 2010
  – 724 students participated in the TLC program.
  – 32 sections offered.

• Fall 2011
  – 749 students participated in the TLC program.
  – 37 sections offered.

• Fall 2012
  • 829 students participated in TLC program (30% of FT, FT Cohort)
  • 39 sections offered
Assessment Methods

- Employ Mixed-Method designs using qualitative and quantitative methods.
- Attempt to understand how TLCs influence students’ success levels (e.g., retention rates, GPAs).
- Administer end-of-course questionnaires (designed to provide information on students’ perceptions of course benefits, learning outcomes, satisfaction levels, and why they decided to enroll).
- Administer National Survey of Student Engagement (NSSE) and analyze responses to items aligned with TLC goals.
- Conduct focus groups and individual interviews.
- Collect direct measures of student learning (e.g., Integration and Application of Knowledge embedded course assessment as part of the 2012 Reaccreditation efforts).
Mixed-Method Approaches

• Allows researchers to:
  – Triangulate findings from multiple sources.
  – Converge or corroborate findings.
  – Strengthen the internal validity of the studies.
  – Create elaborated understandings of complex constructs such as “engagement” or “integrative learning.”
National Literature

• Learning communities have been advocated as effective interventions for enhancing:

  – **Student Retention** (Tinto, 2003)

  – **Engagement Levels**
    (Yancy, Sutton-Haywood, Hermitte, Dawkins, Rainey, and Parker, 2008; Zhao and Kuh, 2004),

  – **Student Learning and Academic Success**
    (Hegler, 2004; Henscheild, 2004; Kuh, 2008; Stassen 2003),

  – **Opportunities for Service Learning**
    (Oates and Leavitt, 2003),

  – **Critical Thinking and Integrative Learning**
Integrative Learning & Thinking

• “An approach that highlights the importance of addressing real-world issues relevant to students’ life experiences and interests.” (Hinckley, 2010).

• “Connecting skills and knowledge from multiple sources and experiences; applying theory to practice in various settings; utilizing diverse and even contradictory points of view; and, understanding issues and positions contextually.” (A Statement on Integrative Learning, AACU, 2004)

• “...an understanding and a disposition that a student builds across the curriculum and co-curriculum, from making simple connections among ideas and experiences to synthesizing and transferring learning to new, complex situation within and beyond the campus.” (AACU VALUE Rubric, 2007).
TLCs and Retention

“While improved retention is a welcome consequence of learning-community work, it has never been its aim. In the push to improve student retention, it is easy to overlook what research tells us:

Students persist in their studies if the learning they experience is meaningful, deeply engaging, and relevant to their lives.” (Lardner & Malnarich, 2008).
## TLC Participation and Academic Success Outcomes (2011)

<table>
<thead>
<tr>
<th></th>
<th>First Year GPA</th>
<th>% Below 2.0 First-Year GPA</th>
<th>One-Year Retention Rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC</td>
<td>2.70</td>
<td>20%</td>
<td>76%</td>
</tr>
<tr>
<td>Non-Participants</td>
<td>2.57</td>
<td>24%</td>
<td>73%</td>
</tr>
<tr>
<td>Overall</td>
<td>2.61</td>
<td>23%</td>
<td>74%</td>
</tr>
</tbody>
</table>

Note 1: Missing cases were excluded.

Note 2: Bolded items are statistically significant based on an independent samples t-test or chi-square test results ($p < .05$).

* Retention rate based on IUPUI Indianapolis only (includes all degree seeking – Bachelors, Associates, and Certificates).
## Logistic Regression Predicting One Year Retention

