

Evaluation of the Impact of Proactive Schools Curriculum  
National Center for School Counseling Outcome Research

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Proactive Schools: Year Two Evaluation of the Impact of the  
Bridges Curriculum on Middle and High School Students

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This report summarizes the second-year evaluation of the Bridges curriculum. The Bridges curriculum is an intensive, school-wide intervention targeted at improving students' self-efficacy, agency, motivation, and sense of direction. Pre- and post-test data was collected from four urban, suburban, and rural areas in the United States and Canada. These districts included one in British Columbia, Canada, and one each in New York, Indiana, Colorado.

## Method

### *Participants*

Fifteen schools participated in the evaluation of the Bridges curriculum; 13 of the schools are located in the U.S. and two in Canada (Colorado n = 3, Indiana n = 6, New York n = 4, Canada n=2). The total number of pre-test surveys completed was 2057, and the total number of post-test surveys completed was 1312. Pre- and post-test surveys were taken by the same groups of students who ranged from 12 to 18-years-of-age and were enrolled in the 7<sup>th</sup> through the 12<sup>th</sup> grades. The gender of the sample consisted of the following: 24% male, 34% female, and 41.8% gender unknown. The ethnicity of the sample was: .1% Native American, 6.6% African American, 35% Asian, 3.7% Hispanic, 57% White, 1.2 % multiethnic/other, and 29.8% unknown (see Table 1).

Table 1.

*Demographic data (from pre-test) for gender, ethnicity, and free/reduced lunch, provided by a limited number of sites.*

Category	N	%
Gender (based on NY, CO and IN data)		
Female	977	38.1
Male	783	47.5
Missing Data	297	14.4
Ethnicity (based on NY and IN data)		
Native American	2	.1
Black	135	6.6
Asian	35	1.7
White	76	3.7
Hispanic	1172	57
Other	25	1.2
Missing Data	612	29.8
Grade (based on NY, CO and IN Data)		
7	703	34.1
9	927	45.1
10	58	2.8
11	36	1.8
12	36	1.8
Missing Data	297	14.4
Free and Reduced Lunch (based on NY and IN data)		
Free	131	6.4
Reduced	497	24.2
Not Free/Reduced	1244	60.4
Missing Data		

\*Note: due to missing data, this table is not representative of the entire sample.

Students at all participating sites were given the *Career-Self Efficacy* (CSE) survey before and after receiving the Bridges curriculum. A total of 3369 surveys were completed during the pre- and post-test administrations. In addition to this survey data, institutional data on gender, ethnicity, attendance, grade point average, and achievement test scores was collected from each site. Further information, such as whether or not each student was an English language learner, and whether or not the student received free/reduced lunch, was also requested from each site. This data proved difficult to obtain from each of the sites for both the year one and year two evaluations and is currently incomplete. Each site was given the option to take the CSE survey on-line, but only two sites, Colorado and New York, chose to complete both the pre- and post-tests in this format. Indiana completed some of their surveys on-line and some by paper/pencil, and the British Columbia site used only paper/pencil versions to complete their surveys. Because information about gender, age, and grade was not included on the paper/pencil surveys, and the sites using this format have still not supplied CSCOR with their institutional data, we have been unable to fully disaggregate this portion of the data.

Participants were chosen on the basis of their grade level and their enrollment in a course in which they were exposed to the Bridges curriculum. The sites reported that students were taught the curriculum in various career exploration-related classes which demanded that students engage with the curriculum. Classroom teachers were trained in the Bridges curriculum; data collection was managed by each district's career coordinator.

### *Instrumentation*

The Career Self-Efficacy scale (CSE) used in this evaluation was developed from the Missouri Guidance Competency Evaluation Survey (MGCES) by Gysbers, Lapan, Multon, & Lukin (1996). The CSE consists of 41 items and is divided into three areas: Area I-Career

Planning & Exploration; Area 2-Educational & Vocational Development; and Area 3-Self-Knowledge. The first two areas (Career Planning & Exploration and Educational & Vocational Development) were adapted from the middle school form of the MGCES. The third section, Self-Knowledge, was developed from the *Snapshots Today* (Bridges) curriculum to more closely measure curriculum-related objectives. Participants were asked to rate their confidence level for each item on the CSE on a 7-point Likert scale that ranged from very low to very high.

