

Preliminary Evaluation of the Impact of Proactive Schools Curriculum

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This report summarizes the preliminary outcomes of the Evaluation of the Proactive Schools Curriculum. The Proactive Schools Curriculum is an intense school-wide intervention targeted at improving students' self efficacy, agency, motivation and sense of direction. The Data from 4 districts was collected in the 2004-5 school year. Pretest and Posttest survey data and institutional data were collected and analyzed. The results of preliminary analyses are presented along with the implications for the project's second year.

Method

Twenty-two schools across the US and 3 schools in Canada participated in the study. A total of 3187 *Career-Self Efficacy* (CSE) (Gysbers, Lapan, Multon, & Lukin, 1996) surveys was completed by students. Students were given the CSE before and after receiving the Bridges Proactive School curriculum. In addition to survey data, institutional data was collected from each of the sites. This information included gender, ethnicity, attendance, grade point average, and achievement test scores. Additional information, such as, whether or not the student was an English language learner and whether or not the student received special education services and free/reduced lunch was also obtained from each school's data coordinator.

Participants

Participants were chosen on the basis of their grade and their enrolment in the course where they were exposed to the Bridges Proactive School curriculum. Overall, 3187 students were surveyed and were exposed to the Bridges Proactive School curriculum. Of the total students surveyed, 50% were male and 49% were female (see Table 1). Over 70% of students in the study were white. Native American, Hispanic, Black, and Asian students made up 6% of the

sample. Approximately 2.5% of the participants received free lunch at school and 1.6% received reduced lunch. 6% of the sample received special education services and only .1% of the sample were English language learners.

Table 1

Demographic Data

Category	N	%
Gender		
Female	1561	49.0
Male	1600	50.2
Missing Data	26	.8
Ethnicity		
Native American	97	3.0
Black	20	.6
Asian	47	1.5
White	2303	72.3
Hispanic	51	1.6
Missing Data	669	21.0
Free and Reduced Lunch		
Free	79	2.5
Reduced	52	1.6
Special Education Services		
Receive Services	180	12.0
English Language Learner		
ELL Services	4	.1

Instrumentation

The CSE (see Appendix) consists of two areas *Career Planning and Exploration* and *Educational and Vocational Development*. For the purposes of this study a third area, *Self-Knowledge*, was added that included statements specific to the Bridges Proactive School curriculum. Overall, the survey consisted of 41 items. Participants were asked to rate their confidence level to each item on a 7-point Likert scale that ranged from very low to very high.

In addition to the three areas of the CSE survey, the survey is divided into seven categories. Category A factors measure career exploration and planning and include statements about exploring careers, understanding interests and abilities and how one's interest and abilities help them to make career choices, and the student's understanding of preparing for a career and making plans for the future. Category C measures the students' understanding of how their gender relates to classes and jobs and includes statements about handling teasing from students and adult disapproval when taking courses or choosing a career typically held by members of the opposite gender. Category N measures the students' confidence in learning how to use their leisure time, and includes statements about activities they could get involved in, finding out which activities are best for them, and activities they can do when they are older. Category J measures the students' confidence in improving their study and learning skills and includes statements related to organizing time, listening, asking questions in class, organizing homework materials, taking notes, starting and finishing assignments, and how to perform well on tests. Category M measures the students' confidence in learning from friends and others about high school and includes statements related to understanding the challenges of high school, where to go for help, and knowing what will be expected of them in high school. Category O measures the students' confidence in planning for high school and beyond, and includes items related to

understanding high school credits, graduation requirements, selecting courses, how academic skills relate to career goals, selecting activities that meet their interests and goals, the importance of completing high school, how high school can prepare them for continuing their education, and their knowledge level of vocational technical schools courses. Finally, Category E measures the 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 interview skills.

Results

A total of 3187 surveys were completed, however, due to student absences and other factors related to students not completing either a pretest or a posttest, a total of 2516 pre-assessments and 2251 post-assessments were completed. Accounting for missing data, the total number of completed pre and post-assessments for Area I of the CSE consisted of 1593 participants with 1107 participants completing Area II of the CSE, and 1089 students completing Area III (bridges curriculum items).

Paired-samples *t*-tests were conducted on each of the three areas (See Table 2) and on each of the seven categories of the CSE. Each *t* test showed a significant increase in skills from the pre to the post-assessment.

In Area I, Career Planning and Exploration, participants showed a significant increase ($p < .01$) from the pre-assessment ($M = 5.03$, $SD = 1.01$) to the post-assessment ($M = 5.83$, $SD = .75$), indicating that the participants felt more confident in their career planning and exploration abilities upon completion of the Bridges Proactive School curriculum. Furthermore, there was a significant increase from pre to post-assessment on nine out of ten items in Area I.