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>Wald Statistic</th>
<th>95% CI</th>
<th>p</th>
<th>Odd Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S GPA</td>
<td>1.15</td>
<td>.13</td>
<td>77.37</td>
<td>2.44, 4.06</td>
<td>.000</td>
<td>3.15</td>
</tr>
<tr>
<td>SAT Score</td>
<td>.00</td>
<td>.00</td>
<td>2.21</td>
<td>1.00, 1.00</td>
<td>.137</td>
<td>1.00</td>
</tr>
<tr>
<td>First Generation</td>
<td>-.10</td>
<td>.10</td>
<td>1.03</td>
<td>.74, 1.10</td>
<td>.310</td>
<td>.90</td>
</tr>
<tr>
<td>Female</td>
<td>-.01</td>
<td>.10</td>
<td>.01</td>
<td>.81, 1.21</td>
<td>.932</td>
<td>.99</td>
</tr>
<tr>
<td>Low Income</td>
<td>-.18</td>
<td>.10</td>
<td>3.34</td>
<td>.68, 1.01</td>
<td>.068</td>
<td>.83</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.S GPA</td>
<td>1.17</td>
<td>.13</td>
<td>79.33</td>
<td>2.48, 4.14</td>
<td>.000</td>
<td>3.21</td>
</tr>
<tr>
<td>SAT Score</td>
<td>.00</td>
<td>.00</td>
<td>2.51</td>
<td>1.00, 1.00</td>
<td>.113</td>
<td>1.00</td>
</tr>
<tr>
<td>First Generation</td>
<td>-.11</td>
<td>.10</td>
<td>1.30</td>
<td>.73, 1.09</td>
<td>.255</td>
<td>.89</td>
</tr>
<tr>
<td>Female</td>
<td>-.02</td>
<td>.10</td>
<td>.04</td>
<td>.80, 1.20</td>
<td>.835</td>
<td>.98</td>
</tr>
<tr>
<td>Low Income</td>
<td>-.18</td>
<td>.10</td>
<td>3.11</td>
<td>.69, 1.02</td>
<td>.078</td>
<td>.84</td>
</tr>
<tr>
<td>TLC</td>
<td>.28</td>
<td>.11</td>
<td>7.16</td>
<td>1.08, 1.63</td>
<td>.007</td>
<td>1.33</td>
</tr>
</tbody>
</table>

TLC participants have a 33% better odds of being retained compared to non-participants (based on the odds ratio).
## ANCOVA Results: 2011 TLC Participation and Cumulative One-Year GPA

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>First-Year GPA</th>
<th>Adjusted First-Year GPA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC</td>
<td>737</td>
<td>2.69</td>
<td>2.74</td>
</tr>
<tr>
<td>Non-Participants</td>
<td>1622</td>
<td>2.55</td>
<td>2.53</td>
</tr>
<tr>
<td>Overall</td>
<td>2359</td>
<td>2.60</td>
<td></td>
</tr>
</tbody>
</table>

Bolded items are statistically significant based on Analysis of Covariance (ANCOVA) results ($p < 0.0001$). Covariates included: HS GPA, SAT Score, First Generation, Low Income, Gender.
<table>
<thead>
<tr>
<th></th>
<th>TLC PARTICIPANTS</th>
<th>NON-PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>First-Year GPA</td>
</tr>
<tr>
<td>Female</td>
<td>481</td>
<td>2.82</td>
</tr>
<tr>
<td>First-Generation</td>
<td>303</td>
<td>2.69</td>
</tr>
<tr>
<td>Pell Grant</td>
<td>316</td>
<td>2.59</td>
</tr>
<tr>
<td>African American</td>
<td>82</td>
<td>2.34</td>
</tr>
<tr>
<td>Asian American</td>
<td>14</td>
<td>3.19</td>
</tr>
<tr>
<td>Latino/a</td>
<td>35</td>
<td>2.76</td>
</tr>
<tr>
<td>25 or Older</td>
<td>7</td>
<td>3.30</td>
</tr>
<tr>
<td>Conditional Admit</td>
<td>42</td>
<td>2.09</td>
</tr>
</tbody>
</table>
Graduation figures include bachelor’s and associate degrees awarded through August of the appropriate year, and certificates awarded through December of the appropriate year.
## TLC Participation & Academic Success Outcomes (2012)

<table>
<thead>
<tr>
<th></th>
<th>Fall GPA</th>
<th>% Below 2.0 Fall GPA</th>
<th>Fall-Spring Retention Rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC</td>
<td>2.86</td>
<td>17%</td>
<td>88%</td>
</tr>
<tr>
<td>Nonparticipants</td>
<td>2.80</td>
<td>17%</td>
<td>89%</td>
</tr>
<tr>
<td>Overall</td>
<td>2.84</td>
<td>17%</td>
<td>89%</td>
</tr>
</tbody>
</table>

**Note 1**: Missing cases were excluded.

**Note 2**: Bolded items are statistically significant based on an independent samples t-test or chi-square test results ($p < .05$).