In addition to these three areas, the CSE survey is also divided into seven different categories. Category A measures career exploration and planning and includes statements about exploring careers, understanding interests and abilities and how these factors influence career choices, and preparing for a career and making plans for the future. Category C measures students' understanding of how gender can influence one's choices about classes and jobs and includes statements about handling teasing from students and disapproval from adults when taking courses or choosing a career typically held by members of the opposite gender. Category E measures students' confidence in preparing for and finding jobs, and includes items related to applying for a job, what employers expect, how to look for a part-time job, what jobs are available, and job interviewing skills. Category N measures students' confidence in learning how to use leisure time, and includes statements about activities in which they could become involved, deciding which activities are best for them, and discovering activities they can engage in when they are older. Category J measures students' confidence in improving their study and learning skills and includes statements related to managing time, listening, asking questions in class, organizing homework materials, taking notes, starting and finishing assignments, and knowing how to perform well on tests. Category M measures students' confidence in learning from friends and others about high school and includes statements related to understanding the

challenges of high school, determining where to go for help, and knowing what will be expected in high school. Category O measures students' confidence in planning for high school and beyond, and includes items related to understanding high school credits and graduation requirements, selecting courses, comprehending how academic skills relate to career goals, choosing activities that meet one's interests and goals, understanding the importance of completing high school and how it can prepare a person for post-secondary education, and determining knowledge of vocational technical schools courses.

### Findings

A total of 2057 pre-test surveys and 1312 post-test surveys were completed. Paired sample t-tests were conducted for each of the three areas and seven categories of the CSE (see Table 2). Each t-test showed a significant increase in student confidence from the pre- to the post-assessment, indicating that upon completion of the Bridges program, students felt more confident in their understanding and knowledge of each of the subscales of the CSE.

Table 2

*Pre and post comparisons for the three areas and seven categories of the CSE.*

Variable	Mean	Level of Significance
Area I Career Planning and Exploration	Pre: 5.01 Post: 5.84	$p < .01$
Area II Educational and Vocational Development	Pre: 5.47 Post: 5.67	$p < .01$
Area III Self-Knowledge (Bridges Curriculum Items)	Pre: 5.55 Post: 5.79	$p < .01$
Category A Exploring and Planning for Careers	Pre: 5.53 Post: 5.85	$p < .01$
Category C Understanding How Being Male or Female Relates to Classes and Jobs	Pre: 5.35 Post: 5.65	$p < .01$
Category E Preparation for Finding Jobs	Pre: 5.18 Post: 5.56	$p < .01$
Category J Improving Study and Learning Skills	Pre: 5.42 Post: 5.58	$p < .01$
Category N Learning How to Use Leisure Time	Pre: 5.62 Post: 5.89	$p < .01$
Category O Planning for School and Beyond	Pre: 5.61 Post: 5.77	$p < .01$
Category M Learning from Friends and Others about High School	Pre: 5.59 Post: 5.81	$p < .01$

Several student characteristics were examined to determine if there were differences between groups on the pre- and post-test results. Gender was the first independent variable to be examined. For the pre-test, there was a significant difference between males and females for category C, *Understanding How Being Male or Female Relates to Classes and Jobs*, ( $p < .01$ , mean score for males = 5.49, mean score for females = 5.24) and category N, *Learning How to Use Leisure Time*, ( $p < .05$ , M for males = 5.62, M for females = 5.72) with males scoring higher than females on category C and females scoring higher than males on category N. Post-test results did not show significant differences between males and females in these two categories or any of the other categories/areas of the CSE, indicating that females' confidence level increased for category C and males' confidence level increased for category N upon completion of the Bridges curriculum.

Grade level was the second category to be examined. Grade level was categorized as middle school for students in the 7<sup>th</sup> and 8<sup>th</sup> grades, and high school for students in the 9<sup>th</sup> to the 12<sup>th</sup> grades. For the pre-test, there was a significant difference between groups on category C, *Understanding How Being Male or Female Relates to Classes and Jobs*, ( $p < .01$ , mean score for middle school = 5.48, mean score for females = 5.31) and category E, *Preparing for and Finding Jobs*, ( $p < .01$ , mean score for middle school = 5.38, mean score for high school = 5.17) with middle school students scoring higher than high school students on both of these subscales during the pre-test. However, the post-test results did not show any differences between the groups on these or any of the other subscales of the CSE. In addition, the mean scores increased for both groups on all subscales during the post-test assessment, indicating that both high school and middle school students felt more confident upon completion of the curriculum.

Ethnicity was the third area to be examined. For the purposes of data disaggregation, students were initially categorized by their reported ethnic status. However, due to an unequal representation of minority versus white students, and because the ethnicity of a large number of students was unknown ( $n = 637$ ), the researchers decide to compare all non-white students to white students. It should be noted, however, that there continues to be an overrepresentation of white students in this sample in comparison to non-white students. No significant differences were found between the two groups during the pre-test administration. A significant difference was found between the groups during the post-test administration on category M, *Learning from Friends and Others about High School*, ( $p < .05$ , mean score for non-white students = 5.93, mean score for white students = 5.76), with ethnic minority students showing more confidence during the post-test administration in comparison to white students.

