Examining the Research Evidence for the Academic Value of Service-Learning

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Where’s the Evidence?

Approximately how many English-language studies of service-learning have been published?

A. 78
B. 104
C. 198
D. Between 200 and 300
E. More than 500
Published Studies

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A. 78
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Impact of Service-Learning and Social Justice Education on College Students’ Cognitive Development

Yan Wang
Robert Rodgers

This study uses a multi-method approach to explore the impact of a Social Justice Education curriculum on college students’ cognitive development.

Integrating Project-Based Service-Learning into an Advanced Environmental Chemistry Course

Amy S. Stenger
San Jose State University

The implementation of a project-based service-learning course in an advanced environmental chemistry class is described, along with its effects on student engagement and learning outcomes.

Service-Learning in Dental Education: Meeting Needs and Challenges

T. Grace Burdick
John H. Conrad

The benefits and challenges of integrating service-learning into dental education programs are discussed, with a focus on meeting community needs.

The Impact of Service Learning on Democratic and Civic Values

Steven Homer
West Virginia University

The impact of service learning on students’ democratic and civic values is examined, with a focus on promoting responsible citizenship.

Concepts from environmental education have been applied in an environmental science course at Appalachian State University, resulting in enhanced student engagement and a deeper understanding of environmental issues.
Impact Research

- **Students** (most of research): 6 outcome domains
  - academic, civic, personal, social, ethical, career
- **Faculty** (growing)
  - faculty motivation, changing attitudes toward teaching; efficacy with SL
- **Institutions** (growing)
  - institutional climate, community perceptions, student retention rates
- **Community** (minimal)
State of Service-Learning Research

- IMPLEMENTATION RESEARCH
- INSTITUTIONALIZATION RESEARCH
- INTERNATIONAL RESEARCH
Student Impacts

On which domain do we see the greatest impact on students who participate in service-learning?

A. Academic and cognitive development
B. Civic and ethical development
C. Personal and social development
D. Career and vocational Development
Student Impacts

On which domain do we see the greatest impact on students who participate in service-learning?

Stay tuned.....
Impact on Students: Academic

CONTENT KNOWLEDGE & SKILLS

HIGHER ORDER THINKING SKILLS

Academic Outcome Areas

RE-ENROLLMENT & PERSISTENCE

OTHER (grade point averages, attendance, etc.)
Academic Outcomes

- **Increased content knowledge and skills**

  - College students enrolled in service-learning developed a more profound understanding of political science than control group. *(Markus, Howard, & King, 1993)*

  - Freshman composition students participating in service-learning showed higher gains than comparison group in writing abilities, based on Biber’s computer-mediated writing assessment. *(Wurr, 2002)*

  - Students (n=65) enrolled in the section of a medical aspects of disabilities services course containing service-learning components scored statistically significantly higher on course examinations than students (n=65) enrolled in the section of the same course that did not contain a service-learning component. *(Mpofu, 2007)*

  - Community college students participating in service-learning (n=1,687) reported statistically higher outcomes in understanding and skill in applying coursework to everyday life than comparable students not engaged in service-learning (n=630). *(Prentice & Robinson, 2010)*
Academic Outcomes

• **Improved higher order thinking skills:**

  • Students engaged in service-learning tied to the curriculum demonstrated greater *complexities of understanding* than comparison group *(Feldman et al., 2006; Eyler & Giles, 1999)*

  • Students engaged in service-learning experiences with reflection showed statistically significant increases in ability to *analyze increasingly complex problems* *(Eyler & Giles, 1999, Batchelder & Root, 1994)*

  • Engagement in course-based, service-learning revealed significant increases in students’ *critical thinking abilities* *(Prentice & Robinson, 2010; Bringle, 2006; Eyler & Giles, 1999; Osborne et al., 1998)*
Increased Persistence (Re-enrollment):

• First-year students engaged civically through service-learning were more likely than non-service-learning peers to indicate they planned to re-enroll and eventually graduate from their current institution (Muthiah, Bringle, and Hatcher, 2002);

• Participation in service-learning experiences during college enhances mediating variables for student retention, including students’ interpersonal, community, and academic engagement and peer and faculty relationships (Gallini & Moely, 2003; Bringle, Hatcher, & Muthiah, 2010)
Civic Outcomes

▶ Civic Responsibility

A variety of well-organized service-learning experiences have a positive effect on students’ sense of social responsibility and citizenship skills.

