

Neighborhood Bridges: 2010-2011 Evaluation Report

July 27, 2011

Submitted to

The Children's Theatre Company

By

Debra Ingram



CENTER FOR
APPLIED RESEARCH AND
EDUCATIONAL IMPROVEMENT

COLLEGE OF EDUCATION
+ HUMAN DEVELOPMENT

UNIVERSITY OF MINNESOTA

Report Highlights

In 2010-2011, students in twenty-five classrooms from eleven schools in the Minneapolis-Saint Paul metropolitan area participated in The Children's Theatre Company's Neighborhood Bridges (Bridges) program. The Children's Theatre Company contracted with the University of Minnesota's Center for Applied Research and Educational Improvement (CAREI) to evaluate Bridges in these classrooms. The purpose of the evaluation was to measure the quality of Bridges implementation and assess student learning in the areas of writing; knowledge and skills in theatre; retelling and dramatization; and critical literacy. Highlights from the results of the evaluation study are discussed below.

Implementation of Bridges

Data from surveys of classroom teachers and teaching artists indicate that Bridges was implemented very well in the twenty-five classrooms. Classroom teachers and teaching artists were satisfied with Bridges events, such as the Crossing Bridges Festival, and the logistics of carrying out the program. For example, all of the classroom teachers and teaching artists marked agree or strongly agree in response to the statement, "The Crossing Bridges Festival ran smoothly" and the statement, "Performing in the Crossing Bridges Festival was a valuable experience for my students." The classroom teachers and teaching artists also indicated that the Bridges components were effective in improving students' skills. For example, ninety-seven percent of the classroom teachers and teaching artists marked effective or very effective when asked how effective the theatre games and warm-ups were for building students' skills. Ninety-five percent marked effective or very effective when asked how effective it was for students to retell their stories to the class.

Bridges classroom teachers reported that some of the Bridges strategies are useful for instruction beyond the Bridges sessions themselves. Ninety-six percent of the classroom teachers said they have used the discussion, questioning and comprehension tools introduced in Bridges outside of the Bridges sessions. Ninety-two percent said they have used the Bridges focus and community building tools outside of Bridges sessions.

To strengthen the quality of Bridges, staff may want to examine the program aspects that classroom teachers and teaching artists rated low relative to their ratings for other aspects of the program. For example, six percent of the classroom teachers and teaching artists marked strongly disagree for the item, "I have a collaborative relationship with my teaching artist/classroom teacher" on the May survey. Twelve percent of the classroom teachers and teaching artists indicated that having students perform short skits for their peers was only somewhat effective for improving students' skills. And nine percent of the classroom teachers and teaching artists said the Fantastic Binominal or other Bridges writing games were not at all effective (2%) or somewhat effective (7%) for developing students' skills.

Student Learning in Writing

Seventy-four percent of the students met the benchmark score of ten points or higher (out of a total possible twenty points) on the spring *Neighborhood Bridges Writing Assessment* for students in grades four through six. In addition, there was a statistically significant increase from the baseline assessment in the fall to the spring assessment on the overall score and the dimensions of

organization, style, mechanics and creativity. The average overall score in the fall was 10.71 points and the average overall score in the spring was 12.42 points. There was also a statistically significant increase from fall to spring in the number of words students wrote on the writing assessment. The average total word count in the fall was 74.29 and the average total count in the spring was 105.97 words.

The average score on each of the rubric dimensions and the average overall score on the writing assessment increased from fall to spring for students in grades two and three. However, the size of the increases was smaller than the size of the increases for students in grades four through six. The average overall score in the fall was 9.91 points (out of a total possible 20 points) and the average overall score in the spring was 10.39 points for students in grades two and three. The largest increase from fall to spring among the five dimensions on the scoring rubric occurred for the dimension of mechanics. The average in the fall was 1.68 points (out of a total possible 4 points) and the average in the spring was 1.86 points.

Data from the classroom teacher and teaching artist surveys indicate that students' writing skills improved during their participation in Bridges. For example, on the May survey ninety-three percent of the classroom teachers and teaching artists marked agree or strongly agree for the statement, "Students write with descriptive details." Students also reported that their writing skills had improved since the fall. Eighty-nine percent of the students in grades four through six chose a response of agree or strongly agree for the survey item, "From the beginning of the year until now I've gotten better at writing stories." In addition, seventy-two percent of the students in grades two and three marked yes when asked on the student survey if they were a better writer.

Students' Knowledge and Skills in Theatre

The evaluation included two measures of students' knowledge and skills in theatre: the *Neighborhood Bridges Responding to a Play Assessment* and the *Neighborhood Bridges Theatre Vocabulary Recognition Test*. The responding assessment includes a set of eight open-ended questions that students answer in writing after seeing a professional theatre performance at CTC. There are two versions of the tool, one for students in grades four through six and one for students in grades two and three. Over three-fourths (79%) of the students met the benchmark score of sixteen points or higher (out of a total possible thirty-two points) on the spring *Neighborhood Bridges Responding to a Play Assessment* for students in grades four through six. The average overall score was 18.70. The average overall score on the new version of the responding assessment, which was developed for students in grades two and three, was 17.73.

Results of the vocabulary test, which students complete in the fall and again in the spring, demonstrate that students' knowledge of theatre vocabulary increased during their participation in Bridges. The average score in the fall was 11.81 points out of a possible 20 points; the average score in the spring was 14.89. The difference from fall to spring was statistically significant. Fifty-six percent of the students met the benchmark score of 16 points or higher for this assessment tool.

Classroom teachers and teaching artists also noticed increases in students' theatre skills. At least ninety percent of the classroom teachers and teaching artists marked agree or strongly agree when asked about improvements in the seven skills which make up the learning area of retelling and dramatization on the May survey. Examples of these skills are students' ability to use clear diction

when speaking in front of others and students' ability to animate their bodies in the scenes they perform in Bridges.

Students' Skills in Critical Literacy

The May survey asked classroom teachers and teaching artists whether they had seen changes in their students' critical literacy skills during their participation in Bridges and their survey responses indicate that students developed skills in this area. Among the six specific skills listed as part of critical literacy on the survey the highest proportion of classroom teachers and teaching artists (68%) marked strongly agree for the item, "Students have become more skilled in looking for meaning in stories." Over half marked strongly agree for the items concerning students' ability to look for multiple perspectives in stories (57%) and students' skills in using acting and/or writing to transform the stories used in Bridges in ways that challenge underlying assumptions (52%).

In sum, the results of the evaluation study indicate that Bridges was implemented successfully in twenty-five classrooms of students in grades two through six during the 2010-2011 school year. Data from surveys of classroom teachers, teaching artists and students who participated in Bridges, along with data from assessment tools administered by the researchers provide evidence of what students learned during their participation in Bridges. Students increased their skills in writing, their knowledge and skills in theatre, and their knowledge in the areas of critical literacy and retelling and dramatization.

Table of Contents

Description of Neighborhood Bridges.....	1
Design and Methods.....	2
Results: Implementation of Neighborhood Bridges.....	9
Results: Student Learning in Neighborhood Bridges	14
Results from the Classroom Teacher and Teaching Artist Surveys.....	14
Results from the Student Survey.....	18
Responding to a Play Assessment Results.....	20
Theatre Vocabulary Recognition Test Results.....	25
Writing Assessment Results.....	26
Summary and Discussion.....	32
Appendix	35

List of Tables

Table 1: Grade Levels of Students in Bridges Classrooms	3
Table 2: Assessment of Student Learning in Neighborhood Bridges	5
Table 3: Ratings of Program Logistics: December	10
Table 4: Ratings of Program Logistics: May	11
Table 5: Satisfaction with Bridges Events	11
Table 6: Effectiveness of Bridges Components	12
Table 7: Classroom Teachers' Use of Bridges Strategies and Themes	13
Table 8: Perceptions of Student Learning: December	15
Table 9: Perceptions of Student Learning in Writing: May	16
Table 10: Perceptions of Student Learning in Retelling and Dramatization: May	17
Table 11: Perceptions of Student Learning in Critical Literacy: May	18
Table 12: Students' Reflections on their Learning: Grades Four through Six	19
Table 13: Students' Reflections on their Learning: Grades Two and Three	20
Table 14: Responding to a Play Assessment Grades Four through Six: Average Scores for Individual Items	21
Table 15: Responding to a Play Assessment Grades Four through Six: Overall Score	21
Table 16: Responding to a Play Assessment Grades Two and Three: Average Scores for Individual Items	23
Table 17: Responding to a Play Assessment Grades Two and Three: Overall Score	23
Table 18: Theatre Vocabulary Recognition Test Results	25
Table 19: Theatre Vocabulary Recognition Test Results by Grade Level	26
Table 20: Percentage of Students Who Meet the Benchmark for the Theatre Vocabulary Recognition Test by Grade Level	26

List of Tables (continued)

Table 21: Writing Assessment Grades Four through Six: Rubric Dimensions	27
Table 22: Writing Assessment Grades Two and Three: Rubric Dimensions	30

Tables in the Appendix

Table A1: Perceptions of Student Learning in Writing: May	37
Table A2: Perceptions of Student Learning in Retelling and Dramatization.....	37
Table A3: Perceptions of Student Learning in Critical Literacy: May.....	38
Table A4: Students' Reflections on their Learning: Grades Four through Six.....	39
Table A5: Writing Assessment: Rubric Dimensions	39

List of Figures

Figure 1: Responding to a Play Assessment Grades Four through Six: Average Scores for Individual Items.....	22
Figure 2: Responding to a Play Assessment Grades Two and Three: Average Scores for Individual Items.....	24
Figure 3: Writing Assessment Grades Four through Six: Average Scores by Rubric Dimension.....	28
Figure 4: Writing Assessment Grades Four through Six: Average Word Count	29
Figure 5: Writing Assessment Grades Two and Three: Average Scores by Rubric Dimension.....	30
Figure 6: Writing Assessment in Grades Two and Three: Average Word Count.....	31

Figures in the Appendix

Figure A1: Writing Assessment at Evergreen Park World Studies Elementary School: Average Scores by Rubric Dimension	40
Figure A2: Writing Assessment at Evergreen Park World Studies Elementary School: Average Word Count	41

In 2010-2011, students in twenty-five classrooms from eleven schools in the Minneapolis-Saint Paul metropolitan area participated in the Neighborhood Bridges (Bridges) program of the Children's Theatre Company (CTC). Six of the schools were located in the western metropolitan area:

- Elizabeth Hall International Elementary School
- Evergreen Park World Studies Elementary School
- Jefferson Community School
- Lyndale Community School
- Marcy Open Elementary School
- Noble Elementary School

Five of the schools were located in the eastern metropolitan area:

- Adams Spanish Immersion Magnet School
- Farnsworth Aerospace Magnet School
- Garlough Environmental Magnet School
- Jackson Preparatory Magnet School
- Maxfield Magnet Elementary School

A total of 625 students from grades two to six participated in Bridges across the twenty-five classrooms. This report presents the results of an evaluation of the Bridges program. CTC contracted with the University of Minnesota's Center for Applied Research and Educational Improvement (CAREI) to conduct the study. The purpose of the evaluation was to measure the quality of Bridges implementation and assess student learning in the areas of writing; knowledge and skills in theatre; retelling and dramatization and critical literacy.