* Retention rate based on IUPUI Indianapolis only (includes all degree seeking – Bachelors, Associates, and Certificates).
### ANCOVA Results: TLC Participation & Cumulative Fall GPA (2012)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Fall GPA</th>
<th>Adjusted Fall GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC</td>
<td>824</td>
<td>2.89</td>
<td>2.86</td>
</tr>
<tr>
<td>Non-Participants</td>
<td>1629</td>
<td>2.80</td>
<td>2.85</td>
</tr>
<tr>
<td>Overall</td>
<td>2453</td>
<td>2.85</td>
<td></td>
</tr>
</tbody>
</table>

Bolded items are statistically significant based on Analysis of Covariance (ANCOVA) results ($p < .0001$). Covariates included: HS GPA, SAT Score, First Generation, Low Income, Gender.
High Impact Practices

“When I am asked, what one thing we can do to enhance student engagement and increase student success? I no have an answer: make it possible for every student to participate in at least two high impact activities during his or her undergraduate program, one in the first year, and one taken later in relation to the major field. The obvious choices for incoming students are first-year seminars, learning communities, and service learning” (George Kuh, 2008).
## Hierarchical Multiple Regression: High Impact Practices Cumulative FY GPA (N=2028)

<table>
<thead>
<tr>
<th>Variable</th>
<th>( b )</th>
<th>( SE , b )</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS GPA</td>
<td>1.04</td>
<td>.06</td>
<td>.41***</td>
</tr>
<tr>
<td>SAT Score</td>
<td>.00</td>
<td>.00</td>
<td>.12***</td>
</tr>
<tr>
<td>Student Motivation</td>
<td>.01</td>
<td>.00</td>
<td>.07***</td>
</tr>
<tr>
<td>Low Income</td>
<td>-.24</td>
<td>.04</td>
<td>-.12***</td>
</tr>
<tr>
<td>Gender</td>
<td>.11</td>
<td>.04</td>
<td>.06**</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS GPA</td>
<td>1.04</td>
<td>.06</td>
<td>.41***</td>
</tr>
<tr>
<td>SAT Score</td>
<td>.00</td>
<td>.00</td>
<td>.12***</td>
</tr>
<tr>
<td>Student Motivation</td>
<td>.01</td>
<td>.00</td>
<td>.06**</td>
</tr>
<tr>
<td>Low Income</td>
<td>-.24</td>
<td>.04</td>
<td>-.12***</td>
</tr>
<tr>
<td>Gender</td>
<td>.10</td>
<td>.04</td>
<td>.05**</td>
</tr>
<tr>
<td>Summer Bridge-TLC</td>
<td>.29</td>
<td>.08</td>
<td>.10***</td>
</tr>
<tr>
<td>FYS-TLC</td>
<td>.25</td>
<td>.07</td>
<td>.10***</td>
</tr>
<tr>
<td>Summer Bridge (no FYS-TLC)</td>
<td>.22</td>
<td>.09</td>
<td>.06**</td>
</tr>
<tr>
<td>FYS (no Summer Bridge or TLC)</td>
<td>.09</td>
<td>.06</td>
<td>.05</td>
</tr>
</tbody>
</table>

\( R^2 = .271 \) for Step 1: \( \Delta R^2 = .013 \) for Step 2 (\( p < .001 \)). ***\( p < .001 \), **\( p < .01 \), * \( p < .05 \)
Limitations

• A noteworthy limitation of these investigations is that students self-select into TLCs and selection bias may have affected the internal validity of this study. Thus, the ability to make causal inferences based on the information is limited.

• It is possible that the positive effects of TLCs on academic performance are due to the fact that students who decide to enroll may have differed in substantial ways from students who decided not to enroll and these differences (not TLCs) may have caused the positive outcomes.

