

Institutional Satisfaction and the Development of Transferable Skills

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Abstract

Transferable skills, such as problem solving and analytical writing, play an important role in students' appeal to prospective employers. This study explores whether senior students' development of these transferable skills were related to their perceptions of satisfaction with their higher education institutions. Using data from the NSSE 2012 administration, regression analyses suggest that problem solving skills were a significant positive predictor of institutional satisfaction, even when controlling for other demographic and institutional characteristics. Analytical writing skills were also a significant positive predictor of institutional satisfaction.

Background and Purpose

A major function of higher education is to help students develop skills that will lead them to success in the workplace (Evers, Rush, Berdrow, 1998; Stasz, 2001).

- Some acquired skills are considered discipline-specific
- Many "transferable skills," such as problem solving and effective communication, are applicable to a broad range of fields (Bradshaw, 1985; Stasz, 1997)

There is a need for generic skills across multiple types of jobs, and students possessing them appear more marketable to potential employers. The American Association of Colleges and Universities has recently addressed many of these skills as essential learning outcomes, including:

- critical and creative thinking
- inquiry and analysis
- written and oral communication

In the current uncertain economy, students are aware that their employment prospects may be constrained, and they are concerned with getting the best return on their academic investment, in the form of employability. This study addresses whether student development of these transferable skills relates to their perceptions of satisfaction with their higher education institutions.

Methodology

National Survey of Student Engagement (NSSE) 2012 data was used, with a set of "transferable skills" items appended to the main NSSE instrument for 41 participating institutions:

Participants

- Data for 11,815 seniors was available for analysis
- Institutions represented a variety of geographic regions, Carnegie Classifications, control type, and enrollment sizes

Analysis

- Exploratory and confirmatory factor analysis revealed two constructs:
 - o Analytic writing skills (AWS)
 - o Problem solving skills (PSS)
 - o see Table 1 for list of items
- OLS regression to investigate relationship between AWS/PSS and seniors' satisfaction with college experiences, controlling for student and institutional characteristics (see Table 2 for complete list)
 - o Also examined if the relationship between transferable skills and satisfaction varied by students' characteristics

Table 1:
Items in Transferable Skills Constructs

Analytic Writing Skills (AWS)

At your institution during the current school year, about how often have you done each of the following either in or out of the classroom:

- Written a paper or report using information from a variety of sources (books, journals, internet, databases, etc.)
- Written a paper or report that assessed the conclusions of a published work
- Written a paper or report that included ideas from more than one academic discipline
- Written a paper or report that presented multiple viewpoints or perspectives

Problem Solving Skills (PSS)

At your institution during the current school year, about how often have you done each of the following either in or out of the classroom:

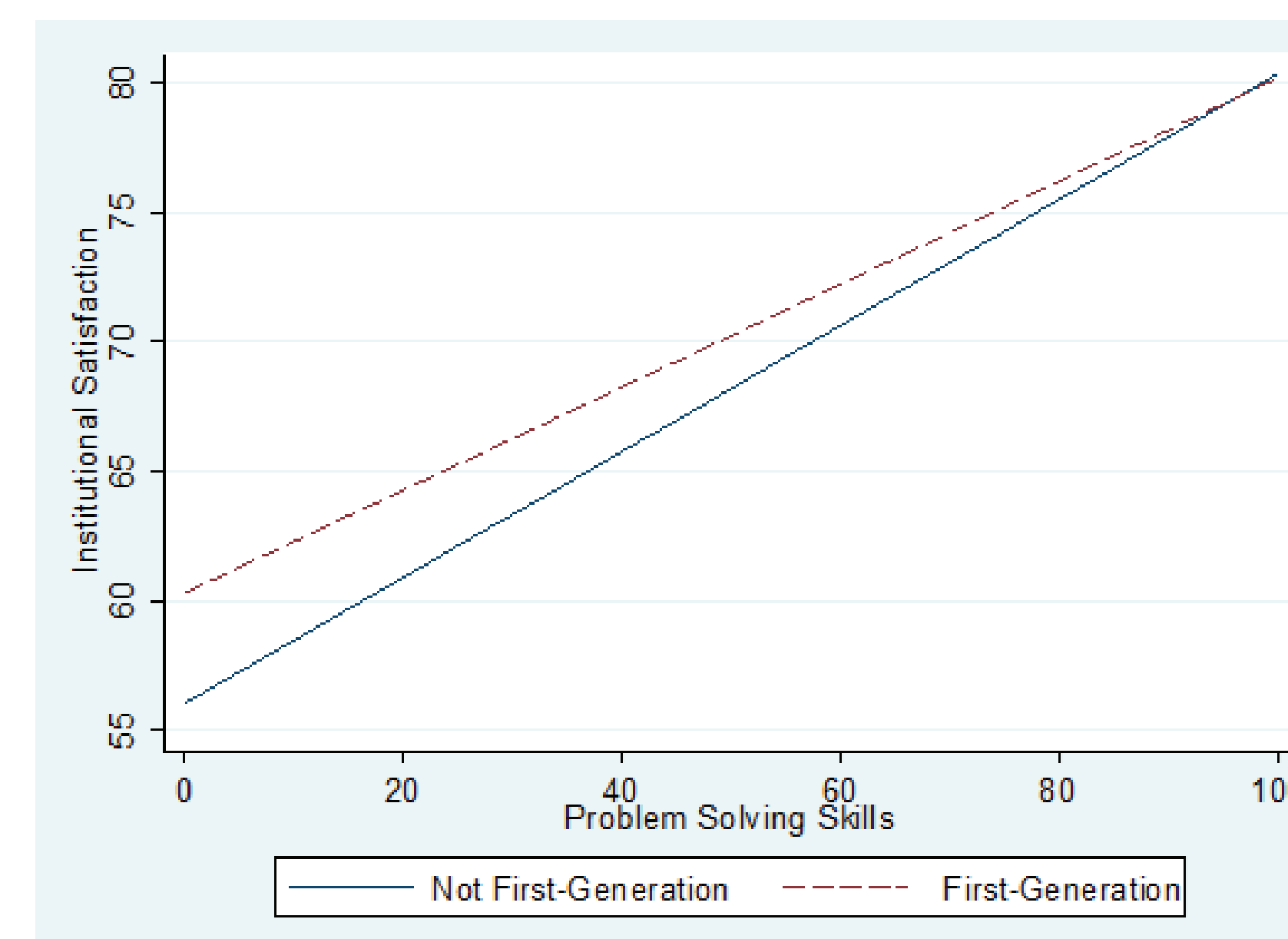
- Discussed the ethical consequences of a course of action
- Creatively thought about new ideas or ways to improve things
- Critically evaluated multiple solutions to a problem
- Discussed complex problems with others to develop a better solution