Description of Neighborhood Bridges

Bridges is a 31-week program of storytelling and creative drama for elementary and middle school students intended to help them

- develop critical literacy skills
- recognize their capacity to become storytellers of their own lives
- develop their abilities to write, speak, and think clearly
- achieve state and national standards for theatre
- improve their achievement in reading and writing

Bridges was founded in 1997 by Peter Brosius, Artistic Director of CTC, and Jack Zipes, Professor of German and Comparative Literature at the University of Minnesota. Each week, Bridges brings

teaching artists into participating classrooms to work collaboratively with the classroom teacher. A typical two-hour Bridges session is composed of four parts:

The Fantastic Binominal: The teaching artist and students spontaneously create a story through free association based on two arbitrarily chosen nouns and a preposition. Then students create their own stories and write them in their Bridges notebook. Each week two or three students are asked to present their stories to their peers. The teaching artist and classroom teacher coach the students in using gestures and voice to dramatize their story.

Storytelling: The teaching artist and classroom teacher each tell a tale, often two different versions of the same tale, or tales related to each other. The tales are drawn from an anthology provided with the Bridges curriculum. Over the course of the year, tales are presented from several genres including fairy tales, pourquoi tales, and myths. The stories are followed by discussion designed to help students think critically about the content of the tales and the implications for their lives.

Skits and Theatre Games: Students work in small groups to create and perform brief skits based on the stories they have just heard. The teaching artist leads students in games designed to develop their skills in areas such as focus, diction, gestures, and collaboration.

Writing Games: Students participate in a reflective writing exercise to solidify the day's learning and incorporate the creative energy of their skits into their own stories.

In addition to the weekly Bridges components, students also do the following over the course of the program: create and perform one play at their school and a second play onstage at CTC; write letters to and receive letters from a pen pal at another Bridges school; and attend a professional production at CTC and meet their pen pals.

Although students do some writing as part of their weekly Bridges sessions, it is hoped that teachers incorporate some of students' Bridges writing into their regular writing instruction so that students have an opportunity to further develop their stories and their writing skills. Each week, the teaching artists and classroom teachers at each school meet for one hour to develop the lesson plans for upcoming sessions.

Design and Methods

The purpose of the evaluation was to measure the quality of Bridges implementation and assess student learning in areas such as writing and theatre. This section contains a description of the study participants and how the researchers collected and analyzed the data.

Study Participants

The study participants included the twenty-five classroom teachers and twenty-five teaching artists who provided Bridges to students in twenty-five different classrooms throughout the Minneapolis and Saint Paul metropolitan area. Six hundred and twenty-five students in grades two through six participated in Bridges across the twenty-five classrooms. Table 1 shows the number of Bridges

classrooms at each grade level and the number of Bridges classrooms at each grade level specifically for the east metro area and the west metro area.

Table 1
Grade Levels of Students in Bridges Classrooms

Grade Level of Students	Number of Classrooms Overall	Number of Classrooms in East Metro Area	Number of Classrooms in West Metro Area
Grade Two	1	0	1
Grade Two/Three	1	0	1
Grade Three	5	2	3
Grade Four	5	4	1
Grade Five	7	2	5
Grade Five/Six	4	0	4
Grade Six	2	2	0
<i>Total Number of Classrooms</i>	<i>25</i>	<i>10</i>	<i>15</i>

The researchers asked all fifty of the classroom teachers and teaching artists to complete the Decemberⁱ and May evaluation surveys and the researchers asked studentsⁱⁱ to complete the student evaluation survey in May. Different subgroups of students also participated in other parts of the study based on whether they attended a school located in the east metro area or the west metro area. Students who attended one of the six schools in the west metro area participated in the writing assessment. Students who attended one of the five east metro area schools participated in the two theatre assessment protocols. Students in four of the west metro classrooms also participated in the responding to a play assessment because the data was needed for one of the Bridges funders.

Due to the amount of funding available to support Bridges at Evergreen Park World Studies Elementary School, Bridges began there in December, rather than in September, as it did at the other ten schools. As a result, students at Evergreen Park participated in twenty-one weeks of Bridges instead of the standard thirty-one weeks. All other aspects of Bridges were the same in the Evergreen Park classrooms.

Data Collection Tools

Table 2 lists the areas of student learning assessed in the study and, for each area, the data collection tools, the people who provided the data, and the timeline for data collection. Each of the data collection tools is described separately below.

Writing Assessment

Students' skills in writing were measured with the *Neighborhood Bridges Writing Assessment*, a tool CAREI researchers and CTC staff developed by as part of an earlier study. The assessment is based on writing that students do during the Fantastic Binominal section of a routine Bridges session. To measure the change in students' writing skills from fall to spring, the assessment includes student writing samples collected in September during the first Bridges session and a second sample of writing collected in the spring. Typically, the spring writing sample is collected in May, during the final weeks of Bridges. In the current study, however, the spring sample was collected in March in order to meet the reporting requirements of some Bridges funders.

The scoring rubric for the *Neighborhood Bridges Writing Assessment*, which is aligned with the Minnesota Academic Standards in writing, describes four levels of achievement on five dimensions of writing: ideas, organization, style, mechanics, and creativity. The rubric also includes a count of the number of words in a sample of student writing. A team of two reviewers, who are trained by the researchers and CTC staff, read each piece of writing and assign a score for each dimension. One member of the team also counts the number of words in each piece.

The rubric was originally designed to assess student writing in grades four through six because, at that time, most Bridges students were in one of these grade levels. Over the past few years, however, Bridges has expanded into grades two and three and a new rubric was needed in order to include younger students in the writing assessment process. As part of the current study the researchers, CTC staff, and several Bridges classroom teachers developed a separate rubric for use in scoring the writing of younger students. The second rubric contains the same five dimensions as the original rubric and defines four levels of achievement for each dimension.

Due to the time intensive nature of the scoring process, the results in this study are based on writing from a sample of students in each Bridges classroom. Although every student in a classroom produced a piece of writing during the Fantastic Binominal section of a Bridges session, the researchers asked each classroom teacher to identify six students whose writing would be included in the study sample. Teachers used the following criteria to select the sample: two students who typically perform above average in reading and writing, two students who perform about average, and two students who typically perform below average. In addition, each student included in the sample needed to have the written consent of his or her parent/guardian to participate in the study. To protect student confidentiality, the writing samples were identified by code numbers rather than students' names and none of the papers had any mark that would indicate the student's typical performance level in reading and writing.

Table 2: Assessment of Student Learning in Neighborhood Bridges

Student Learning Area	Data Collection Tools	Who Provides the Data and when is it Collected?
Writing	<p>--<i>Neighborhood Bridges Writing Assessment</i></p> <p>--<i>Neighborhood Bridges Classroom Teacher Evaluation Surveys I and II</i></p> <p>--<i>Neighborhood Bridges Teaching Artist Evaluation Surveys I and II</i></p> <p>--<i>Neighborhood Bridges Student Evaluation Survey</i></p>	<p>Students from fifteen Bridges classrooms in six schools which are located in the western metropolitan area. A writing sample is collected from each student in the fall during one of the first Bridges sessions and a second sample is collected in May.</p> <p>All Bridges classroom teachers and teaching artists complete Survey I in December and Survey II in May.</p> <p>All Bridges students complete a survey in May.</p>
Knowledge and Skills in Theater	<p>--<i>Neighborhood Bridges Theatre Vocabulary Recognition Test</i></p> <p>--<i>Neighborhood Bridges Responding to a Play Assessment</i></p>	<p>Students from ten Bridges classrooms in five schools which are located in the eastern metropolitan area. Students complete the vocabulary survey in the fall during one of the first Bridges sessions and again in May.</p> <p>Students complete the responding to a play assessment worksheet in March after they attend a performance at CTC.</p>
Retelling and Dramatization	<p>--<i>Neighborhood Bridges Classroom Teacher Evaluation Surveys I and II</i></p> <p>--<i>Neighborhood Bridges Teaching Artist Evaluation Surveys I and II</i></p> <p>--<i>Neighborhood Bridges Student Evaluation Survey</i></p>	<p>All Bridges classroom teachers and teaching artists complete Survey I in December and Survey II in May.</p> <p>All Bridges students complete a survey in May.</p>
Critical Literacy	<p>--<i>Neighborhood Bridges Classroom Teacher Evaluation Surveys I and II</i></p> <p>--<i>Neighborhood Bridges Teaching Artist Evaluation Surveys I and II</i></p>	<p>All Bridges classroom teachers and teaching artists complete Survey I in December and Survey II in May.</p>

Assessment of Theatre Knowledge and Skills

To assess students' knowledge and skills in theatre, the researchers used two tools that they had developed in an earlier study in collaboration with Bridges staff, classroom teachers, and teaching artists. The tools, which align with the state and national theatre arts standards that are emphasized in Bridges, are as follows.

- *Neighborhood Bridges Responding to a Play Assessment*
- *Neighborhood Bridges Theatre Vocabulary Recognition Test*

Details of each tool are described below.

Responding to a Play Assessment

The *Neighborhood Bridges Responding to a Play Assessment* tool was designed to measure students' ability to use theatre arts concepts and vocabulary to respond to a theatre performance. The tool contains a worksheet with eight open-ended questions about aspects of a play and students are asked to prepare a brief written response to each. Trained readers score students' responses based on a rubric that describes four levels of achievement for each question. The tool is designed to work with any type of theatre performance students might attend, including the short skits that students routinely prepare and perform for their peers as part of Bridges classroom sessions.

In March, 2011, Bridges students attended a performance of *Barrio Girl* at CTC. After the performance, classroom teachers administered the assessment to their students based on instructions provided with the tool. The evaluator then selected a random sample of six worksheets from each of the fourteen classrooms for use in the evaluation. Each paper was reviewed by two trained raters using the scoring rubric. The raters' scores on each item were averaged to create a composite score for each item and an overall composite score.

Like the Bridges writing assessment tool, the *Neighborhood Bridges Responding to a Play Assessment* was originally designed to assess learning of the theatre standards for students in grade four through six. As part of the current study, the researchers worked with CTC staff and Bridges classroom teachers to develop a second version of the responding assessment tool that could be used with students in grades two and three. This version of the responding assessment tool includes eight open-ended questions about various aspects of a play and a corresponding rubric for use in scoring students' written responses to each question. The second rubric contains the same eight dimensions as the original rubric and defines four levels of achievement for each dimension.

