USING SEM TO DESCRIBE THE INFUSION OF CIVIC ENGAGEMENT INTO THE CAMPUS CULTURE

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Agenda

- Background/Introduction
- Theoretical Framework
- Participants & Instrument
- Methodology
  - Factor Analysis
  - Structural Equation Model
- Findings
- Limitations
- Conclusion & Future Research
- Questions
Institutional Background

- Research University – Very high activity
  - 4-year Liberal Arts & Engineering undergraduate schools
  - 5,224 undergraduates; 5,256 graduate/professional students; 10,480 total enrollment

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Institutional Background

Tisch College of Citizenship & Public Service

- Tisch College prepares young people to be lifelong active citizens and creates an enduring culture of active citizenship.
- Tisch offers courses, civic engagement programs, and supports faculty research.
- Active citizenship means building stronger, healthier, and safer communities. Active citizens come from all backgrounds and experiences, but share a commitment to actively engaging in their communities.
“...As an institution, we are committed to improving the human condition through education and discovery. Beyond this commitment, we will strive to be a model for society at large.

We want to foster an attitude of “giving-back” and understanding that active citizen participation is essential to freedom and democracy; and a desire to make the world a better place...”
Theoretical Framework

- Cultivate & sustain a supportive campus culture for civic engagement
  - “Civic engagement must be woven into the fabric of the institution if it is to be successful over time.” (Jacoby & Hollander, 2009)

- Suggestions:
  - Develop campus-wide infrastructure for civic engagement
  - Provide access and opportunity for all students
  - Demonstrate the long term effects of CE to the individual and society
Institutions that emphasize character development as a priority were more successful in developing the desired impact in their students (Kuh, 2000).

This finding conflicts with previous research that found where students go to college makes little or no difference in their development. **Student effort** (not the environment) was more important (Pascarella & Terenzini, 1991; Pace, 1990).
We use Kuh’s finding as the basis for our research study and hypothesize that the campus culture will affect civic engagement outcomes because Tufts has a supportive campus environment for civic engagement.
Objectives of Study

- Assess the effectiveness of institutional mission of active citizenship
- Provide empirical evidence that a supportive campus culture can affect civic engagement outcomes

Learn.  
Think.  
Do!
Research Questions

- How does the campus environment affect the civic attitudes and beliefs of students?

- How does the campus environment affect the civic engagement activities of students?

- Does the campus culture have a different impact on male and female students? or on students of color and white students?
Senior Survey

- Typically 95% of the graduating class completes the Senior Survey
- Encompasses a variety of topics:
  - Academic advising; Curriculum; Faculty; Post-baccalaureate plans; Campus services; Extra-curricular activities
- One section focuses on community service and civic engagement (See handout for specific questions).
Senior Survey Civic Engagement Questions

- Senior Survey - Civic engagement data collection began in 2003
- Items were a subset of the Civic and Political Activities and Attitudes Survey (CPAAS)
- Items measured include:
  - Satisfaction with service opportunities at Tufts
  - Attitudes regarding importance/value of service activities
  - Types of service/activities participated in
  - Reason(s) for involvement
  - Relationship of Tufts education to awareness of social problems and interest in effecting change
  - Plans for community and public service after graduation
Participants

- Four graduating classes of Tufts Seniors (Classes of 2005-2008), N = 4,118

Demographics

- 55.9% Female, 44.1% Male
- 66.0% White, 12.4% Asian, 6.9% Latino, 6.4% Black, 1.5% Multiracial, 5.6% International (Remaining 1.1% is missing or unknown)
- 85.9% Liberal Arts, 14.1% Engineering
- Mean GPA: 3.38
- 7% of the participants were transfer students
- 47.7% Studied Abroad

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Senior Survey Methodology

- **Factor Analysis**
  - Exploratory Factor Analysis (EFA)
    - \( N = 2043 \)
  - Confirmatory Factor Analysis (CFA)
    - \( N = 2075 \)

- **Structural Equation Model (SEM)**
  - Maximum Likelihood Estimation
  - AMOS 17.0
  - Goodness of fit: \( \text{RMSEA} \leq 0.05, \text{CFI} > 0.95, \text{and SRMR} < 0.10 \) is an excellent fit of the model to the data (Meyers et al., 2006; Kline, 2005)
## Final Factor Structure

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Factor</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values &amp; Beliefs</td>
<td>Self-Efficacy</td>
<td>5</td>
</tr>
<tr>
<td>Values &amp; Beliefs</td>
<td>Leadership Ability</td>
<td>3</td>
</tr>
<tr>
<td>Values &amp; Beliefs and Campus Environment</td>
<td>Community Connectedness</td>
<td>5</td>
</tr>
<tr>
<td>Campus Environment</td>
<td>Satisfaction with Tufts</td>
<td>4</td>
</tr>
<tr>
<td>Campus Environment</td>
<td>Support for Multicultural Competency</td>
<td>2</td>
</tr>
</tbody>
</table>
Values & Beliefs