(Levine, 2010; Kahne, 2008; Kahne and Westheimer, 2003; Moely, 2002; Astin & Sax, 1998; Eyler and Giles, 1999; Gray et. al, 1998)

▶ Commitment to Service

Substantial, meaningful engagement in the community through service-learning enhances students’ commitment to community service.

(Vogelgesang, 2005; Fenzel & Peyrot, 2005; Vogelgesang & Astin, 2000; Astin, Sax, & Avalos, 1999; Eyler & Giles, 1999; Marcus, Howard, & King, 1993)
Career Outcomes

▶ Career Awareness

*Engagement in service-learning and community-based research experiences enhances students’ *sense of career options* and expands career possibilities.* (Lee, 2006; Minkler and Wallerstein, 2003; Howe, 2001; Eyler and Giles, 1999; Gray et. al, 1998; Fenzel & Leary, 1997; Tartter, 1996)

▶ Career Skills

*Service-learning activities enhance students’ *sense of technical competence* in a variety of fields* (Prentice & Robinson, 2010; Langley, 2006; Vogelgesang, 2003; Vogelgesang & Astin, 2000; Astin, Sax, & Avalos, 1999; Sledge et al., 1993)*
Personal and Social Outcomes

► Self-esteem

*Participation in service-learning increases students’ self-esteem*

(Shaffer, 1993; Switzer et al. 1995; McMahon, 1998; Furco, 2003; Ehrlich, 2003; Simons, 2006; Miller, 2009)

► Empowerment and self-efficacy

*Participation in service-learning enhances students’ sense of self-efficacy and empowerment*

(Shaffer, 1993; McMahon, 1998; Morgan and Streb, 1999; Furco 2003; Tapia, 2005; Sherraden, 2007)

► Prosocial behaviors

*Students’ participation in course-based service-learning experiences increases their likelihood to engage in prosocial behaviors and decreases students’ likelihood to engage in at-risk behaviors*

(Batchelder & Root, 1994; Stephens, 1995; Yates and Youniss, 1996; Berkas, 1997; Astin & Sax, 1998; Eyler & Giles, 1999; O’Donnell et al., 1999; Eccles and Gootman, 2002; Boyle-Baise, 2004; Simons, 2006)
Personal and Social Outcomes

▶ Motivation

Course-based service-learning experiences have positive effects on students’ motivation for learning. (Loesch-Griffin, Petrides, and Pratt 1995; Stephens, 1995; Furco, 2003; Covitt, 2003)

▶ Engagement

Service-learning experiences increase students’ engagement and investment in activities (3 areas):
Personal and Social Outcomes

**Civic Engagement:** Serviced-learning experiences enhance students’ engagement in civic-related activities. (Yates and Youniss, 1996; Youniss, McLellan, & Yates, 1997; Astin & Sax, 1998; Keen & Keen, 1998; Eyler & Giles, 1999; Vogelgesang & Astin, 2000, 2004; Kahne, 2008)

**Social Engagement:** Service-learning experiences enhance students’ connections and interactions with faculty, peers and community members (Conrad and Hedin, 1989; Rutter and Newmann, 1989; Loesch-Griffin, Petrides, and Pratt 1995; Eyler, & Giles, 1999; Morgan and Streb, 1999; Gallini and Moely, 2002; Furco 2003)

**Academic Engagement:** Service-learning experiences enhance students’ engagement in school and in learning (Silcox, 1993; Bringle, 1998; Eyler and Giles, 1999; Wurr, 2002; Gallini and Moely, 2002; Tapia, 2005; Feldman et al., 2006; Mpofu, 2007)
Influences on Outcomes

- Reflection (*nature, type, frequency*)
- Clarity of objectives and purpose
- Dosage
- Level of integration
- Authenticity
- Meaningfulness
Service-Learning & Academic Achievement

Mediating Factors

Self-esteem
Empowerment
Prosocial behaviors
Motivation
Engagement
Relationships
Sense of Belonging

Academic Achievement

Clearly defined programmatic features
## Preferences

<table>
<thead>
<tr>
<th>TYPE</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charity</td>
<td>Serve food to the homeless on Saturdays</td>
</tr>
<tr>
<td>Empowerment Service</td>
<td>Educate the homeless about social services available to them</td>
</tr>
<tr>
<td>Public Work</td>
<td>Facilitate the opening of a homeless shelter</td>
</tr>
<tr>
<td>Participatory Democracy</td>
<td>Work to secure legislation and citizen support that will secure rights for persons.</td>
</tr>
<tr>
<td>Social Action</td>
<td>Students organize a camp out on campus to raise awareness about homeless</td>
</tr>
<tr>
<td>Social Change</td>
<td>Work to reduce the number of homeless persons; train homeless persons for jobs</td>
</tr>
<tr>
<td>Social Justice</td>
<td>Secure legal assistance for a homeless person who was denied health services</td>
</tr>
</tbody>
</table>