• Although important variables were treated as covariates in the statistical models, it is difficult to adjust for all possible self-selection factors using traditional statistical techniques and when experimental designs using random assignment are not employed.
2012 National Survey of Student Engagement

Significant differences between TLC students (122) in comparison to IUPUI non-TLC students (437) and notably different compared to NSSE Public Research Institutions group:

**Diversity**
- Included diverse perspectives in class discussions or writing assignments
- Institutional emphasis on encouraging contact among students from different economic, social, and racial or ethnic backgrounds
- Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values

**Interdisciplinary Learning**
- Worked on a paper or project that required integrating ideas or information from various sources

**Service & Out of Class Learning**
- Worked with classmates outside of class
- Participated in a community-based (e.g., service learning) project as part of regular course.
- Community service or volunteer work

**Quality of Relationships**
- With Other Students
- With Faculty
- With Administrative personnel and offices

**Academic Challenge**
- Made class presentations

**More Institutional Emphasis**
- Providing the support students need to help them thrive socially
- Helping students cope with nonacademic responsibilities (e.g., work, family, etc.)
- Attending campus events and activities
NSSE Benchmarks:

TLC Students Higher than IUPUI Students and Research Public Institutions

Active and Collaborative Learning
Enriching Academic Experiences
Supportive Campus Environment
TLC End-of-Course Questionnaire

- **Sense of Belonging and Community $\alpha = .88$**
  - “Form one or more friendships that I will maintain after the Semester”
  - “Feel a sense of belonging at IUPUI”

- **Integrative Thinking and Learning $\alpha = .91$**
  - “Understood connections between different disciplines and courses.”
  - “Develop a better understanding of complex real world social problems and issues.”

- **Peer Interactions $\alpha = .73$**
  - “Discuss ideas from the TLC courses with peers outside of class”
  - “Exchange ideas with a student whose views were different from your own”

- **Communication Skills $\alpha = .81$**
  - “Became more effective with communicating my thoughts in writing.”
  - “Became more effective with communicating my thought in speaking.”

- **Faculty Interactions (only 1 item)**
  - “Discussed course topics, ideas, or concepts with a faculty member outside of class”
Which Course Components make Significant Impact on Student Satisfaction with Learning Experiences?

• **Integrative Thinking and Learning**
  – Understand connections between different disciplines and courses
  – Develop a better understanding of complex real world social problems or issues
  – Apply what I learned in one course to another course in my learning community
  – Apply knowledge gained in learning community courses to broader community or social issues
  – Apply course concepts to my own life experiences

• **Sense of Belonging and Community**
  – Form one or more friendships that I will maintain after the Semester
  – Feel a sense of belonging at IUPUI
  – Feel connected with other IUPUI students
  – See myself as part of the IUPUI community

• **Peer Interactions**
  – Discussed ideas from the TLC courses with peers outside of class.
  – Exchanged ideas with students whose views are different from my own.
Which Course Components make Significant Impact on Intention to Persist at IUPUI?

• Sense of Belonging and Community
  – Form one or more friendships that I will maintain after the Semester
  – Feel a sense of belonging at IUPUI
  – Feel connected with other IUPUI students
  – See myself as part of the IUPUI community
TLC Questionnaire Results 2012 (N=661)

• 75% reported that they were “Satisfied” or “Very Satisfied” with their TLC Experience.

• 94% reported that they completed a graded assignment (paper, project, speech, etc.) that required integrating ideas, strategies, or skills from TLC classes.

• 61% reported that they participated in a community service or volunteer activity.

• 65% reported that they participated in a campus activity (speaker, film or event outside of class on campus).

• 50% reported that they participated in an activity or event in the Indianapolis community (that did not involve service).
## Top 5 Self-Reported Benefits of 2012 TLCs

**Rank-Ordered by Mean Value**

<table>
<thead>
<tr>
<th>Benefit</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form one or more friendships that I will maintain after the Semester</td>
<td>644</td>
<td>4.30</td>
<td>1.01</td>
</tr>
<tr>
<td>Apply what I learned in one course to another course in my learning community</td>
<td>641</td>
<td>4.00</td>
<td>1.01</td>
</tr>
<tr>
<td>Feel connected with other IUPUI students</td>
<td>644</td>
<td>3.99</td>
<td>1.07</td>
</tr>
<tr>
<td>Feel a sense of belonging at IUPUI</td>
<td>643</td>
<td>3.95</td>
<td>1.10</td>
</tr>
<tr>
<td>See myself as part of the IUPUI community</td>
<td>646</td>
<td>3.93</td>
<td>1.12</td>
</tr>
</tbody>
</table>

Based on a 5-point response scale where 1=Very Little, 2=Little, 3=Some, 4=Much, and 5=Very Much.
## Self-Reported Frequencies 2012 TLCs
### Rank-Ordered by Mean Value

