Student Reported Individual and Team Effectiveness in a Service-Learning Capstone Course: Lessons from Five Cohorts

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The Learning Objective:

Recall and express strategies when employing spatial and non-spatial analyses to formulate and evaluate land use plans/designs at a variety of scales through individual and team efforts incorporating stakeholder participation.

The Studio Details:

5th Year Spring Semester
8 – 28 (14) students
1.25 faculty
6 Credits (12 Contact Hours / Week (MWF))
Professional office (Pseudo)
Grade and product completion on-time driven
The Background Work

Identifying Potential Counties

Phone Conversations and Project Examples

Presentation(s) of Previous Work

Agreement to Project in Concept

Project Components

Pursue Grants / Funding

Media Relations / Involvement

Preparing the Students

We’re Ready (Hopefully!)
Approaches to the Planning Process

“Decide, Announce, Defend” vs. “Public Owns Process”

- Walesh, 1999. POP is in, DAD is out. JAWRA 35:535-544.

Structured Public Involvement
- Stakeholder feedback critical
- Quantitative & Qualitative data utilized
- Keypads used to generate live ratings
- Flip Charts and comment sheets used
- Data gathered drives decisions

Quantitative Feedback

Qualitative Feedback – Public Interaction
Planning Process Diagram
Simpson County Goals

• Continuation of TVA Visioning Process – 2004 “Growth by Design”

  1 – Diverse growth respecting historic & small town feel.

  2 – Comprehensive recreation plan

  3 – Enhance and preserve the visual character of transportation corridors.
City, County, or Regional Study Projects


ALWAYS INVITED!!
The Physical Products
The Context

8th semester together

Final studio before graduation

I typically know all the students

Previous group (team?) work

No previous team building activity

Service-learning / community partner

Many have had internship(s)

Job searches / Some offers / Some jobs
The Problems / Research Question

- Individual work contributing to a team effort
- Educational system normally focused on the individual
- Persistent struggle for greater teamwork
- Professional work environment requires working together
- Some students finishing not satisfied by teamwork aspects

Original Research Question

By incorporating regular teambuilding experiences, can individual and team performance be increased as perceived by the students in the studio?

Revised Research Question

Can some experiences increase individual and team performance as perceived by the students?
The Literature Review


The Measures

**Individual Effectiveness Measure**
Personal and Group Effectiveness Scale (PGE – S) – Twenty Questions
(1=Ineffective – 5=Effective) (“Problem solving”)

**Group Effectiveness Measures**
Personal and Group Effectiveness Scale (PGE – T) – Twenty Questions
(1=Ineffective – 5=Effective) (“Conflict resolution”)

Group Environment Questionnaire – Group Integration-Task (GEQ – T) – Four Questions
(1=S. Disagree – 9=S. Agree) (“I am not going to miss this team when I graduate.”)

**Cohesion Measures**
Perceived Cohesion Scale (PCS) - Six Questions
(0=S. Disagree – 10=S. Agree) (“I see myself as part of the LA 975 community.”)

Group Environment Questionnaire – Individual Attraction (GEQ – S) – Five Questions
(1=S. Disagree – 9=S. Agree) (“Some of my best friends are in this class.”)

Instructions: Please consider your team’s effectiveness and your personal effectiveness on each of the items below. A score of 5 indicates high effectiveness (team/self is effective the majority of the time); 3 indicates moderate effectiveness (team/self is effective some of the time); 1 indicates ineffective (team/self is never effective). Please CIRCLE the appropriate response for each item.

<table>
<thead>
<tr>
<th>Effectiveness Level</th>
<th>Questions 1A-20A</th>
<th>(B) PGE-S</th>
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</thead>
<tbody>
<tr>
<td>1. Giving positive feedback</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>2. Receiving positive feedback</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>3. Problem solving</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<td>4. Decision-making</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<td>5. Conflict resolution</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>6. Tolerance of individual differences</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>7. Cooperation on tasks</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>8. Development of support networks</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>9. Ability to overcomes stress &amp; frustration</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>10. Respect for others</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>11. Clear goals &amp;objectives</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>12. Willingness to take risks</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<td>13. Sense of purpose</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>14. Sense of direction/focus</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<td>15. Take advantage of opportunities</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>16. Commitment/dedication</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>17. Confidence</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>18. Energy/enthusiasm</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
In the next section all items are based on a 9 point scale, (1=strongly disagree and 9=strongly agree). Please CIRCLE the appropriate response for each item.