Free and reduced lunch status was the final area to be examined. This variable is commonly used to examine whether differences in socioeconomic status (SES) affect educational outcomes. Students were categorized into three areas: qualifies for free lunch, qualifies for reduced lunch, does not qualify for free or reduced lunch. Significant differences were found in the three main areas of the CSE and on five of the seven categories (see Table 3). Post-hoc analyses were conducted to determine exactly which groups differed from one another. Significant differences consistently occurred between the free lunch and reduced lunch groups and between the reduced lunch group and the students who did not qualify for free or reduced lunches (non-qualifiers).

Table 3

*Pre-test differences for students receiving free lunch and reduced lunch and student who do not qualify for free or reduced lunches.*

<b>Variable</b>	<b>Category</b>	<b>Mean Pre</b>	<b>Pretest <i>p</i> Value</b>	<b>Mean Post</b>	<b>Posttest <i>p</i> Value</b>
Area I Career Planning and Exploration	Free	5.74	<i>p</i> < .01	5.92	<i>p</i> = .15
	Reduced	5.35		5.76	
	Neither Free or Reduced	5.73		5.95	
Area II Educational and Vocational Development	Free	5.72	<i>p</i> < .01	5.78	<i>p</i> = .08
	Reduced	5.33		5.60	
	Neither Free or Reduced	5.69		5.82	
Area III Self-Knowledge (Bridges Curriculum Items)	Free	5.84	<i>p</i> < .01	5.90	<i>p</i> = .09
	Reduced	5.50		5.73	
	Neither Free or Reduced	5.79		5.93	
Category A Exploring and Planning for Careers	Free	5.76	<i>p</i> < .01	5.92	<i>p</i> = .37
	Reduced	5.45		5.79	
	Neither Free or Reduced	5.70		5.95	
Category E Preparation for Finding Jobs	Free	5.53	<i>p</i> < .01	5.70	<i>p</i> < .01
	Reduced	4.91		5.37	
	Neither Free or Reduced	5.46		5.86	

Category N Learning How to Use Leisure Time	Free	5.95		6.04	
	Reduced	5.22	$p < .01$	5.88	$p = .31$
	Neither Free or Reduced	5.94		6.04	
Category O Planning for School and Beyond	Free	5.85		5.91	
	Reduced	5.48	$p < .01$	5.65	$p < .05$
	Neither Free or Reduced	5.84		5.90	
Category M Learning from Friends and Others about High School	Free	5.83		5.98	
	Reduced	5.38	$p < .01$	5.75	$p = .09$
	Neither Free or Reduced	5.87		5.99	
Category C Understanding How Being Male or Female Relates to Classes and Jobs	Free	5.49		5.79	
	Reduced	5.34	$p = .12$	5.59	$p = .14$
	Neither Free or Reduced	5.58		5.84	
Category J Improving Study and Learning Skills	Free	5.60		5.63	
	Reduced	5.35	$p = .13$	5.61	$p = .92$
	Neither Free or Reduced	5.57		5.62	

Post-test analysis for this independent variable (free/reduced lunch) revealed that the mean scores increased for each of the groups, with all groups reporting more confidence in their knowledge and understanding of the items on the CSE upon completion of the Bridges curriculum. Furthermore, significant differences for the post-test were only found between two

categories: Category E, *Preparation for Finding Jobs*, ( $p < .01$ , mean score for free lunch = 5.70, mean score for reduced lunch students = 5.37, mean score for non-qualifiers = 5.85) and Category O, *Planning for School and Beyond* ( $p < .01$ , mean score for free lunch = 5.91, mean score for reduced lunch students = 5.65, mean score for non-qualifiers = 5.90). The mean scores did increase from the pre- to the post-test assessment for all groups in these two categories, indicating an increase in confidence levels.

Grade point average (GPA) and number of student absences were also examined for the sites that provided this data. These constructs were assessed to determine if there were changes in students' GPA and attendance before and after exposure to the Bridges curriculum. These results should be interpreted with caution due to the fact that they are not representative of the entire sample. There was a significant change ( $p < .05$ ) between the first and second semester GPA for the representative sample (semester 1 GPA = 82.09%, semester 2 GPA = 84.43%) (see Figure 1). Note that although the difference is significant, the actual difference between the GPA mean score is -.342. The sample size is rather large ( $n = 500$ ), making small differences in GPA statistically significant. In addition, it is impossible to conclude that participation in the Bridges program was solely responsible for improvements in academic performance since changes in GPA (positive or negative) could be due to a variety of factors.