<table>
<thead>
<tr>
<th>Activity</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange ideas with a student whose views were different from your own</td>
<td>635</td>
<td>2.97</td>
<td>0.88</td>
</tr>
<tr>
<td>Actively discuss complex issues and ideas</td>
<td>645</td>
<td>2.96</td>
<td>0.84</td>
</tr>
<tr>
<td>Connect examples, facts, or theories from more than one field of study or discipline</td>
<td>643</td>
<td>2.88</td>
<td>0.83</td>
</tr>
<tr>
<td>Discuss ideas from the TLC courses with peers outside of class</td>
<td>634</td>
<td>2.86</td>
<td>0.93</td>
</tr>
<tr>
<td>Explore complex issues by connecting ideas from multiple classes or disciplines</td>
<td>644</td>
<td>2.80</td>
<td>0.83</td>
</tr>
<tr>
<td>Apply course ideas to explore difficult social problems</td>
<td>641</td>
<td>2.72</td>
<td>0.82</td>
</tr>
<tr>
<td>Discuss course topics, ideas, or concepts with a faculty member outside of class</td>
<td>641</td>
<td>2.55</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Based on a 5-point response scale where 1=Never, 2=Sometimes, 3=Often, and 4=Very Often
Quality of Experiences Over Time

- Applied what learned in one course to another course in TLC
- Understood connections between different disciplines and courses.
- Applied knowledge gained in TLC in service to the broader community and social issues.
- Formed friendships that will maintain

14. Overall Satisfaction with TLC experience?
2012 Qualitative Findings

- Examination of Students’ Open-ended Responses to TLC Program Questionnaire.

- Provides a holistic “birds-eye view” of TLCs

- Qualitative Data is very Rich – Goal is to provide immediate feedback.

- Allows for us to understand students’ Thoughts & Perceptions in Their Own Words.
Findings

• Focuses on two (2) main questions:
  – **How TLC Experiences Contributed to Learning:**
  – **Suggestions for Improving the TLC Program:**

• Analyzed – 2,976 Student Comments.

• Coding process used in conjunction with ATLAS.ti (Corbin & Strauss, 1990).

• Information available at: (research.uc.iupui.edu).
Coding Procedures

Methodologically, coding is more than merely indexing data. Coding is simply the procedure for associating code words with selections of data.

(Creswell, 2007; Patton, 2002; Strauss & Corbin, 1990)
Facilitated Coding...Krippendorf (2013) “computers do not perform the analysis but aid...”

Organized Documents & Point-and-Click Coding

Co-Occurrence and Object Crawler Instruments

CAQDAS – ATLAS.ti one of many...

Content-Analysis.de

American Evaluation Association - Qualitative Software
“Please describe how your TLC experience contributed to your learning:” (n = 577)

Major Themes....
College Transition Assistance

• “It gave me an idea of how to approach college and the demand that comes with it”.

• “Being an out of state student, it has helped me to adapt to the culture and different education styles here in the U.S.A.”

• “It made me feel more comfortable with my transition to college and allowed me to meet people in my major”.

• “TLC helped me see how I need to grow out of my high school self into a college student & prepared me for the rest of college”.
Meeting New People & Developing Connections

• “Easy to network with other students”.

• “It builds great friendships and relationships between peers and teachers”.

• “It was nice, I met a lot of people and made good friends”.

• “Getting to know other kids with the same interest as me was very helpful and reassuring for me to stay with this program”.
Developed Critical Thinking Skills

• “It helped me develop different ways of processing information”.

• “The TLC contributed to my learning by forcing Critical Thinking and helping us apply it”.

• “The TLC gave me different ways to look at a problem and different ways to solve them”.

• “My TLC experience allowed me to become a better critical thinker and therefore made learning a lot more efficient”.
Linked Courses – Integrated Experiences

• “The courses are very connected which really puts the concepts in perspective”.

• “It helped me better see the relationships between different disciplines”.

• “My TLC experience allowed me to tie together my classes for a more meaningful learning environment. It helped me connect three seemingly different courses”.

• “It really helped me learn topics and ideas that were used in all classes and made it easier with connecting similar ideas”.
Developed Peer Support Networks

• It gave me a support group”.