In Area II, Educational and Vocational Development, participants showed a significant increase ($p < .01$) from the pre-assessment ($M = 5.34, SD = .89$) to the post-assessment ($M = 5.66, SD = .79$), indicating that upon completion of the Bridges Proactive School curriculum participants felt more confident in their educational and vocational knowledge and skills. There was a significant increase from pre to post-assessment on nineteen out of the twenty-one items in Area II.

In Area III, Self-Knowledge (items specific to the Bridges Proactive School curriculum), participants showed a significant increase ($p < .01$) from the pre-assessment ($M = 5.41, SD = 1.07$) to the post-assessment ($M = 5.81, SD = .81$). This change indicates that upon completion of the curriculum, participants showed an increased confidence level in their decision making skills and knowledge of the choices and skills needed to make informed career decisions.

Additionally, all of the survey items in Area III showed a significant increase from the pre to the post-assessment.

Table 2

Pre and post comparisons for the three areas of the CSE

Variable	Mean	Standard Deviation	Level of Significance
Area I Career Planning and Exploration	Pre: 5.03 Post: 5.83	Pre: 1.01 Post: .75	$p < .01$
Area II Educational and Vocational Development	Pre: 5.34 Post: 5.66	Pre: .89 Post: .79	$p < .01$
Area III Self-Knowledge (Bridges Curriculum Items)	Pre: 5.41 Post: 5.81	Pre: 1.07 Post: .81	$p < .01$

Paired-samples t tests were conducted on the seven categories of the survey (A, C, N, E, O, M, J). Category A examines one's confidence in exploring and planning for careers (See Table 3). A significant ($p < .01$) increase in the mean score was found between the pre-assessment ($M = 4.90$, $SD = 1.0$) and the post-assessments ($M = 5.81$, $SD = .85$). Paired-samples t tests conducted on the individual survey items in Category A revealed that all items had an increase in their mean score, with three out of the four items showing a significant increase from the pre-assessment to the post-assessment ($p < .01$).

Table 3

Pre and post comparisons for the survey items for Category A

Category A Questions	Mean	Standard Deviation	Level of Significance
I understand my interests and abilities and how they help me make a career choice	Pre: 4.62 Post: 5.85	Pre: 1.01 Post: 1.04	$p < .01$
I know how to explore careers in which I may be interested	Pre: 5.39 Post: 5.88	Pre: 1.50 Post: 1.11	$p < .01$
I understand the importance of making plans for the future (jobs, vocational, technical education etc.)	Pre: 5.81 Post: 5.89	Pre: 1.29 Post: 1.53	Not significant
I understand how to prepare for careers in which I may be interested	Pre: 5.14 Post: 5.61	Pre: 1.44 Post: 1.10	$p < .01$

Category C (See Table 4) examines one's understanding of how gender relates to classes and jobs. A significant ($p < .01$) increase in the mean score was found between the pre-assessment ($M = 5.49$, $SD = 1.16$) and the post-assessment ($M = 5.76$, $SD = 1.02$). Paired-samples t tests conducted on the individual survey items in Category C revealed that all items showed a

significant increase in their overall mean score from the pre-assessment to the post-assessment ($p < .05$).

Table 4

Pre and post comparisons for the survey items for Category C

Category C Questions	Mean	Standard Deviation	Level of Significance
I know how to handle adult disapproval if I have an interest in choosing a class usually taken or a job usually filled by the opposite sex.	Pre: 5.02 Post: 5.41	Pre: 1.59 Post: 1.35	$p < .01$
All classes and jobs are acceptable for both males and females.	Pre: 6.10 Post: 6.19	Pre: 1.28 Post: 1.15	$p < .05$
I can handle kidding from other students if I have an interest in choosing a class usually taken or a job usually filled by the opposite sex.	Pre: 5.35 Post: 5.69	Pre: 1.56 Post: 1.31	$p < .01$

Category N (see Table 5) measures one's knowledge and confidence in leisure activities. A significant ($p < .01$) increase in the mean score was found between the pre-assessment ($M = 5.74$, $SD = 1.13$) and the post-assessment ($M = 5.99$, $SD = .95$). Paired-samples t tests conducted on the individual survey items in Category N revealed that all items showed a significant increase in their overall mean score from the pre-assessment to the post-assessment ($p < .01$).