Theatre Vocabulary Recognition Test

The *Neighborhood Bridges Theatre Vocabulary Recognition Test* was designed to measure students' understanding of 20 theatre terms that are used regularly in Bridges. The vocabulary terms appear on the survey in four sets of five terms. Within each set, students match each term to its definition, choosing from among the five definitions provided in each set. Students completed a pre-survey in the fall to measure their knowledge level before their participation in Bridges. The survey is repeated

in the spring so that researchers can measure the change in students' theatre vocabulary knowledge after students' participation in Bridges.

Classroom Teacher and Teaching Artist Evaluation Surveys

The purpose of the classroom teacher and teaching artist evaluation surveys is to collect information in two areas: 1) how classroom teachers and teaching artists implemented Bridges in their classrooms and 2) how classroom teachers and teaching artists think their students were affected by their participation in Bridges, specifically in terms of student learning in the areas of writing, retelling and dramatization, and critical literacy. The surveys were developed as part of an earlier study. There are two surveys for classroom teachers and two surveys for teaching artists. The survey items asked respondents to rate their level of agreement on a four point scale – where a rating of 1 equaled strongly disagree and a rating of 4 equaled strongly agree – with statements about the appropriateness of the curriculum and program activities, the roles of the classroom teacher and teaching artist in conducting the program, and student learning. The surveys were included in the curriculum materials distributed to classroom teachers and teaching artists in September. At two points during the year (December and May) they were asked to complete the appropriate survey and turn it in to the director of Bridges at a program meeting.

Student Evaluation Survey

The purpose of the student survey is to collect information on what students think they have learned during their involvement in Bridges. The survey asks students to think about how their skills in six areas may have changed since the beginning of the school year. For each learning area students are instructed to choose the answer that describes them best from a four-point scale that ranges from strongly disagree to strongly agree. The surveys were included in the curriculum materials distributed to classroom teachers and teaching artists in September and students completed the survey during a Bridges session in May. The survey was developed and used by CTC staff in earlier studies.

As part of the current study researchers worked with CTC staff and Bridges classroom teachers to develop an alternative survey for students in grades two and three. This survey measures students' skills in nine areas. Students are instructed to "Read each sentence and decide how much it sounds like you. Then, circle the face that matches your answer." The response choices are three drawings of a face (showing a smile, a neutral mouth, and a frown) and a word (Yes, Maybe, or No) corresponding to each face.

Data Analysis

Researchers entered the data from surveys of classroom teachers, teaching artists, and students into a spreadsheet and then, for survey question, calculated the frequency and percent for each response option. To determine if there were statistically significant differences between how classroom teachers and teaching artists responded to the survey questions, the researchers conducted independent-samples t-tests and Chi-square statistics ($p < .05$) for each question.

A research assistant scored the pre- and post-test vocabulary tests based on a key that shows the correct answer for each vocabulary term. Then, for each student, the assistant entered the number of items correct on the pre-test and post-tests into a database. Researchers calculated the average,

median and mode for the pre- and the post-test scores and used a matched-pairs t-test statistic ($p < .05$) to determine if there was a statistically significant difference in the number of items students got correct on the pre-test and the post-test. To meet the theatre standards, a student needed to score sixteen points or higher on the post-test. This benchmark was established by CTC staff and the researchers in an earlier study.

Researchers entered the data from the writing assessment and the responding to a play assessment into separate spreadsheets. Then, the researchers calculated an average score across the two reviewers for each dimension on the scoring rubric. Next, they calculated an overall score for each assessment tool by adding up the average score for each dimension. For the writing assessment data researchers used a matched-pairs t-test to determine if differences in students' scores from fall to spring were statistically significant ($p < .05$). To meet the benchmark for student achievement in writing in grades four through six, eighty percent of the students needed to receive an overall score of ten or higher, out of a total possible score of 20, on the spring assessment. For the responding to a play data researchers calculated the average, median and mode for each rubric dimension and the overall score. To meet the benchmark for the theatre standards related to the ability to respond to a performance in grades four through six, a student needed to have an overall score of sixteen or higher, out of a total possible score of 32. Bridges staff and the researchers established the benchmarks for each of the assessment tools (for students in grades four through six) as part of an earlier study. They will use data from the current study to establish benchmarks for students in grades two and three.

Results: Implementation of Neighborhood Bridges

This section describes survey results from classroom teachers and teaching artists in two areas: satisfaction with program logistics and events, and the effectiveness of Bridges' components for student learning. This is followed by information from classroom teachers on their use of Bridges strategies and themes in their instruction outside of Bridges sessions. This information was gathered through questionnaires completed by Bridges classroom teachers and teaching artists in December and May. The rate of completion on the survey was excellent. All of the classroom teachers and all of the teaching artists completed a survey in December and a survey in May. This results in a one-hundred percent rate of completion for both surveys.

Satisfaction with Bridges

Classroom teachers and teaching artists responded to a range of items about their satisfaction with Bridges. Both the December and the May surveys contained items in this area. Table 3 shows how satisfied classroom teachers and teaching artists were with the program logistics they had experienced from the beginning of the year to December. Over ninety-five percent of them chose agree or strongly agree in response to each of the six statements. Classroom teachers and teaching artists assigned the highest rating to the item about adapting Bridges to meet the needs of their students; seventy-seven percent marked strongly agree for this item and twenty-three percent marked agree. Another outstanding area of the program was the rapport teaching artists developed with students. Seventy-four percent of the classroom teachers and teaching artists chose strongly agree for this item and another twenty-six percent chose agree.

Table 3
Ratings of Program Logistics: December
(N=44)

<i>Based on your experience from the beginning of the year to date, indicate your level of agreement with the following statements.</i>	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
The Bridges Curriculum CD and binder are easy to use.	0%	4%	36%	59%
The Bridges Kick-off meeting and the planning meetings with my teaching artist have helped me to understand the logistics of the program.	0%	0%	27%	73%
I have a collaborative relationship with my teaching artist/classroom teacher.	0%	2%	20%	77%
The teaching artist has developed a good rapport with my students ⁱⁱⁱ .	0%	0%	26%	74%
My teaching artist/classroom teacher and I are adapting Bridges to meet the needs of my students.	0%	0%	23%	77%
I notice a stronger sense of community among the students in my class.	0%	2%	43%	54%

Table 4 shows how classroom teachers and teaching artists rated their satisfaction with Bridges logistics they had experienced from the beginning of the year to May. Their satisfaction with the program logistics was generally high (See Table 4.) For example, ninety-two percent marked strongly agree for the item, “I received information concerning the Crossing Bridges Festival in a timely manner” and eighty-six marked strongly agree on the item, “The Crossing Bridges Festival ran smoothly.” There were some areas of the program that classroom teachers and teaching artists were less satisfied with relative to the high ratings they assigned in other areas. These suggest aspects of Bridges where staff may be able to make adjustments to strengthen the program’s implementation. For example, on the survey item, “The January meeting and the planning meetings with my teaching artists were helpful in deepening my understanding of how to implement the Bridges Program,” notably fewer of them marked a response of strongly agree (60%) and 2% chose disagree. Although a strong majority (80%) chose strongly agree when asked about the collaborative relationship with their classroom teacher or teaching artist, six percent chose strongly disagree.

Table 4
Ratings of Program Logistics: May
(N=50)

<i>Based on your experience from the beginning of the year to date, indicate your level of agreement with the following statements.</i>	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
I have a collaborative relationship with my teaching artist/classroom teacher.	6%	0%	14%	80%
The January meeting and the planning meetings with my teaching artist/classroom teacher were helpful in deepening my understanding of how to implement the Bridges Program.	0%	2%	37%	60%
I received information concerning Bridges Day in a timely manner.	0%	0%	20%	80%
The events for Bridges Day ran smoothly.	0%	0%	18%	82%
I received information concerning the Crossing Bridges Festival in a timely manner.	0%	2%	6%	92%
The Crossing Bridges Festival ran smoothly.	0%	0%	14%	86%

The survey results found in Table 5 indicated that, overall, classroom teachers and teaching artists were satisfied with Bridges events that occurred during the year. For example, ninety-six percent of the classroom teachers and teaching artists marked strongly agree for the statements, “Attending the Crossing Bridges Festival was a valuable experience for my students” and “Performing in the Crossing Bridges Festival was a valuable experience for my students.”

Table 5
Satisfaction with Bridges Events
(N=50)

<i>Based on your experience in Bridges from the beginning of the year to date, indicate your level of agreement with the following statements.</i>	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Attending the Bridges Day performance was a valuable experience for my students.	2%	0%	14%	84%
Attending the Crossing Bridges Festival was a valuable experience for my students.	0%	0%	4%	96%
Performing in the Crossing Bridges Festival was a valuable experience for my students.	0%	0%	4%	96%

Effectiveness of Bridges Components for Student Learning

Another function of the surveys was to solicit classroom teachers' and teaching artists' perspectives on how effective the various components of Bridges were for student learning. Survey respondents used a four-point scale, which ranged from not at all effective to very effective to indicate their level of agreement with six items. Overall, the classroom teachers and teaching artists indicated that the Bridges activities were effective for improving students' skills (See Table 6). They were most likely to endorse the effectiveness of the theatre games and warm-ups; seventy-percent said these were very effective and twenty-seven percent said they were effective. Another highly rated activity was students retelling their stories to the class. Sixty-eight percent of the classroom teachers and teaching artists marked very effective for this activity and another twenty-seven percent marked effective. In contrast, students performing short skits for their peers had the highest proportion classroom teachers and teaching artists who chose the rating of somewhat effective. To strengthen the program, Bridges staff may want to examine how this part of Bridges sessions could be improved.

Table 6
Effectiveness of Bridges Components
(N=44)

<i>Based on your experience in Bridges, how effective is each of the following activities for improving students' skills?</i>	Percent			
	Not at All Effective	Somewhat Effective	Effective	Very Effective
The Fantastic Binominal or other NB writing games.	2%	7%	32%	59%
Students retelling stories to the class.	2%	2%	27%	68%
The teaching artist and/or classroom teacher lead students in a discussion of the stories that ask questions of the text.	0%	7%	41%	52%
The theatre games and warm-ups.	0%	2%	27%	70%
Students perform short skits for their peers.	0%	12%	19%	70%

Classroom Teachers' Use of Bridges Strategies and Themes

One of the aims of Bridges is to increase classroom teachers' use of Bridges strategies and themes in their classroom instruction outside of Bridges sessions as a support to learning in other core content areas. The classroom teacher survey in December listed three strategies or themes that are part of Bridges and asked teachers whether they had used each strategy or theme outside of their classroom's weekly Bridges session since the beginning of the year. As shown in Table 7, ninety-six percent of the classroom teachers indicated that they had used the Bridges discussion, questioning,

and comprehension tools outside of Bridges sessions. Ninety-two percent reported that they had used the Bridges focus and community building tools outside of Bridges sessions. This indicates that classroom teachers found Bridges strategies useful for instruction beyond the Bridges sessions themselves.