- **Self-efficacy** (alpha = 0.89)
  - An undergraduate education should equip students with the skills and knowledge they need to make political and social change
  - Being involved in making change in my community is an important responsibility I have
  - Community service is an effective way to create change
  - Political service is an effective way to create change
  - Being engaged in politics is an important responsibility I have
Leadership ability (alpha = 0.82)

- How important to you personally is: Becoming a community leader?
- How important to you personally is: Participating in a community action program?
- How important to you personally is: Helping others who are in difficulty?
Community connectedness (alpha = 0.85)

- My Tufts education helped me to become more aware of my responsibility to serve my community
- My Tufts education increased my interest in making change in my community
- Service to others is valued at Tufts University
- During your time at Tufts, how would you rate your improvement in your understanding of: the problems facing your community?
- During your time at Tufts, how would you rate your improvement in your understanding of: social problems facing our nation?
Satisfaction with Tufts (alpha = 0.72)

- Overall, how satisfied have you been with your undergraduate education at Tufts?
- If you had the chance to relive your college experience, would you choose to attend Tufts again?
- To what extent have your expectations been met?¹
- How would you rate your academic experience at Tufts?

¹ Asked in response to, “When you first matriculated, you had certain expectations about your Tufts experience. Please briefly describe them.”
Support for multicultural competency (alpha = 0.57)

- My extracurricular activities at Tufts prepared me to function well in a multicultural society
- My Tufts curriculum prepared me to function well in a multicultural society.
Outcome Variable

- **Outcome variable: Civic Engagement**
  - Composites comprised of two sets of questions that were summed separately
  - **Current civic engagement (q 117)**
    - Do you: Volunteer, Work for a Political Campaign, Advocacy, Community Based Research, Etc
    - Mean: 0.90; Range: 0 – 6; Std Dev: 1.11
  - **Future civic engagement (q 124)**
    - Do you plan to: Volunteer, Work for Non-Profit, Make Donations, Attend Graduate School in a Related Field, Run for Office, Etc
    - Mean: 4.31, Range: 0 – 12; Std Dev: 2.72
Proposed conceptual model was tested

Not supported by the data as the path coefficient between campus environment and civic engagement was not statistically significant (p = 0.154)

Revised SEM had sufficient goodness-of-fit indices and significant path coefficients
Structural Equation Model

- Goodness-of-fit indices
  - $X^2(10) = 52.496$, $p < 0.001$
  - CFI (Comparative Fit Index) = 0.989
  - RMSEA (Root Mean Square Error of Approx.) = 0.045
  - SRMR (Standardized Root Mean Sq Residual) = 0.021

- All path coefficients statistically significant ($p<0.001$)

- Explains 10% of variance in students’ values and beliefs and 54% of the variance in civic engagement
Revised Structural Equation Model

Values & Beliefs
- self-efficacy
- leadership
- community connectedness

Civic Engagement
- current engagement
- future engagement

Campus Environment
- satisfaction
- multicultural competency
Tufts University

Structural Equation Model

Values & Beliefs

Civic Engagement

Campus Environment

0.73

0.32

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Campus Environment had a significant positive impact on students’ civic values & beliefs (0.32)

Campus Environment had a significant positive indirect effect on civic engagement activities of undergraduates (0.24)

Students’ civic values and beliefs had a significant direct effect on their level of civic engagement (0.73)
Findings

We tested whether model is invariant (equivalent) across race/ethnicity and sex.

No significant differences between students of color and white students or between male and females students for strength and direction of relationship among the 3 latent variables.

- Difference in explanatory power between male and females when path coefficients are constrained to be equal.
- Civic values and beliefs in male students explained 13% more variance in civic engagement activity compared to female students.
Limitations

- Relationships among three latent variables may not hold at institutions that do not have institutional support for civic engagement.

- Research design did not have covariates to control for pre-college attitudes and beliefs.

- Subsection of CPAAS instrument on Senior Survey may not fully capture the effect of the environment of civic engagement outcomes.
Conclusions & Implications for Future Research

- Interesting finding is how the relationship between the campus environment and civic engagement activities is mediated through students’ values and beliefs.
  - Self-efficacy could influence students’ motivation to participate in civic engagement.
  - Students may need to develop their leadership abilities in order to feel empowered to participate in civic activities.
- Students with strong belief systems that feel that they can make a difference will devote their time to civic-minded activities during college and beyond.
Future Research

- Is the model generalizable to other institutions?
- Does an institutional mission of civic engagement influence the institution’s staff and faculty?
- Do graduate and professional students at Tufts display the same relationships among the variables as the institution’s undergraduates?
Civic Engagement at Tufts

QUESTIONS???
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