• “Made close bonds with people and we studied together. Improved my exam scores”.

• “It helped a lot because I could ask my peers for help. We were a built in study group”.

• “It helped me to become closer to a small group of people who I worked on stuff with”.
Application of Knowledge

• “Helped me apply what I learned to actual life situations”.

“My TLC experience expanded my abilities to understand more... and be able to apply what I now understand to what I will learn”.

Study, Time, & Stress Management

• “Learned new study habits and time management”.

• “It helped me to study better and get my work done completely”.

• “It helped (me) understand how to handle the stress of college”.

• “Good foundation for learning, and study habits”.
Other Notable Areas

• Became More Comfortable & Confident
• Understanding Diversity, Society, & Global Issues
• Major Career Development (Connections)
• Same Students in Same Classes
“What specific suggestions do you have for improving the Themed Learning Communities? (n = 520)

Major Themes....
More Group Activities & Discussions *(Outside)*

- “Have more discussion on current events”.
- “More outside of class activities”.
- “Be more creative when thinking about new activities”.
- “Be more outgoing & get out of the classroom more & explore”.
- “More community involvement i.e.,: more trips, and definitely volunteer work”.

Improve Organization & Communication

• “Explain directly the expectations for the class”.

• “All teachers come together and view their lesson plans”.

• “Teachers need to get together and talk more”.

• “Organization: clearly lay out what the professor is expecting & enforcing due dates”.

• “Have the teachers involved, plan a staggered assignment schedule, and communicate with each other”.
Improve Course & Theme Connections

• “Incorporate the classes more”.
• “Make classes much more connected”.
• “Connect the topics from each class better”.
• “Make all 3 classes just a little more integrated”.
• “Clearly state when the theme is brought up across different areas”.

Other Notable Areas

• More Instructional Team Support & Communication
• General Positive Comment
• Improve (or Cancel) Specific Components
• Less Time Commitments & Restraints
Comparison Highlights

- **Developed Critical Thinking Skills:** #3 Most Common Reported TLC Learning Gain in 2012; #6 in 2011.

- **Newly Emerged Themes:** Application of Knowledge & Study, Time, & Stress Management Skills.

- "Outside of Classroom" aspect now being reported with frequency in students’ suggestions for improvement.

- “More Meaningful, Helpful, & Productive (Less Busy Work)” Did **Not** Emerge as Notable Theme in 2012.
Overall Research Implications

• Students seem to react positively to TLC interventions that facilitate positive connections, interactions, equip them with skills necessary to effectively adjust to college, and help them make connections between courses.

• Pedagogical strategies that facilitate Integrative Learning, Sense of Belonging/Community, and Peer Interactions may be most effective in enhancing students’ overall satisfaction with their learning experiences.

• TLC interventions that help students develop feelings of belonging and community positively affect persistence intentions.

• TLCs help promote high levels of engagement: Active and Collaborative Learning, Supportive Campus Environment, and Enriching Academic Experiences.
Conclusions

• TLC faculty have developed pedagogical strategies that foster engagement, integrative thinking, and positive learning experiences.

• The collective impact of TLC courses may be greater than any one course or intervention.

• The positive learning and collaborative environments created by the TLC instructional teams seem to have positive effects on the academic success outcomes for students with diverse backgrounds and with identified “risk factors.”

• TLC interventions can have positive impacts on academic success outcomes (academic performance and persistence).
Next Steps

• Continue to develop assessment techniques and methods to investigate impacts of TLC interventions.

• Comprehensive study of integrative learning.

• Focus groups or individual interviews with previous TLC students to enhance understanding of their experiences.

• Continue to develop pedagogical strategies that strengthen the positive effects TLCs.

• Use more methods to assess direct learning outcomes (e.g., examine and discuss student work and integrative assignments).

• Conduct a study to understand the notable variation in student success outcomes (GPAs and Retention rates) and students’ self-reported learning outcomes between sections.
Using Authentic Evidence to Deeply Understand Student Integrative Learning and Thinking

• Examining and analyzing actual student work is the best way to truly understand student learning as a result of TLC participation.

• Instructional team involvement is key!

• Formed committee to focus on this “TLC Interdisciplinary Curricular Connections Subcommittee”
Questions?

Reports available at
http://research.uc.iupui.edu/