Table 7
Classroom Teachers' Use of Bridges Strategies and Themes
(N=25)

<i>From the beginning of the year to now, please indicate if you have used these components of Bridges outside of the sessions.</i>	Percent	
	Yes	No
I have used oral communication tools (projection, diction) introduced during Bridges outside of the Bridges sessions.	48%	52%
I have used focus and community building tools introduced during Bridges outside of the Bridges sessions.	92%	8%
I have used discussion, questioning and comprehension tools introduced during Bridges outside of the Bridges sessions.	96%	4%

Results: Student Learning In Neighborhood Bridges

This section summarizes data on student learning^{iv} in several areas

- Retelling and Dramatization
- Writing
- Theater Knowledge and Skills
- Critical Literacy

There were multiple sources for these data: classroom teacher and teaching artist surveys; student surveys, the *Neighborhood Bridges Writing Assessment*; the *Neighborhood Bridges Responding to a Play Assessment*; and the *Neighborhood Bridges Theatre Vocabulary Recognition Test*.

Results from the Classroom Teacher and Teaching Artist Surveys

In December, classroom teachers and teaching artists rated their agreement with statements about specific changes they may have observed in at least a majority of their students from the beginning of the year to the present. A majority of them chose either agree or strongly agree in response to questions about their students' improvement in all three skill areas: writing, retelling and dramatization, and critical literacy (See Table 8.) The classroom teachers and teaching artists felt most strongly about gains in their students' confidence when telling stories in front of others. Sixty-seven percent marked strongly agree for this skill and thirty-percent marked agree. Almost half of them (48%) chose strongly agree for students beginning to project their voice when speaking in front of other and beginning to animate their body in their scenes. The classroom teachers and teaching artists also saw improvements in at least of majority of their students' skills in writing and critical literacy. For example, forty-four percent chose strongly agree when asked about improvements in students' attitudes about writing and forty-two percent marked strongly agree when asked about improvement in students beginning to question the stories used in Bridges.

Table 8
Perceptions of Student Learning: December
(N=44)

<i>From the beginning of the year to date what changes have you observed in at least a majority of your students?</i>	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
WRITING				
Students' attitudes about writing have improved.	0%	2%	53%	44%
Students are writing more (word count has increased).	0%	5%	52%	43%
RETELLING & DRAMATIZATION				
Students are beginning to project their voice when speaking in front of others.	0%	0%	52%	48%
Students are beginning to use clear diction when speaking in front of others.	0%	2%	72%	26%
Students are beginning to gain confidence when telling stories in front of others.	0%	2%	30%	67%
Students are beginning to learn the mechanics of animating the body in their scenes.	0%	4%	48%	48%
CRITICAL LITERACY				
Students are beginning to question the stories used in Bridges.	0%	5%	53%	42%

The May survey for classroom teachers and teaching artists included questions about student learning in the same three areas as the December survey (writing; retelling and dramatization; and critical literacy), but the list of specific skills in each area was more extensive on the May survey. Overall, classroom teachers' and teaching artists' responses to questions about student learning were positive. In the area of writing ninety-three percent marked strongly agree or agree for statements about improvement in students': enjoyment of writing; writing with descriptive details; and writing with an awareness of a clear, central idea (See Table 9). One area of writing in which classroom teachers and teaching artists noted relatively less improvement was students' ability to write with rich, complete sentences. Although eighty-nine percent chose agree or strongly agree, eleven percent chose disagree for this item.

Table 9
Perceptions of Student Learning in Writing: May
(N=44)

<i>From the beginning of the year to date, what changes have you observed in at least a majority of your students?</i>	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Students' enjoyment of writing has improved.	0%	7%	48%	45%
Students write with descriptive details.	0%	7%	66%	27%
Students write with an awareness of a clear, central idea.	0%	7%	59%	34%
Students write with rich, complete sentences.	0%	11%	73%	16%

In the area of retelling and dramatization all of the classroom teachers and teaching artists marked agree or strongly agree when asked about improvement in students' confidence when telling stories in front of the class and improvement in vocabulary among their students who were learning English as a second language (See Table 10). Ninety-eight percent of the classroom teachers and teaching artists marked agree or strongly agree for the following items:

- Students project their voice when speaking in front of others.
- Students use clear diction when speaking in front of others.
- Students' oral communication skills have improved.
- Students enjoy acting in front of the class.

Relative to the other skills in this area, classroom teachers and teaching artists were most likely to mark disagree for students' skill level in animating their bodies in their scenes. Seven percent disagreed with this item.

Table 10
Perceptions of Student Learning in Retelling and Dramatization: May
(N=44)

	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
<i>From the beginning of the year to date, what changes have you observed in at least a majority of your students?</i>				
Students project their voice when speaking in front of others.	0%	2%	45%	52%
Students use clear diction when speaking in front of others.	0%	2%	70%	27%
Students' oral communication skills have improved.	0%	2%	34%	64%
Students have gained confidence when telling stories in front of the class.	0%	0%	23%	77%
Students animate their bodies in their scenes.	0%	7%	45%	48%
Students enjoy acting in front of the class.	0%	2%	26%	72%
ELL students have increased their vocabulary.	0%	0%	44%	56%

The classroom teachers' and teaching artists' responses also indicated that they saw improvement in students' skills in the area of critical literacy. The highest proportion (68%) marked strongly agree for the item, "Students have become more skilled in looking for meaning in stories" (See Table 11). Over half marked strongly agree for the items concerning students' ability to look for multiple perspectives in stories (57%) and students' skills in using acting and/or writing to transform the stories used in Bridges in ways that challenge underlying assumptions (52%).

Table 11
Perceptions of Student Learning in Critical Literacy: May
(N=44)

	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
<i>From the beginning of the year to date, what changes have you observed in at least a majority of your students?</i>				
Students have become more skilled in looking for meanings in stories.	0%	4%	27%	68%
Students have become more skilled looking for multiple perspectives in the stories.	0%	2%	41%	57%
Students question the world in which they live through analysis of stories.	0%	9%	52%	39%
Students have become more skilled at discussing the assumptions that underlie the stories used in Bridges.	0%	7%	52%	41%
Students have become more skilled at questioning these assumptions.	0%	7%	45%	48%
Students have become more skilled at using acting and/or writing to transform the stories used in Bridges in ways that challenge underlying assumptions.	0%	7%	41%	52%

Results from the Student Survey

There are two versions of the Bridges Student Survey: one version for students in grades two and three and a second version for students in grades four through six. Ninety-eight percent of the Bridges students (368 of 375) in grades four through six completed the survey during their final Bridges session in May. The survey asked students to think about how their skills in six areas may have changed since the beginning of the school year. As shown in Table 12, at least eighty percent of the students chose agree or strongly agree when asked if their skills had improved in four of six areas. Students were most likely to indicate that they had gotten better at writing stories; eighty-nine percent of the students chose agree or strongly agree for this item. Many students also chose agree or strongly agree when asked about describing a character in their writing (85%), describing a place in their writing (81%) or putting descriptive details in their writing (81%). In contrast, 28% of the students indicated that their skills had not improved in two areas: writing stories that contain surprises for the listener or reader and retelling my stories in front of the class.

Students' responses to an open-ended question about what they learned in Bridges that helped them write stories offer additional information on how Bridges affected students' writing skills

- I learned that when you write something even the tiniest detail can be very important.
(grade five student)

- What helped me write stories in NB was I got more of a creative mind, where I can describe things or people more (grade six student).
- By writing my FBs, I learned not to be so critical of my own work before I'm even finished, just to write like a leady faucet. (grade six student)
- Reading my stories out loud helped me fix mistakes (grade four student).

Table 12
Students' Reflections on their Learning: Grades Four through Six
(N=368)

<i>From the beginning of the year until now I've gotten better at _____</i>	Percent of Students			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Writing stories.	2%	9%	54%	35%
Putting descriptive details in my writing.	3%	17%	59%	22%
Describing a place in my writing.	3%	16%	54%	27%
Describing a character in my writing.	2%	13%	49%	35%
Writing stories that contain surprises for the listener or reader.	5%	23%	43%	29%
Retelling my stories in front of the class.	8%	20%	42%	30%

Seventy-seven percent of the Bridges students (135 of 175) in grades two and three completed a survey. The survey measures students' skills in nine areas. The students' responses indicate that they enjoy participating in the Bridges program (See Table 13). Ninety-three percent said they like to act out plays in Bridges and eighty-seven percent said they like to write stories in Bridges. Over two-thirds of the students said they were a better writer (72%) and liked to tell their stories to their class (69%). The skills that a relatively smaller proportion of students endorsed were: "I add details to my stories when I write" and "My words can create pictures in people's minds." Sixty-two percent of the student marked yes for each of these items.

Table 13
Students' Reflections on their Learning: Grades Two and Three
(N=135)

	Percent of Students		
	No	Maybe	Yes
I am a better writer.	3%	25%	72%
I add details to my stories when I write.	7%	31%	62%
I describe the setting (where my stories take place) when I write stories.	10%	26%	65%
I describe characters when I write stories.	8%	26%	67%
My words can create pictures in people's minds.	8%	30%	62%
I like to tell my stories to my class.	14%	18%	69%
I like to write stories in Neighborhood Bridges.	4%	9%	87%
I like to act out plays in Neighborhood Bridges.	4%	3%	93%
I work well with my team to make plays.	4%	14%	81%

Responding to a Play Assessment Results

The *Neighborhood Bridges Responding to a Play Assessment* was designed to measure students' ability to use theatre arts concepts and vocabulary to respond to a theatre performance. In March, Bridges students attended a performance of *Barrio Girl* at CTC. A random sample of six completed assessment worksheets was selected from fourteen Bridges classrooms for use in the evaluation.

Results for Students in Grades Four through Six

Eleven of the fourteen Bridges classrooms that included students in grades four, five, and six used the original responding assessment tool. The sample size for this group was sixty-four students. Table 14 and Figure 1 show the average score for each item on the responding to a play assessment worksheet. The average scores ranged from 2.13 to 2.48. The highest average score was on the item that asked students to describe an event from the play in detail. The lowest average score (2.13) occurred on the item that asked students to explain why they think a technical choice in the play was made. Students' scores were similar (2.16) when asked to explain why an actor made a specified choice about how to use a tool from the actor's tool kit to communicate to the audience. The students' scores were higher when they were asked to choose one tool from the actor's tool kit and describe how an actor used it to communicate the event to the audience (2.34) and pick one technical element and describe it (2.35). This indicates that students were more able to identify technical elements and actors' choices in a performance, and describe how the elements and tools were used than they were able to explain why they think those choices were made.

As shown in Table 15, the average overall score on the responding assessment was 18.70 out of a possible 32 points. The students' overall scores on the responding assessment ranged from 12.0 to 31.0. An overall score was available for only fifty-eight of the sixty-four students who participated in the assessment because six students did not provide a response for all eight items on the assessment. In order to achieve the standard, a student needed to have an overall score of 16 or higher. Seventy-nine percent of the students (46 of 58) met the theatre standards measured by this assessment tool.