**Questions 21–24 = GEQ-T**

21. I do not enjoy the social interaction occurring on this team.
   1 2 3 4 5 6 7 8 9

22. I am not happy with the amount of learning I get from my teammates.
   1 2 3 4 5 6 7 8 9

23. I am not going to miss the members of this team when I graduate.
   1 2 3 4 5 6 7 8 9

24. I am unhappy with my teammates' level of commitment to learning.
   1 2 3 4 5 6 7 8 9

**Questions 25–29 = GEQ-S**

25. Some of my best friends are on this team.
   1 2 3 4 5 6 7 8 9

26. The members of this team do not give enough opportunities to improve learning.
   1 2 3 4 5 6 7 8 9

27. I enjoy other social events more than social activities associated with this team.
   1 2 3 4 5 6 7 8 9

28. I do not like the approach to learning on this team.
   1 2 3 4 5 6 7 8 9

29. For me, this team is one of the most important social groups to which I belong.
   1 2 3 4 5 6 7 8 9
In the last section all items are based on an 11 point scale, (0=strongly disagree, to 5=neutral, and 10=strongly agree). Please CIRCLE the appropriate response for each item.

Questions 30-35 = PCS

30. I feel a sense of belonging to LA 975.
   0  1  2  3  4  5  6  7  8  9  10

31. I am enthusiastic about LA 975.
   0  1  2  3  4  5  6  7  8  9  10

32. I feel that I am a member of the LA 975 community.
   0  1  2  3  4  5  6  7  8  9  10

33. I am happy to be in LA 975.
   0  1  2  3  4  5  6  7  8  9  10

34. I see myself as part of the LA 975 community.
   0  1  2  3  4  5  6  7  8  9  10

35. LA 975 is one of the best classes at the University of Kentucky.
   0  1  2  3  4  5  6  7  8  9  10

[Thank You]
The Study Design / Analysis

Voluntary and anonymous but self Alpha/Numerical Coded

Paper and pencil instrument
Repeated (periodically)
First and last day of class

Nonparametric and small population

SPSS v.18 for analysis
Cronbach’s Alpha
Wilcoxon signed-rank test
  2 Related Samples
Final Analyses $n=8-19$ (~75 Total)
The Results - Reliability

**Individual Effectiveness Measure**
Personal and Group Effectiveness Scale (PGE – S)
Cronbach’s Alphas = .79 – .98 (Survey 1 = .88  Survey 9 = .95)

**Group Effectiveness Measures**
Personal and Group Effectiveness Scale (PGE – T)
Cronbach’s Alphas = .23 – .97 (Survey 1 = .94  Survey 9 = .94)

Group Environment Questionnaire – Group Integration-Task (GEQ – T)
Cronbach’s Alphas = .39 – .95 (Survey 1 = .83  Survey 9 = .79)

**Cohesion Measures**
Perceived Cohesion Scale (PCS)
Cronbach’s Alphas = .82 – .98 (Survey 1 = .88  Survey 9 = .91)

Group Environment Questionnaire – Individual Attraction (GEQ – S)
Cronbach’s Alphas = .2 – .62  No Further Analysis – Dropping in the Future
The Results – Personal and Group Effectiveness-Self

“Problem solving, Competence, Feeling of Significance, Respect for Others, etc.”

Wilcoxon Results
Survey 1 and Survey 9
\[ p = .442 \text{ (2-tailed)} \quad n = 14 \]
The Results – Personal and Group Effectiveness - Team

“Decision-making, Task Cooperation, Overcoming Stress & Frustration, etc.”

Wilcoxon Results
Survey 1 and Survey 9
p = .504 (2-tailed) n = 12
The Results – Personal and Group Effectiveness - Self

Survey Administration

- Team

Effective

Ineffective

“The Thread”

“Wilderness Survival”

First Presentation

Last Presentation

Survey Administration
The Results – Group Environment Questionnaire - Team

“I am not going to miss this team when I graduate.”

Wilcoxon Results
Survey 1 and Survey 9
p = .327 (2-tailed)  n = 12
The Results – Perceived Cohesion Scale

“I see myself as part of the LA 975 community.”

Wilcoxon Results
Survey 1 and Survey 9
p = .013 (2-tailed)  n = 14
Survey 1 and Survey 8
p = .017 (2-tailed)  n = 9
The Take Home Messages

5 cohorts (~75 students) – Not perfect experimental design
In & out of studio team building interventions
Most measures reliable – Most of the time

10 or more semesters in college
8 semesters together
Old dog - New tricks?

At the end – No significant differences
Students say they like team building experiences
Team activities earlier in curriculum and track perceptions
Every team is new and interact differently at different points
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