Paired sample t-tests conducted on student absences revealed that the number of absences increased from the first to the second semester (see Figure 2). The mean absences for semester one of the representative sample ( $n = 500$ ) was 1.58 days absent and the mean absences for semester two was 1.73 days absent. This difference was not significant ( $p > .05$ ).

Figure 1

GPA from semester one and semester two for a representation of the sample.

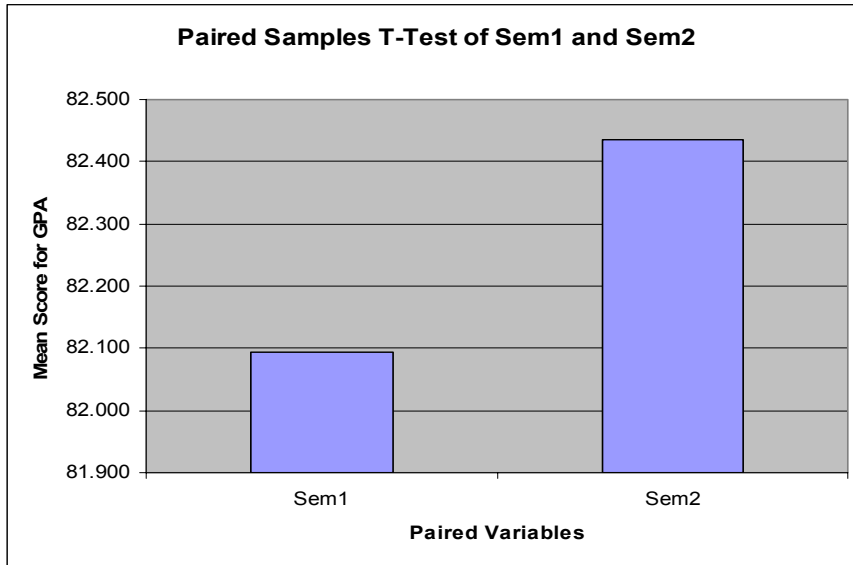
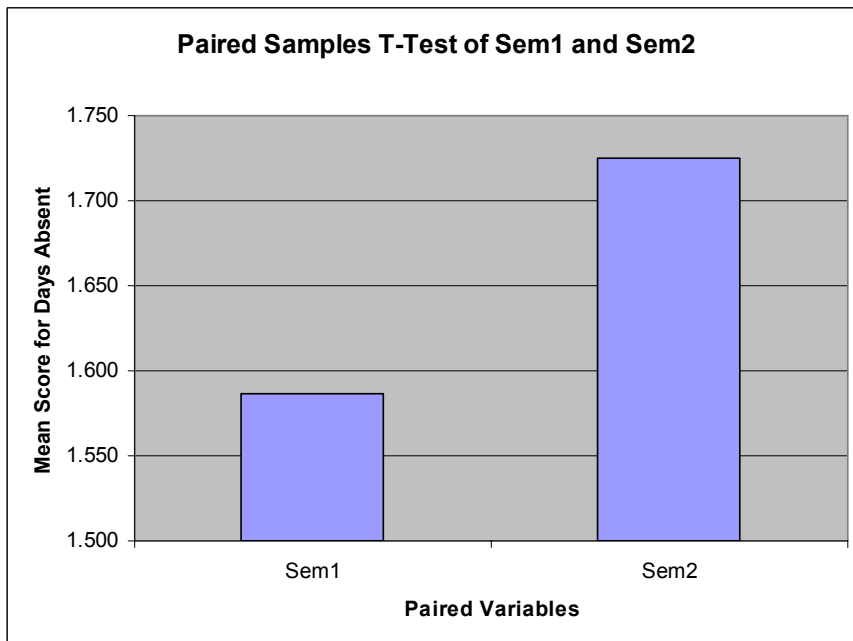


Figure 2

Absences for semester one and semester two for a representation of the the



## Discussion

Results of year-two data analysis revealed significant increases from the pre- to the post-assessment on all three areas and seven categories of the CSE, which is consistent with the year one evaluation. The results show students' confidence level and efficacy increased in the areas of (a) Career Planning and Exploration, (b) Educational and Vocational Development, and (c) Self-Knowledge (items specific to the Bridges Proactive School curriculum). Furthermore, upon conclusion of the Bridges program, students reported increased confidence in exploring and planning for careers, engaging in job preparation and leisure activities, understanding the relationship between gender and course/job selection, planning for school and beyond, learning from friends and others about high school, and improving study and learning skills

Changes in GPA and number of absences were found for a representative sample, generated from sites that provided this institutional data. Although improvements in GPA were promising, we must interpret these results with caution. Conducting a program evaluation in which students who receive the Bridges curriculum are compared with a control group who do not would help us better determine the curriculum's impact on student academic performance.