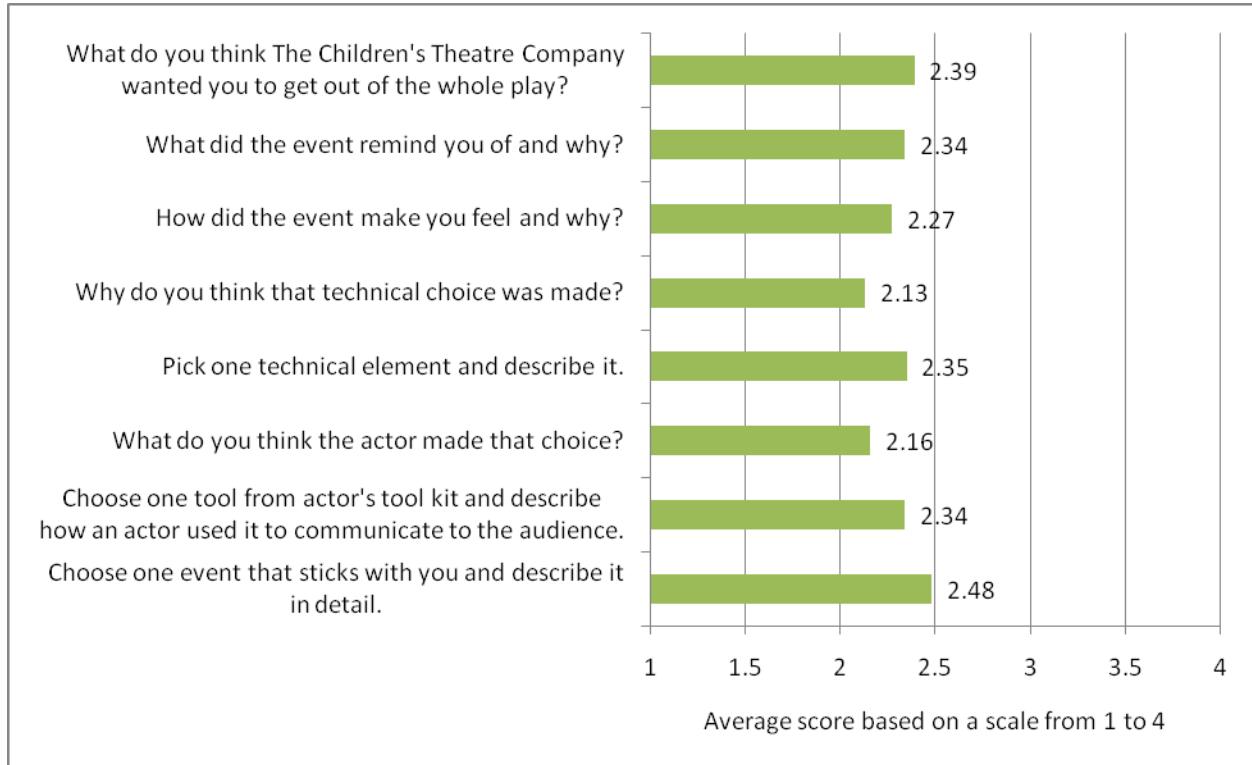
Table 14
 Responding to a Play Assessment Grades Four through Six:
 Average Scores for Individual Items

Item	Average	N
From the whole play choose one event that sticks with you and describe that event in detail.	2.48	64
Choose one tool from the actor's tool kit (voice, face, body) and describe how an actor used it to communicate the event to the audience.	2.34	63
Why do you think the actor made that choice?	2.16	62
Pick one technical element (costumes, scenery, props, sound design, lights) and describe it.	2.35	62
Why do you think that technical choice was made?	2.13	60
How did the event make you feel and why?	2.27	62
What did the event remind you of and why?	2.34	60
What do you think The Children's Theatre Company wanted you to get out of the whole play?	2.39	60

Table 15
 Responding to a Play Assessment Grades Four through Six:
 Overall Score
 (N=58)

	Overall Score
Average	18.70
Median	18.0
Range	12.0-31.0

Figure 1
 Responding to a Play Assessment Grades Four through Six:
 Average Scores for Individual Items



Results for Students in Grades Two and Three

Three of the fourteen Bridges classrooms used the new version of the *Neighborhood Bridges Responding to a Play Assessment* that was designed for use with students in grades two and three. The researcher randomly selected papers from six students in each classroom for use in the study. Table 16 and Figure 2 show the average score for each question on the assessment worksheet. The highest average score was on the item that asked students to list the characters in a scene (2.58 on a scale from one to four). Students scored slightly lower, on average, when asked to describe what happened in a scene (2.31) and when asked to list questions they had about the play (2.28). The lowest average scores occurred on the item that asked students to choose a technical element from the play and describe it (1.94) and the item that asked students to describe the setting (1.97).

As shown in Table 17, the average overall score on the responding assessment was 17.73 out of a possible 32 points. The students' overall scores on the responding assessment ranged from 15.0 to 22.0. An overall score was available for only thirteen of the eighteen students who participated in the assessment because five students did not provide a response for all eight items on the assessment. In order to achieve the standard, a student needed to have an overall score of 16 or higher. Eighty-five percent of the students (11 of 13) met the theatre standards measured by this assessment tool.

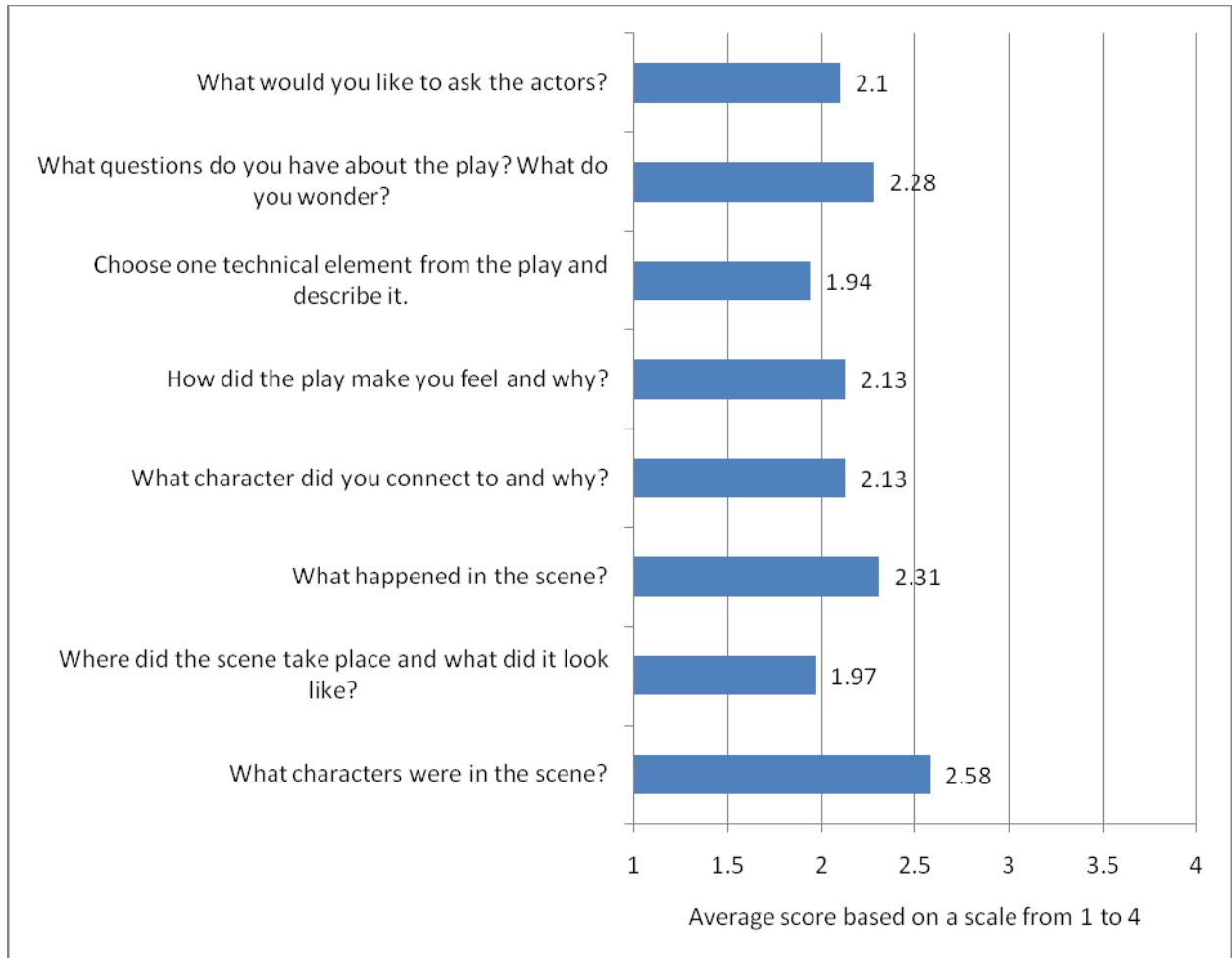
Table 16
 Responding to a Play Assessment Grades Two and Three:
 Average Scores for Individual Items

Item	Average	N
What characters were in the scene?	2.58	18
Where did the scene take place (the setting) and what did it look like?	1.97	16
What happened in the scene?	2.31	16
What character did you connect to and why?	2.13	15
How did the play make you feel and why?	2.13	16
Choose one technical element from the play and describe it.	1.94	16
What questions do you have about the play? What do you wonder?	2.28	16
What would you like to ask the actors?	2.10	15

Table 17
 Responding to a Play Assessment Grades Two and Three:
 Overall Score
 (N=13)

	Overall Score
Average	17.73
Median	18.00
Range	15.0-22.0

Figure 2
Responding to a Play Assessment Grades Two and Three:
Average Scores for Individual Items



Theatre Vocabulary Recognition Test Results

The *Neighborhood Bridges Theatre Vocabulary Recognition Test* was designed to measure students' understanding of twenty theatre terms that are used regularly in Bridges. Students complete a pre-test in the fall to measure their knowledge level before the start of Bridges. The test is repeated in the spring and each student's results are compared from pre- to post-test to measure growth in their theatre vocabulary.

Seventy-nine percent of the students (177 of 225) who participated in Bridges at a school located in the east metro area^v completed both the fall and spring vocabulary test. This completion rate suggests some caution in generalizing the results to all of the students in East Metro schools who participated in Bridges during the year. Students who did not complete both surveys may have performed differently than those who were present for both the fall and spring surveys. In most cases, the students who did not take both surveys were students who changed schools during the year and thus were not able to participate in the full Bridges program.