Looking to the Future

- Conduct studies that account for students’ cumulative community engagement experiences
- Conduct longitudinal studies
- Employ more rigorous research designs and more reliable instruments
- Pay closer attention program features, structure, and intentionality
- New studies need to build on previous studies
- Replicate high quality studies
- Focus more studies on assessing community impact.
~ Thank you! ~
Service-Learning & Educational Success

Mediating Factors

- Communication
- Problem Solving
- Critical Thinking
- Knowledge Application
- Teamwork
- Diverse Perspectives
- Take Initiative

Service-Learning

Clearly defined programmatic features

Educational Success
Research Questions

1) How can we characterize students in terms of their preferences for different kinds of service in the community?

2) What is the importance of these preferences? In particular, how does a match or mismatch between preferences and service opportunities affect students’ gains from service-learning?
“Paradigms” of Community Service

Charity Approach
Emphasis on direct service to the individual, for a limited period of time. The “helper” plans activities and makes decisions about service activities.

Social Change Approach
Emphasis on producing societal change that will last. Aim is to empower those served so that they can accomplish self-determined goals.
Pre-post Questionnaires

Battery of questionnaires:

**HES-LS** *(Furco, 2000):* Civic Responsibility; Academic Attitude
Career Development; Empowerment *(pre-post)*

**CASQ** *(Moely et al., 2002):* Civic Action, Social Justice, Appreciation of Diversity *(pre-post)*

**SERVICE PREFERENCE SCALE** *(Moely and Miron, 2005):* Civic Action, Social Justice, Appreciation of Diversity *(pre)*

**SERVICE ACTIVITIES SCALE** *(Moely and Miron, 2005):* Civic Action, Social Justice, Appreciation of Diversity *(post)*

**ASSESSMENT OF STUDENT OUTCOMES FROM S-L** *(Moely 2005):* Learning about Community, Satisfaction with College, Interpersonal Effectiveness *(post)*
Measuring Service Preferences

“The following statements describe different kinds of service-learning activities. Please rate each statement as to how much you would like to engage in this kind of service.”

Charity Items

A service placement where you can really become involved in helping individuals.

Helping those in need.
Internal Consistency: alpha (4 items, $N = 2,016$) = .83

Social Change Items

Changing public policy for the benefit of people.

Working to address a major social ill confronting our society.
Internal Consistency: alpha (4 items, $N = 2,017$) = .85

Scale: 1=Not at all  2=Minimal Extent  3=Moderate Extent  4=Large Extent  5=Great Extent
Characterizing Service Sites

“Using the scale below, indicate the extent to which your service-learning activity involved each of the following:”

**Charity Items**

A service placement where you can really become involved in helping individuals.

Helping those in need.

Internal Consistency: alpha (4 items, \(N = 1,650\)) = .85

**Social Change Items**

Changing public policy for the benefit of people.

Working to address a major social ill confronting our society.

Internal Consistency: alpha (4 items, \(N = 1,646\)) = .84

---

**Scale:**

1 = Not at all  
2 = Minimal Extent  
3 = Moderate Extent  
4 = Large Extent  
5 = Great Extent
Assessment of Student Outcomes from Service-Learning

Post-Survey Outcome Areas:

♦ Increased *Learning about the Community*  
  (10 items, $\alpha = .92$, $N = 1,626$)

♦ Increased *Satisfaction with College*  
  (10 items, $\alpha = .91$, $N = 1,622$)

♦ Increased *Interpersonal Effectiveness*  
  (7 items, $\alpha = .89$, $N = 1,630$)
## Identifying “Match” and “Mismatch” Groups

<table>
<thead>
<tr>
<th>Student Preferences: Service Site:</th>
<th>Charity</th>
<th>Social Change</th>
<th>High Value Undiff.</th>
<th>Low Value Undiff.</th>
<th>Totals: Match/ Mismatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Charity</td>
<td>69</td>
<td>46</td>
<td>75</td>
<td>107</td>
<td>144/153</td>
</tr>
<tr>
<td>Low SocCh.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Charity</td>
<td>26</td>
<td>66</td>
<td>62</td>
<td>74</td>
<td>128/100</td>
</tr>
<tr>
<td>High SocCh.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Charity</td>
<td>83</td>
<td>105</td>
<td>195</td>
<td>131</td>
<td>195/131</td>
</tr>
<tr>
<td>High SocCh.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Charity</td>
<td>62</td>
<td>88</td>
<td>76</td>
<td>170</td>
<td>170/226</td>
</tr>
<tr>
<td>Low SocCh.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>240</td>
<td>305</td>
<td>408</td>
<td>482</td>
<td>637/610</td>
</tr>
</tbody>
</table>
## Effects on Students’ Reports of Learning about the Community