Results

The results shown in Table 2 indicate that both AWS and PSS were positively and significantly correlated with senior's institutional satisfaction holding constant other factors.

- Seniors who more frequently engaged in these transferable skills were more likely to be satisfied with their educational experiences
 - o The relationship is considerably stronger for PSS than AWS
- Also found that the relationship between PSS and satisfaction varied by parental education:
 - o Correlation between these variables was weaker for first-generation students than for students with a parent who held a college degree (Figure 1)

Figure 1:
Predicted Institutional Satisfaction by First-Generation Status and Problem Solving Skills



Discussion

This suggests that students with higher parental education levels became more satisfied with their college experiences when they were engaged to think about solutions to complex problems.

Given the importance of these skills for success in the workplace, it is encouraging to see that students themselves also place value in the development of these skills and are satisfied with their institutions' contributions.

Future research is needed to explore more specific characteristics of students who seem to benefit the most from these types of skills. Institutions should look for ways to incorporate these transferable skills into both core and major-specific curricula, as this can:

- Make students more marketable to a wide range of employers
- Increase student satisfaction with their overall institutional experience

Table 2:
Predictors of Senior's Institutional Satisfaction

Variable	Model 1		Model 2	
	Coef.	Sig.	Coef.	Sig.
Analytic Writing Skills	0.06 ***		0.06 ***	
Problem Solving Skills	0.22 ***		0.24 ***	
Distance Learner	4.73 ***		4.74 ***	
Female	1.01		1.00	
First Generation	1.47 **		4.26 **	
Full-time	-1.29		-1.27	
Grades:				
C	-6.99		-6.88	
C+	-1.22		-1.06	
B-	0.49		0.66	
B	3.20		3.38	
B+	6.22		6.43	
A-	6.37		6.55	
A	9.04 *		9.23 *	
Greek member	2.30 *		2.27 *	
International	0.96		0.93	
Major:				
Biological Sciences	1.25		1.30	
Business	-0.27		-0.26	
Education	1.43		1.42	
Engineering	1.32		1.32	
Physical Sciences	0.23		0.27	
Professional (other)	-1.26		-1.24	
Social Sciences	-0.56		-0.55	
Other	2.56 *		2.53 *	
Undecided	8.63		8.72	
Race/ethnicity:				
Asian	-5.78		-5.69	
Black	-2.99		-2.88	
White	-2.88		-2.79	
Mexican	0.44		0.46	
Puerto Rican	-3.92		-3.80	
Other Hispanic/Latino	-2.15		-2.08	
Multiracial	-6.73 *		-6.53 *	
Other	-4.87		-4.78	
Prefer not to respond	-13.49 ***		-13.41 ***	
Transfer student	-2.25 ***		-2.24 ***	
Private institution	-3.20 ***		-3.15 ***	
Barron's Selectivity	3.32 ***		3.30 ***	
Carnegie Classification (aggregated):				
Master's	6.41 ***		6.40 ***	
Baccalaureate	2.26 **		2.25 **	
First Gen*PSS			-0.04 *	
Constant	41.72 ***		39.97 ***	
Observations	8,088		8,088	
R-squared	0.13		0.13	

References

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