The mean number of terms correct in the fall was 11.81 out of 20 (see Table 18). The scores are high for a pre-survey. Students took the pre-test before they had received much Bridges instruction so one would expect their scores to be low because students were not expected to know the terms at the start of the program. The mean number of terms correct when students retook the test in the spring was 14.99, an increase from baseline that was statistically significant ($p < .0001$ on a matched-pairs t-test). In order to achieve the theatre standards, a student needed to have correct answers for 16 or more items on the spring post-test. Fifty-six percent of the students (100 of 177) met the theatre standards measured by this tool.

Table 18
Theatre Vocabulary Recognition Test Results
(N=177)

	Fall Score	Spring Score
Average*	11.81	14.89
Median	12.0	16.0
Range	0-20	0-20

*The difference between the average score in the fall and the average score in the spring was statistically significant on a matched-pairs t-test ($p < .0001$).

Table 19 shows the results of the theatre vocabulary test by grade level. The average score in the fall varies by grade level; it ranges from an average of 6.08 in grade three to an average of 15.32 in grade six. The change in students' scores from fall to spring was statistically significant for students in each grade level group. Table 20 shows the percentage of students at each grade level who met the benchmark for the vocabulary recognition test. Over fifty percent of the students at grade five (72.50%) and grade six (80.0%) achieved the benchmark score of 16 points or higher on the spring vocabulary test.

Table 19
Theatre Vocabulary Recognition Test Results by Grade Level
(N=177)

	Average Score in Fall	Average Score in Spring	Number of Students
Grade Three*	6.08	10.46	26
Grade Four*	10.03	13.82	61
Grade Five*	13.85	16.35	40
Grade Six*	15.32	17.70	50

*The difference between the average score in the fall and the average score in the spring was statistically significant on a matched-pairs t-test ($p < .0001$).

Table 20
Percentage of Students Who Meet the Benchmark for the
Theatre Vocabulary Recognition Test by Grade Level
(N=177)

	Number of Students	Number of Students with Spring Score ≥ 16	Percent of Students who Meet Benchmark
Grade Three	26	7	26.92%
Grade Four	61	24	39.3%
Grade Five	40	29	72.50%
Grade Six	50	40	80.0%

Writing Assessment Results

Across the fifteen classrooms, fall writing samples were available from eighty-four students. Some of the classrooms were not able to provide writing samples from six different students, as requested by the researchers, because the number of students whose parents provided written consent for their child to participate in the study was insufficient. Seventy of the eighty-four students (83%) also had writing samples available in the spring. Twenty-five of the seventy students were in grades two or three and forty-five students were in grades four, five or six, including eleven students at Evergreen Park who participated in a shortened Bridges program. It is not unusual for the number of students enrolled in a study to shrink from fall to spring, especially in urban schools where a sizable proportion of the students attend more than one school during a single school year. Due to this attrition in the sample size from fall to spring, some caution is recommended in generalizing the results of the writing assessment from the students included in this analysis to all of the students who participated in Bridges during the year. Students who did not complete both the fall and spring samples may have performed differently than those who were present for both samples.

Results of the 2010-2011 writing assessment are presented in two parts: the assessment of student writing in Bridges classrooms at grades four, five and six and the assessment of student writing in

Bridges classrooms at grades two and three. Results for students at Evergreen Park World Studies Elementary School are reported separately in the Appendix because these students participated in a shortened Bridges program.

Results for Grades Four through Six

Both fall and spring writing samples were available for thirty-four students in grades four, five or six. There were statistically significant increases on each of the writing assessment rubric dimensions with the exception of the ideas dimension (see Table 21 and Figure 3). The largest increases were on organization and creativity. The mean score for organization in the fall was 2.05 out of a possible 4 points; in the spring the mean was 2.50. For creativity, the average score increased from 2.05 out of a possible 4 points in the fall to 2.47 in the spring.

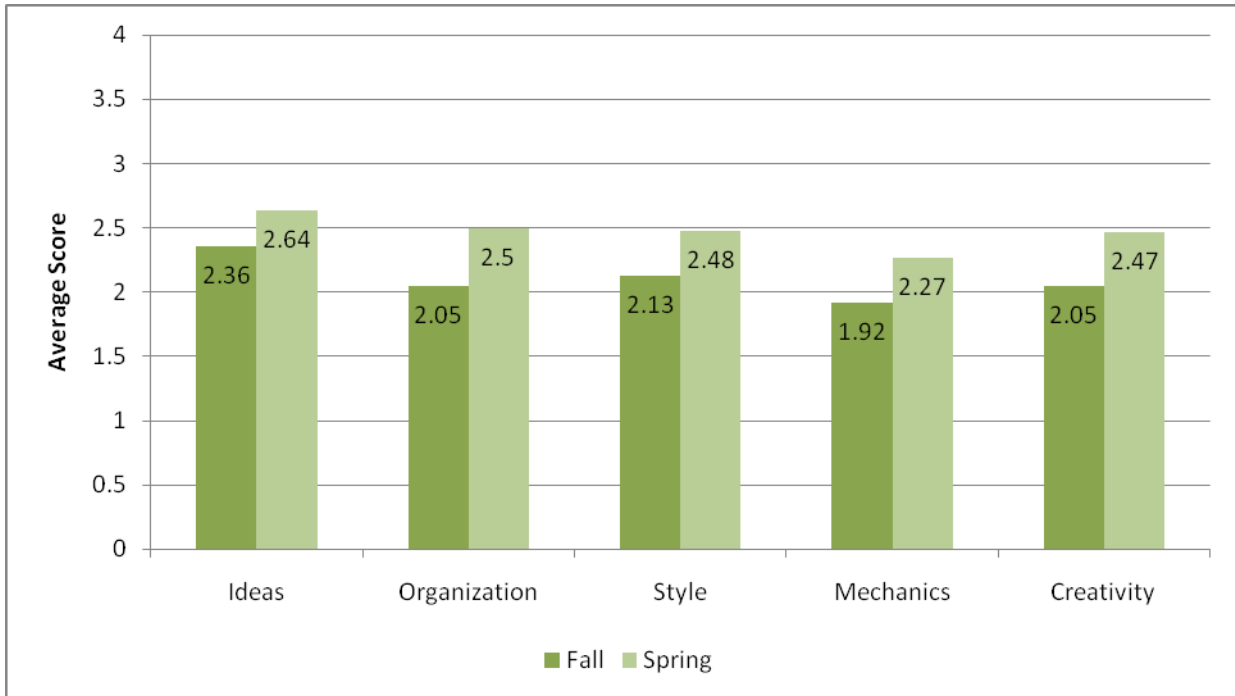
The mean overall score on the writing assessment in the fall was 10.71 out of a possible of 20 points. The mean overall writing score when students’ writing was re-sampled in the spring was 12.42, an increase from baseline that was statistically significant. In consultation with the evaluators, program staff determined that an indicator of success would be that 80% of the students received a total score of 10 or higher out of 20 on the spring assessment. Seventy-four percent of the students (23 of 31 students) met this benchmark.

Table 21
 Writing Assessment Grades Four through Six:
 Rubric Dimensions
 (N=31)^{vi}

	Fall Mean	Spring Mean
Ideas	2.36	2.64
Organization*	2.05	2.50
Style*	2.13	2.48
Mechanics*	1.92	2.27
Creativity*	2.05	2.47
Overall Score*	10.71	12.42

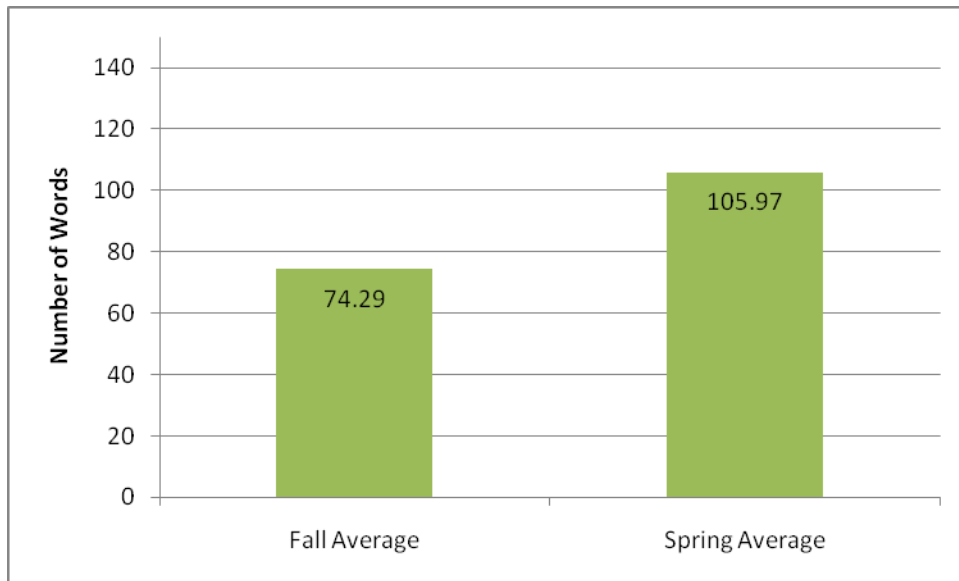
*The change from fall to spring was statistically significant at $p < .05$ on a matched-pairs t-test.

Figure 3
Writing Assessment Grades Four through Six:
Average Scores by Rubric Dimension



Another indicator of growth in students' writing skills is the number of words included in a writing sample. The average total word count in the spring was 105.97 words (see Figure 4), a statistically significant increase from the fall baseline mean of 74.29 words. This suggests that students were writing more as they continued to have practice with the FB during the Bridges sessions over the course of the year.