Table 5

Pre and post comparisons for the survey items for Category N

Category N Questions	Mean	Standard Deviation	Level of Significance
I know how to find out which leisure activities are best for me	Pre: 5.85 Post: 5.99	Pre: 1.35 Post: 1.05	$p < .01$
I know about leisure activities I can do when I'm older.	Pre: 5.31 Post: 5.77	Pre: 1.54 Post: 1.78	$p < .01$
I know about different hobbies, sports, and activities in which I could get involved	Pre: 5.14 Post: 5.61	Pre: 1.44 Post: 1.11	$p < .01$

Category E (see Table 6) measures ones' knowledge and confidence in preparing to find and apply for a job. A significant ($p < .01$) increase in the mean score was found between the pre-assessment ($M = 4.99$, $SD = 1.27$) and the post-assessment ($M = 5.50$, $SD = 1.01$). Paired-samples t tests conducted on the individual survey items in Category E revealed that all items had a significant increase in their overall mean score from the pre-assessment to the post-assessment ($p < .01$).

Table 6

Pre and post comparisons for the survey items for Category E

Category E Questions	Mean	Standard Deviation	Level of Significance
I know what employers expect of workers.	Pre: 5.54 Post: 5.88	Pre: 1.44 Post: 1.11	$p < .01$
I know how to look for a part-time summer job.	Pre: 5.19 Post: 5.63	Pre: 1.56 Post: 1.26	$p < .01$
I know what jobs are available locally.	Pre: 4.83 Post: 5.28	Pre: 1.62 Post: 1.38	$p < .01$
I know job interview skills.	Pre: 4.57 Post: 5.33	Pre: 1.66 Post: 1.31	$p < .01$
I know how to apply for a job.	Pre: 4.81 Post: 5.44	Pre: 1.68 Post: 1.41	$p < .01$

Category O (see Table 7) measures one's confidence in planning for school and beyond. A significant ($p < .01$) increase in the mean score was found between the pre-assessment ($M = 5.44$, $SD = .98$) and the post-assessment ($M = 5.77$, $SD = .81$). Paired-samples t tests conducted on the individual survey items in Category O revealed that six out of the seven items showed a significant increase in their overall mean score from the pre-assessment to the post-assessment ($p < .01$).

Table 7

Pre and post comparisons for the survey items for Category O

Category O Questions	Mean	Standard Deviation	Level of Significance
I know what employers expect of workers.	Pre: 5.54 Post: 5.88	Pre: 1.44 Post: 1.11	$p < .01$
I know how to look for a part-time summer job.	Pre: 5.19 Post: 5.63	Pre: 1.56 Post: 1.26	$p < .01$
I know what jobs are available locally.	Pre: 4.83 Post: 5.28	Pre: 1.62 Post: 1.38	$p < .01$
I know job interview skills.	Pre: 4.57 Post: 5.33	Pre: 1.66 Post: 1.31	$p < .01$
I know how to apply for a job.	Pre: 4.81 Post: 5.44	Pre: 1.68 Post: 1.41	$p < .01$

Category M (see Table 8) measures one's confidence in learning from friends and others about high school. A significant ($p < .01$) increase in the mean score was found between the pre-assessment ($M = 5.51$, $SD = 1.08$) and the post-assessment ($M = 5.74$, $SD = .95$). Paired-samples t tests conducted on the individual survey items in Category M revealed that all of the items showed a significant increase in their overall mean score from the pre-assessment to the post-assessment ($p < .01$).

Table 8

Pre and post comparisons for the survey items for Category M

Category M Questions	Mean	Standard Deviation	Level of Significance
I understand the challenges students have in high school.	Pre: 5.65 Post: 5.81	Pre: 1.28 Post: 1.11	$p < .01$
I know what will be expected of me in high school.	Pre: 5.57 Post: 5.85	Pre: 1.25 Post: 1.15	$p < .01$
I know where to go when I have a problem concerning high school.	Pre: 5.33 Post: 5.58	Pre: 1.52 Post: 1.32	$p < .01$

Category J (see Table 9) measures one's confidence in improving study and learning skills. A significant ($p < .01$) increase in the mean score was found between the pre-assessment ($M = 5.44$, $SD = .98$) and the post-assessment ($M = 5.63$, $SD = .95$). Paired-samples t tests conducted on the individual survey items in Category J revealed that all items had a significant increase in their overall mean score from the pre-assessment to the post-assessment ($p < .01$).

Table 9

Pre and post comparisons for the survey items for Category J

Category J Questions	Mean	Standard Deviation	Level of Significance
I know how to organize my class and homework materials	Pre: 5.57 Post: 5.67	Pre: 1.43 Post: 1.25	$p < .01$
I can take good notes.	Pre: 5.14 Post: 5.43	Pre: 1.49 Post: 1.60	$p < .01$
I know how to do well on tests.	Pre: 5.43 Post: 5.58	Pre: 1.37 Post: 1.28	$p < .01$
I know how to organize my time.	Pre: 5.25 Post: 5.53	Pre: 1.39 Post: 1.29	$p < .01$
I know how to listen and ask questions in class.	Pre: 5.63 Post: 5.79	Pre: 1.23 Post: 1.19	$p < .01$
I know how to start and finish my assignments well.	Pre: 5.62 Post: 5.82	Pre: 1.25 Post: 1.19	$p < .01$

The New York sites (n = 1081) provided complete institutional data for the project. This data was analyzed separately from the other sites in order to determine if there were significant differences between gender and ethnicity and to determine if changes occurred from the pre-assessment period to the post-assessment period for grade point average and absences.

