Leadership for Transformative Change: Lessons from Technology-Based Reform in Broad-Access Colleges

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Overview
Motivation

• **Education equity:** Community colleges and broad-access colleges have promoted college access for traditionally underserved students, but completion rates remain troublingly low.

• **Higher education reform:** Most reforms to date have not made the kinds of deep, systemic changes believed necessary to improve completion.

• **Technology-based reform:** Even well-designed technologies do not necessarily change end-user practice, student behavior, or student outcomes.

The big question: How do you lead a technology-based reform effort for transformative change?
Defining Transformative Change

Process Change

Structural Change

Attitudinal Change

Transformative Change
Technology-Mediated Advising

Integrated Planning and Advising Services (IPAS)

- **Education planning**: comprehensive, interactive degree mapping.

- **Risk targeting and intervention**: tools for monitoring early indications of academic challenges and improving connections to support services.
Technology-Mediated Advising as Transformative Change

• **Structural Change**
  – Education plan required in student success course
  – Earlier, more frequent opportunities for assessment of course progress

• **Process Change**
  – Shift from course selection to long-term education and career planning.
  – Early alert systems enhance feedback loops and triage service delivery.

• **Attitudinal Change**
  – IPAS seen as advising reform rather than a technological efficiency.
Theoretical Framework
Leadership Typologies

• Two different approaches to change (Heifetz, 1994).
  – Technical: focusing on basic mechanics of IPAS technology.
  – Adaptive: leveraging IPAS to create transformative change.

• Two different levels of leadership in technology reform (Karp & Fletcher, 2014).
  – Institutional-level leaders: e.g. president, vice president, provost
  – Project-level leaders: e.g. directors, coordinators

Methods
Research Design

• **Case Study:** A qualitative research approach that involves in-depth exploration of individual cases (e.g., instances, systems, colleges, etc.) and identification of patterns across multiple cases.

• **Pre- & Post- Implementation Design:** Site visits occurred in fall 2013 and in early 2015 in order to assess changes over time. Mid-project phone interviews with a subsample of participants were conducted in spring 2014.

• **Early-Stage Change:** This paper presents findings on early-stage change from the first site visit and the mid-project phone interviews.
## Research Sites*

<table>
<thead>
<tr>
<th>Sector</th>
<th>Urbanicity</th>
<th>Project goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crescent Community College</td>
<td>Community college Suburban</td>
<td>Information provision</td>
</tr>
<tr>
<td>Lakeside Community College</td>
<td>Community college Suburban</td>
<td>Redesigned advising</td>
</tr>
<tr>
<td>Harbor University</td>
<td>Broad-access four-year (HBCU) Urban</td>
<td>Integrate technology and automate disconnected and paper/pencil processes</td>
</tr>
<tr>
<td>Forest Hill University</td>
<td>Broad-access four-year Mid-size city</td>
<td>Integrate multiple technology platforms</td>
</tr>
<tr>
<td>Treetop Community College</td>
<td>Community college Rural</td>
<td>Improved counseling efficiency and personalization</td>
</tr>
<tr>
<td>Bluffview Community College</td>
<td>Community college Small city</td>
<td>Integrated counseling and risk management</td>
</tr>
</tbody>
</table>

* All college names are pseudonyms.
## Data Sources

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Number of Participants</th>
<th>Interview Type</th>
<th>Interview Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2013</td>
<td>101</td>
<td>In-person</td>
<td>Knowledge of IPAS, vision for IPAS reform, approach to implementing IPAS, intentions to use IPAS</td>
</tr>
<tr>
<td>Spring 2014</td>
<td>12</td>
<td>Phone</td>
<td>Progress with on-going implementation and adoption of IPAS</td>
</tr>
</tbody>
</table>
Analysis

• Transcripts and interview notes were coded and analyzed using Atlas.ti.

• Inter-rater reliability:
  – Four rounds of test coding
  – Tested transcripts from a cross-section of sites and participant types
  – Coding “checks” conducted by lead researcher for every 5th transcript

• First full round of coding:
  – Who the institutional and project leaders were.
  – What their vision of benefits from IPAS was.

• Second full round of coding:
  – Categorized leaders as technical or adaptive based on vision of benefits.
Findings
**Four Leadership Types**

- **Visionary**: *Both* institutional leaders *and* project leaders were adaptive.

- **Presidential**: Institutional leaders were adaptive, *but* project-leaders were technically-focused.

- **Divided**: Institutional leaders were technically-focused, *but* project leaders were adaptive.

- **Technological**: *Both* institutional leaders *and* project leaders were technically-focused.

<table>
<thead>
<tr>
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<th>Presidential</th>
<th>Divided</th>
<th>Technological</th>
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</thead>
<tbody>
<tr>
<td><strong>Institutional</strong></td>
<td>Adaptive</td>
<td>Adaptive</td>
<td>Technical</td>
<td>Technical</td>
</tr>
<tr>
<td><strong>Project</strong></td>
<td>Adaptive</td>
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Prevalence of Leadership Types

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</tr>
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<tbody>
<tr>
<td>Fall 2013</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Spring 2014</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>2</td>
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# Leadership Types by College

## Consistent Typologies

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## Shift in Typologies

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<td>Technological</td>
</tr>
<tr>
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Correlation between Leadership Types and Early-Stage Transformative Change

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# 1. Need for Alignment: *Lakeside Community College*

**Institutional leaders** initially had an adaptive vision, but **project leaders** did not:

– **Institutional leaders**: “So we’re sitting with a redesigned model in student affairs and layering technology where it was missing, or where it was inadequate.”

– **Project leaders**: IPAS will allow advisors to manage their work “more effectively, more efficiently.”
# 2. Need for Adaptive Vision: Crescent Community College

Both institutional and project leaders had a technologically-focused vision, but an aligned vision isn’t helpful if it’s just focused on technology:

“We have to improve efficiency. Otherwise, we’ll never achieve the level of customer service that we hope to accomplish through this project…”
# 3. Implementation Can Be a Learning Process: *Harbor University*

**Project leaders** initially had an adaptive vision, but **institutional leaders** did not:

–**Institutional leaders**: “I saw a proposal… for you know a decent amount of money… I… I really honestly can’t say I had any great vision.”

–**Project leaders**: IPAS is “forcing the university’s hand to really kind of clean up its process, clean up its data, and really visit how we do advising now.”
Summary and Next Steps

• Key takeaways
  – Only colleges with visionary institutional and project leaders aligned around an adaptive vision demonstrated signs of transformative change.
  – It’s unrealistic to expect all colleges to start off with visionary leadership, but typologies aren’t fixed - implementation can be a learning experience.

• Next steps
  – Analyze 2015 site visit data.
  – Design an evaluation linking IPAS to student outcomes.
For more information

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