<table>
<thead>
<tr>
<th>SERVICE PREFERENCE</th>
<th>GROUPS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Match</td>
<td>NO Match</td>
<td></td>
</tr>
<tr>
<td>Charity</td>
<td>3.80</td>
<td>3.39</td>
<td></td>
</tr>
<tr>
<td>SD = .69, N = 138</td>
<td>SD = .79, N = 150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Change</td>
<td>3.81</td>
<td>3.20</td>
<td></td>
</tr>
<tr>
<td>SD = .55, N = 126</td>
<td>SD = .93, N = 97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Value Undifferent.</td>
<td>4.17</td>
<td>3.37</td>
<td></td>
</tr>
<tr>
<td>SD = .53, N = 190</td>
<td>SD = .78, N = 124</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Value Undifferent.</td>
<td>2.96</td>
<td>3.44</td>
<td></td>
</tr>
<tr>
<td>SD = .80, N = 164</td>
<td>SD = .68, N = 218</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANOVA: Ind. Variables: Preference Group, Match; Covariates: Gender, Social Desirability
# Effects on Students’ Reports of Satisfaction with College

<table>
<thead>
<tr>
<th>SERVICE PREFERENCE</th>
<th>GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Match</td>
</tr>
<tr>
<td>Charity</td>
<td>3.07</td>
</tr>
<tr>
<td></td>
<td>SD = .82, N = 137</td>
</tr>
<tr>
<td>Social Change</td>
<td>3.35</td>
</tr>
<tr>
<td></td>
<td>SD = .69, N = 123</td>
</tr>
<tr>
<td>High Value Undifferent.</td>
<td>3.58</td>
</tr>
<tr>
<td></td>
<td>SD = .68, N = 191</td>
</tr>
<tr>
<td>Low Value Undifferent.</td>
<td>2.58</td>
</tr>
<tr>
<td></td>
<td>SD = .79, N = 164</td>
</tr>
</tbody>
</table>

ANOVA: *Ind. Variables:* Preference Group, Match; *Covariates:* Gender, Social Desirability
**Effects on Students’ Reports of Interpersonal Effectiveness**

<table>
<thead>
<tr>
<th>SERVICE PREFERENCE</th>
<th>GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Match</td>
</tr>
<tr>
<td>Charity</td>
<td>3.98</td>
</tr>
<tr>
<td></td>
<td>$SD = .80, N = 138$</td>
</tr>
<tr>
<td>Social Change</td>
<td>3.93</td>
</tr>
<tr>
<td></td>
<td>$SD = .54, N = 124$</td>
</tr>
<tr>
<td>High Value Undifferent.</td>
<td>4.12</td>
</tr>
<tr>
<td></td>
<td>$SD = .68, N = 191$</td>
</tr>
<tr>
<td>Low Value Undifferent.</td>
<td>3.20</td>
</tr>
<tr>
<td></td>
<td>$SD = .91, N = 163$</td>
</tr>
</tbody>
</table>

ANOVA: *Ind. Variables:* Preference Group, Match; *Covariates:* Gender, Social Desirability
Major Findings

Research Question #1

- Students, especially women, prefer Charity (helping) activities.
- 1/3 prefer Charity or Social Change service paradigms.
- Others do not differentiate preferences, indicating enjoyment of both (30%) or neither (35%) Charity and Social Change activities.
Major Findings

Research Question #2

- For three groups, a match predicts positive outcomes for Learning about the Community, Satisfaction with College, and Interpersonal Effectiveness.

- The Low Value Undifferentiated group profits by service experiences that offer opportunities for both Charity and Social Change activities.
Issues to Consider in Service-Learning Research

- lack of common definition
- variation in programmatic practices
- broad range of methodologies utilized
- variety of designs (experimental, non-experimental, case studies)
- limited number of longitudinal studies
- small sample sizes
- many studies based on self-reports
Issues to Consider in Service-Learning Research

Implications

- limited generalizability of studies
- small effect sizes
- limited predictor value
- results subject to alternate explanations
- weak causal connections