Figure 4
Writing Assessment Grades Four through Six:
Average Word Count



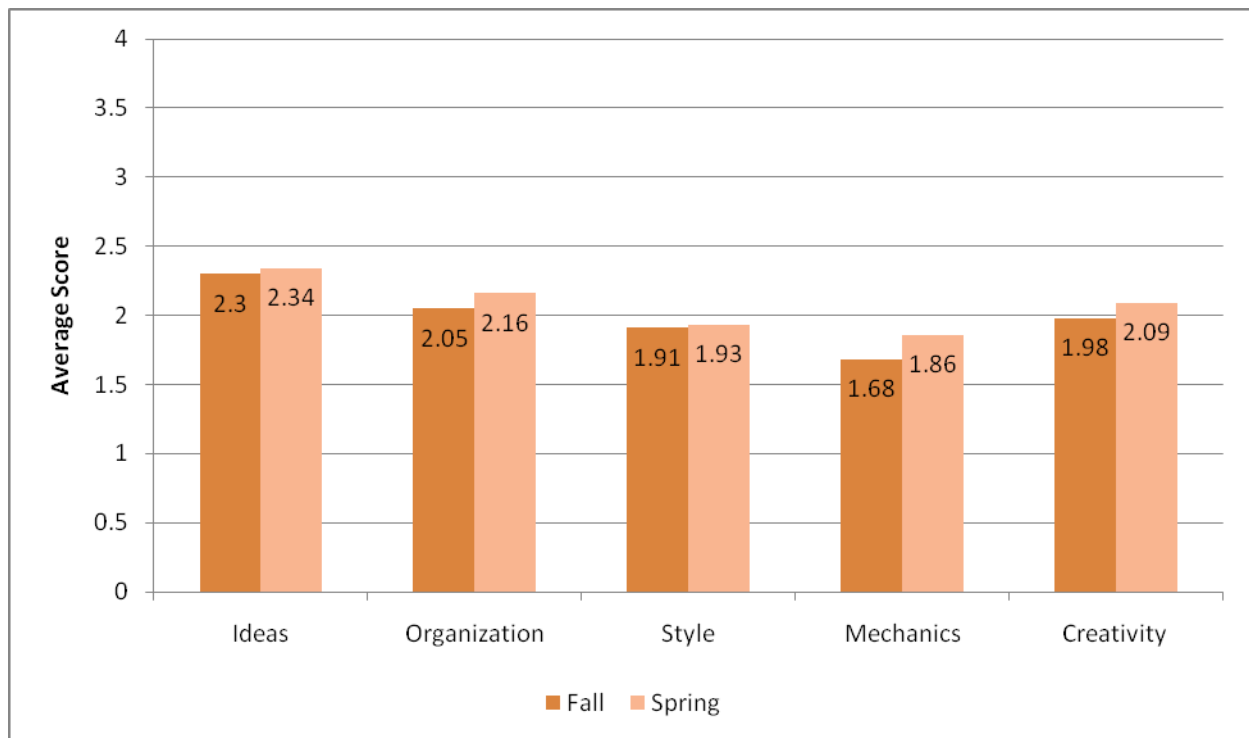
Results for Grades Two and Three

Writing samples from both the fall and the spring were available for twenty-five students in grades two and three. The average score on each dimensions of the writing assessment rubric increased from fall to spring, but the size of the increases was small (see Table 22 and Figure 5). The largest increase occurred for the mechanics, where the average score in the fall and spring, respectively, was 1.68 and 1.86. None of these differences were statistically significant. The mean overall score on the writing assessment in the fall was 9.91 out of a possible of 20 points. The mean total writing score when students' writing was re-sampled in the spring was 10.39, a slight increase from the fall.

Table 22
 Writing Assessment Grades Two and Three:
 Rubric Dimensions
 (N=22)^{vii}

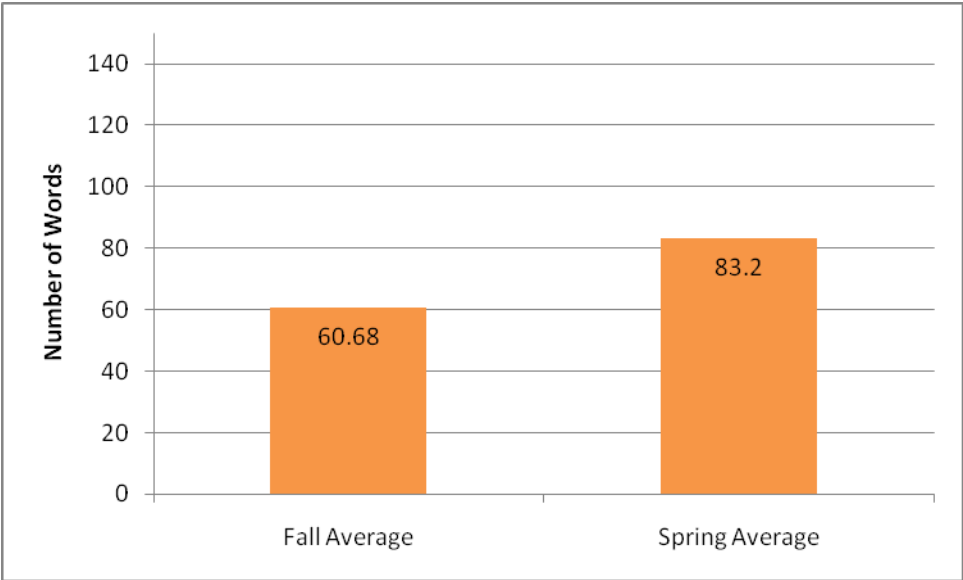
	Fall Mean	Spring Mean
Ideas	2.30	2.34
Organization	2.05	2.16
Style	1.91	1.93
Mechanics	1.68	1.86
Creativity	1.98	2.09
Overall Score	9.91	10.39

Figure 5
 Writing Assessment Grades Two and Three:
 Average Scores by Rubric Dimension



The mean total word count in the spring was 83.20 words (see Figure 6), an increase from the fall baseline mean of 60.68 words that was statistically significant. This suggests that students were writing more as they continued to have practice with the FB during the Bridges sessions over the course of the year.

Figure 6
Writing Assesment in Grades Two and Three:
Average Word Count



Summary and Discussion

The purpose of the evaluation was to measure the quality of Bridges implementation and assess student learning in the areas of writing; knowledge and skills in theatre; retelling and dramatization; and critical literacy. This section of the report highlights the results in each area of the study and discusses the study's implications for further program development and evaluation.

Implementation of Bridges

Data from surveys of classroom teachers and teaching artists indicate that Bridges was implemented very well in the twenty-five classrooms. Classroom teachers and teaching artists were satisfied with Bridges events, such as the Crossing Bridges Festival, and the logistics of carrying out the program. For example, all of the classroom teachers and teaching artists marked agree or strongly agree in response to the statement, "The Crossing Bridges Festival ran smoothly" and the statement, "Performing in the Crossing Bridges Festival was a valuable experience for my students." The classroom teachers and teaching artists also indicated that the Bridges components were effective in improving students' skills. For example, ninety-seven percent of the classroom teachers and teaching artists marked effective or very effective when asked how effective the theatre games and warm-ups were for building students' skills. Ninety-five percent marked effective or very effective when asked how effective it was for students to retell their stories to the class.

Bridges classroom teachers reported that some of the Bridges strategies are useful for instruction beyond the Bridges sessions themselves. Ninety-six percent of the classroom teachers said they have used the discussion, questioning and comprehension tools introduced in Bridges outside of the Bridges sessions. Ninety-two percent said they have used the Bridges focus and community building tools outside of Bridges sessions.

Although the survey data indicate that Bridges was implemented very well, to further strengthen the CTC staff may want to examine program aspects that classroom teachers and teaching artists rated low relative to their ratings for other aspects of the program. For example, six percent of the classroom teachers and teaching artists marked strongly disagree for the item, "I have a collaborative relationship with my teaching artist/classroom teacher" on the May survey. Twelve percent of the classroom teachers and teaching artists indicated that having students perform short skits for their peers was only somewhat effective for improving students' skills. And nine percent of the classroom teachers and teaching artists said the Fantastic Binominal or other Bridges writing games were not at all effective (2%) or somewhat effective (7%) for developing students' skills. CTC staff and the researchers could look more closely at the survey data to determine if the effectiveness of these Bridges components varied by the grade level of students or perhaps the number of years that a classroom teacher or teaching artist has been involved in Bridges. The data may indicate that targeted professional development or coaching for classroom teachers and teaching artists related to these areas of the program would be useful.

Student Learning in Writing

Seventy-four percent of the students met the benchmark score of ten points or higher (out of a total possible twenty points) on the spring *Neighborhood Bridges Writing Assessment* for students in grades four through six. In addition, there was a statistically significant increase from the baseline

assessment in the fall to the spring assessment on the overall score and the dimensions of organization, style, mechanics and creativity. The average overall score in the fall was 10.71 points and the average overall score in the spring was 12.42 points. There was also a statistically significant increase from fall to spring in the number of words students wrote on the writing assessment. The average total word count in the fall was 74.29 and the average total count in the spring was 105.97 words.

The average score on each of the rubric dimensions and the average overall score on the writing assessment increased from fall to spring for students in grades two and three. However, the size of the increases was smaller than the size of the increases for students in grades four through six. The average overall score in the fall was 9.91 points (out of a total possible 20 points) and the average overall score in the spring was 10.39 points for students in grades two and three. The largest increase from fall to spring among the five dimensions on the scoring rubric occurred for the dimension of mechanics. The average in the fall was 1.68 points (out of a total possible 4 points) and the average in the spring was 1.86 points.

Data from the classroom teacher and teaching artist surveys indicate that students' writing skills improved during their participation in Bridges. For example, on the May survey ninety-three percent of the classroom teachers and teaching artists marked agree or strongly agree for the statement, "Students write with descriptive details." Students also reported that their writing skills had improved since the fall. Eighty-nine percent of the students in grades four through six chose a response of agree or strongly agree for the survey item, "From the beginning of the year until now I've gotten better at writing stories." In addition, seventy-two percent of the students in grades two and three marked yes when asked on the student survey if they were a better writer.

The writing assessment scores for students in grades two and three were notably lower than the scores for students in grades four through six and the younger students' scores showed less improvement from fall to spring. There are several possible explanations for these differences. First, it may be unrealistic to expect younger students to improve their writing scores to the same degree as older students during the Bridges program. During Bridges sessions for younger students the teaching artist may have less time available to spend on writing exercises because more time is needed to help students understand the stories and develop short scenes based on the stories. Second, because this study was the first time that second grade students were included in the writing assessment and CTC staff and the researchers developed a new scoring rubric for this purpose, it's possible that the content of the rubric could be better aligned with the specific writing skills that teaching artists are able to include in Bridges sessions with younger students. The rubric may also need to be more aligned with the writing skills that are emphasized in the second and third grade writing curriculum in each school.

Students' Knowledge and Skills in Theatre

The evaluation included two measures of students' knowledge and skills in theatre: the *Neighborhood Bridges Responding to a Play Assessment* and the *Neighborhood Bridges Theatre Vocabulary Recognition Test*. The responding assessment includes a set of eight open-ended questions that students answer in writing after seeing a professional theatre performance at CTC. There are two versions of the tool, one for students in grades four through six and one for students in grades two and three. Over three-fourths (79%) of the students met the benchmark score of sixteen points or higher (out of a total possible thirty-two points) on the spring *Neighborhood Bridges Responding to a Play Assessment* for

students in grades four through six. The average overall score was 18.70. The average overall score on the new version of the responding assessment, which was developed for students in grades two and three, was 17.73. CTC staff and the researchers will use the results of this year's assessment in grades two and three to set a benchmark score that can be employed in future studies.

Results of the vocabulary test, which students complete in the fall and again in the spring, demonstrate that students' knowledge of theatre vocabulary increased during their participation in Bridges. The average score in the fall was 11.81 points out of a possible 20 points; the average score in the spring was 14.89. The difference from fall to spring was statistically significant. Fifty-six percent of the students met the benchmark score of 16 points or higher for this assessment tool.