A one-way analysis of variance (ANOVA) was conducted between the independent variable of gender and the CSE, consisting of the pre and post-assessment scores for the three areas (Area I, Area II, Area III) and the seven categories (Categories A, C, N, E, O, M, J). This analysis did not reveal any significant differences, indicating that gender was not a factor in how the participants responded to the survey. A one-way ANOVA was conducted between the independent variable of ethnicity and the dependent variables (CSE). No significant differences

were found between ethnicity and the pre and post-assessments of the three areas and seven categories of the CSE, indicating that ethnicity was not a factor in how the participants responded to the survey.

Finally, a paired-samples *t* test was conducted on the New York site's grade point average (GPA) and absences from pre (before receiving the Bridges curriculum) to post (after receiving the Bridges curriculum). This analysis revealed a significant ($p < .01$) decrease in the participants' GPA from the pre-assessment ($M = 3.24$, $SD = .46$) to the post-assessment ($M = 3.26$, $SD = .49$) periods. A significant increase was found in the students' absences ($p < .01$) from the pre-assessment ($M = 1.46$, $SD = 1.8$) to the post-assessment ($M = 1.73$, $SD = 1.87$) periods.

Discussion

Results of the year-one data analysis revealed significant increases from the pre to the post-assessment on all three of the main areas of the CSE. Thus, the results show that the participants increased in their confidence level and efficacy in the areas of 1) Career Planning and Exploration, 2) Educational and Vocational Development, and 3) Self-Knowledge (items specific to the Bridges Proactive School curriculum). In addition, pre and post-assessments revealed that the participants' confidence also increased in the seven categories of the CSE, indicating that the participants' confidence and knowledge increased in the areas of: exploring and planning for careers, job preparation activities, leisure activities, 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.

The New York site data was separated from the other schools' data due to the fact that they provided the researchers with a complete set of the requested institutional data; therefore,

GPA and absences could be analyzed to see if there was a significant difference between the pre and post-assessment periods for these two constructs. An analysis of the GPA construct revealed a significant decrease from the pre to the post-assessment and analysis of absences showed a significant increase in absences from the pre to the post-assessment. We were unable to demonstrate at this point that the Bridges Proactive School curriculum had an effect on GPA or attendance for this population.

Issues Related to Evaluation Efforts the Second Year of the Project

The single group pre-test post-test design yielded convincing evidence that the Proactive School Curriculum is having an impact on students' self-efficacy across a range of important domains that should be related to enhance academic achievement and career development. Additional analyses contrasting student subgroups (high initial GPA vs. low initial GPA), will allow us to more precisely describe the beneficial impact of the curriculum. **Tighter control of posttest data collection is needed so that less data is lost due to some students failing to complete the survey. This issue needs to be discussed with data coordinators and a satisfactory solution found.**

Institutional data needs to be submitted in a more standardized format to enable aggregation of data across districts. **The Center will to work with data coordinators to develop a more standardized data template that may request less data but do so in a more systematic form.**

No site was able to collect control data. These data would be very helpful strengthening evidence for the impact of the curriculum. **The Center will to work with data coordinators to determine the feasibility of collecting posttest survey data (from year 2 students) and institutional data from year (1 and year 2 students).**

Overall, it is our impression that the data coordinators are motivated to collect data from students in their own schools and may not see the importance of undertaking the difficult task of collecting either institutional or control data. **The Center will consult with Bridges leadership to determine whether additional incentives or alternative approaches would be effective in encouraging compliance with evaluation data needs requests.**

Finally, given the compelling evidence that the Proactive School Curriculum is having an impact on students' self-efficacy it would be helpful to also gather data on variables (achievement motivation, recognized relevance, and internalizing self-management skills and routines) that probably mediate the effects of the curriculum on achievement and post high school success. **The Center will develop a new instrument to gather mediating variable data and determine how to collect these data in year 2 (post curriculum) to supplement and extend the year 1 findings.**

References

Gysbers, N.C., Lapan, R., Multon, K., & Lukin, L, (1996). Missouri guidance competency evaluation survey 6-9 or 9-12. Columbia, MO: Assessment Resource Center.