A comparison of vocabulary test scores for students at different grade levels revealed that the average score for students in grade three and the average score for students in grade four were both below the benchmark score of 16 points. On the spring vocabulary test the third grade students scored 10.46, on average, and the fourth grade students scored an average of 13.82 points. The students' scores on the fall vocabulary test were also notably lower than the scores for older students. CTC staff and the researchers should examine this assessment tool to determine if adjustments are needed to more effectively measure the growth in the younger students' theatre vocabulary knowledge during Bridges. Changes may also be needed in how theatre vocabulary is taught in the lower grades and/or how much emphasis the teaching artists are able to spend on vocabulary during a Bridges session.

Classroom teachers and teaching artists also noticed increases in students' theatre skills. At least ninety percent of the classroom teachers and teaching artists marked agree or strongly agree when asked about improvements in the seven skills which make up the learning area of retelling and dramatization on the May survey. Examples of these skills are students' ability to use clear diction when speaking in front of others and students' ability to animate their bodies in the scenes they perform in Bridges.

Students' Skills in Critical Literacy

The May survey asked classroom teachers and teaching artists whether they had seen changes in their students' critical literacy skills during their participation in Bridges and their survey responses indicate that students developed skills in this area. Among the six specific skills listed as part of critical literacy on the survey the highest proportion of classroom teachers and teaching artists (68%) marked strongly agree for the item, "Students have become more skilled in looking for meaning in stories." Over half marked strongly agree for the items concerning students' ability to look for multiple perspectives in stories (57%) and students' skills in using acting and/or writing to transform the stories used in Bridges in ways that challenge underlying assumptions (52%).

As a whole, the results of the evaluation study indicate that Bridges was implemented successfully in twenty-five classrooms of students in grades two through six during the 2010-2011 school year. Data from surveys of classroom teachers, teaching artists and students who participated in Bridges, along with data from assessment tools administered by the researchers provide evidence of what students learned during their participation in Bridges. Students increased their skills in writing, their knowledge and skills in theatre, and their knowledge in the areas of critical literacy and retelling and dramatization.

Appendix

Student Learning in Bridges Classrooms at Evergreen Park World Studies Elementary School

Bridges students at Evergreen Park World Studies Elementary School participated in the program for twenty-one weeks rather than the standard thirty-one weeks due to the amount of funding available for Bridges at their school. Because the students did not participate in the full Bridges program, the results of their assessments are reported separately in this section. There were several sources student learning data for Evergreen Park students:

- The surveys completed by classroom teachers and teaching artists in May
- A survey completed by students in May
- A writing assessment

Results from Classroom Teacher and Teaching Artist Surveys

The May survey for classroom teachers and teaching artists included questions about student learning in three areas: writing; retelling and dramatization; and critical literacy. The survey responses from classroom teachers and teaching artists who worked with students at Evergreen Park indicate that they observed improvements in student learning in each area.

Classroom teachers' responses to items about student learning in the area of writing were positive overall, yet there is room for improvement (See Table A1). One hundred percent of them marked either agree or strongly agree for the items about students' enjoyment of writing and their ability to write with descriptive details. In contrast, one-third of the classroom teachers and teaching artists marked disagree when asked about students' skills in writing with rich, complete sentences.

In the area of retelling and dramatization one hundred percent of the classroom teachers and teaching artists chose either agree or strongly agree when asked about gains in students' oral communication skills and their confidence in telling stories in front of the class (See Table A2). Eighty-three percent marked strongly agree for the item, "Students enjoy acting in front of the class." In comparison, only one-third of the classroom teachers and teaching artists marked strongly agree for the item about students' ability to project their voice when speaking in front of others and the item about increases in vocabulary for students who are learning English as a second language.

Critical literacy was the third area of students' skills included on the classroom teacher and teaching artist surveys. Overall, the classroom teachers and teaching artists indicated there was improvement in students' skills in this area (See Table A3). One hundred percent chose either agree or strongly agree for five of the six skills listed on the surveys. Items with the highest proportion of classroom teachers and teaching artists who marked strongly agree (40%) addressed students' skills in: looking for multiple perspectives in Bridges stories; questioning the assumptions that underlie the stories used in Bridges; and using acting and/or writing to transform the stories used in Bridges in ways that challenge underlying assumptions.

Table A1
Perceptions of Student Learning in Writing: May
(N=6)

<i>From the beginning of the year to date, what changes have you observed in at least a majority of your students?</i>	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
WRITING:				
Students' enjoyment of writing has improved.	0%	0%	50%	50%
Students write with descriptive details.	0%	0%	50%	50%
Students write with an awareness of a clear, central idea.	0%	17%	67%	17%
Students write with rich, complete sentences.	0%	33%	50%	17%

Table A2
Perceptions of Student Learning in Retelling and Dramatization: May
(N=6)

<i>From the beginning of the year to date, what changes have you observed in at least a majority of your students?</i>	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
RETELLING & DRAMATIZATION:				
Students project their voice when speaking in front of others.	0%	0%	67%	33%
Students use clear diction when speaking in front of others.	0%	0%	83%	17%
Students' oral communication skills have improved.	0%	0%	0%	100%
Students have gained confidence when telling stories in front of the class.	0%	0%	0%	100%
Students animate their bodies in their scenes.	0%	0%	50%	50%
Students enjoy acting in front of the class.	0%	0%	17%	83%
ELL students have increased their vocabulary.	0%	0%	67%	33%

Table A3
Perceptions of Student Learning in Critical Literacy: May
(N=6)

<i>From the beginning of the year to date, what changes have you observed in at least a majority of your students?</i>	Percent			
	Strongly Disagree	Disagree	Agree	Strongly Agree
CRITICAL LITERACY:				
Students have become more skilled in looking for meanings in stories.	0%	0%	80%	20%
Students have become more skilled looking for multiple perspectives in the stories.	0%	0%	60%	40%
Students question the world in which they live through analysis of stories.	0%	20%	80%	0%
Students have become more skilled at discussing the assumptions that underlie the stories used in Bridges.	0%	0%	80%	20%
Students have become more skilled at questioning these assumptions.	0%	0%	60%	40%

Results from the Student Survey

Ninety-nine percent of the Bridges students (74 of 75) completed a survey in May. The survey asked students to think about how their skills in six areas may have changed since the beginning of Bridges. They were instructed to choose the answer that describes them best on a four-point scale from strongly disagree to strongly agree. Ninety percent of the students marked either agree or strongly agree when asked if their skills had gotten better in writing stories and in describing a character in their writing (See Table A4). Eighty-five percent of the students chose a response of agree or strongly agree in response to the statement about improvement in their ability to describe a place in their writing. The smallest proportion of students indicated that their skills had improved in writing stories that contain surprises for the reader and in retelling their stories in front of the class. The percentage of students choosing a response of strongly disagree or disagree for these items was twenty-two percent and thirty-eight percent, respectively.

Table A4
 Students' Reflections on their Learning: Grades Four through Six
 (N=74)

<i>From the beginning of the year until now I've gotten better at _____</i>	Percent of Students			
	Strongly Disagree	Disagree	Agree	Strongly Agree
Writing stories.	3%	7%	64%	26%
Putting descriptive details in my writing.	3%	14%	63%	20%
Describing a place in my writing.	0%	15%	61%	24%
Describing a character in my writing.	4%	5%	57%	33%
Writing stories that contain surprises for the listener or reader.	3%	19%	44%	34%
Retelling my stories in front of the class.	17%	21%	39%	24%

Results from the Writing Assessment

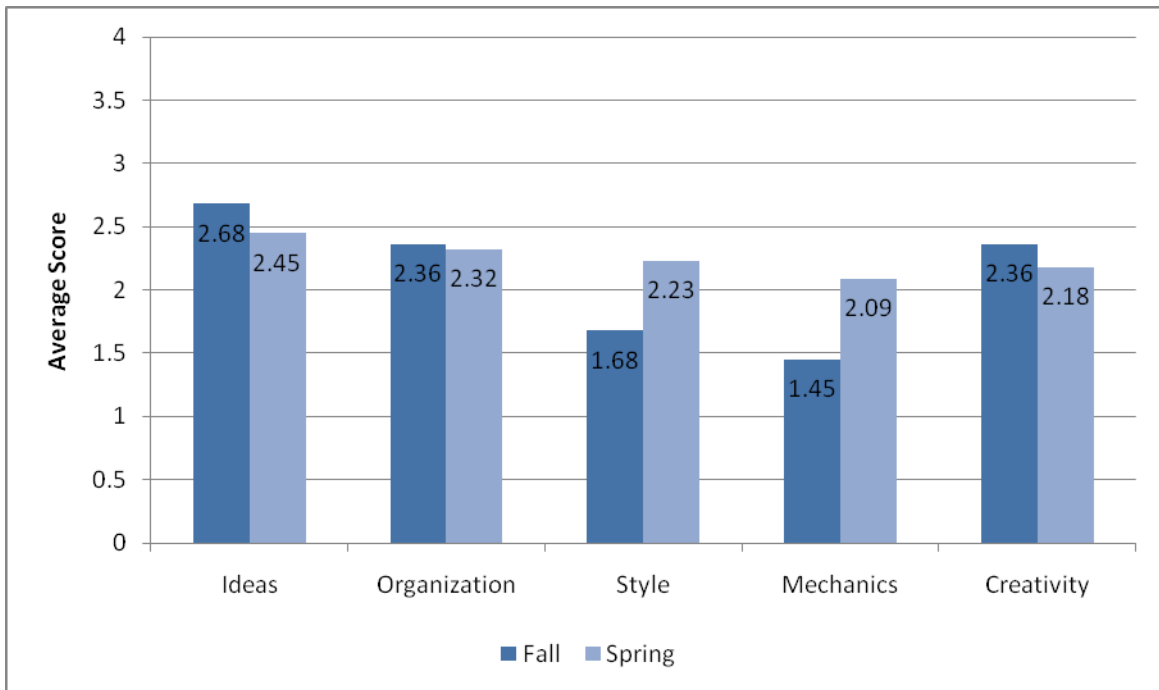
Writing samples were available in both the fall and the spring for eleven Evergreen Park students. There were statistically significant increases on the writing assessment rubric dimensions of style and mechanics (see Table A5 and Figure A1). The largest increase was on mechanics. The mean score in the fall was 1.45 out of a possible 4 points; in the spring the mean was 2.09. For the dimension of style, the average score increased from an average of 1.68 in December to an average of 2.23 in the spring. In contrast, the average score decreased from fall to spring for the dimensions of ideas, organization, and creativity. The largest decrease occurred in ideas where the fall average was 2.68 out of a possible 4 points and the spring average was 2.45. The average overall score on the fall writing assessment was 10.55 out of a possible of 20 points. The mean total writing score when students' writing was re-sampled in the spring was 11.27, an increase from baseline that was not statistically significant.

Table A5
 Writing Assessment: Rubric Dimensions
 (N=11)

	Fall Mean	Spring Mean
Ideas	2.68	2.45
Organization	2.36	2.32
Style*	1.68	2.23
Mechanics*	1.45	2.09
Creativity	2.36	2.18
Overall Score	10.55	11.27

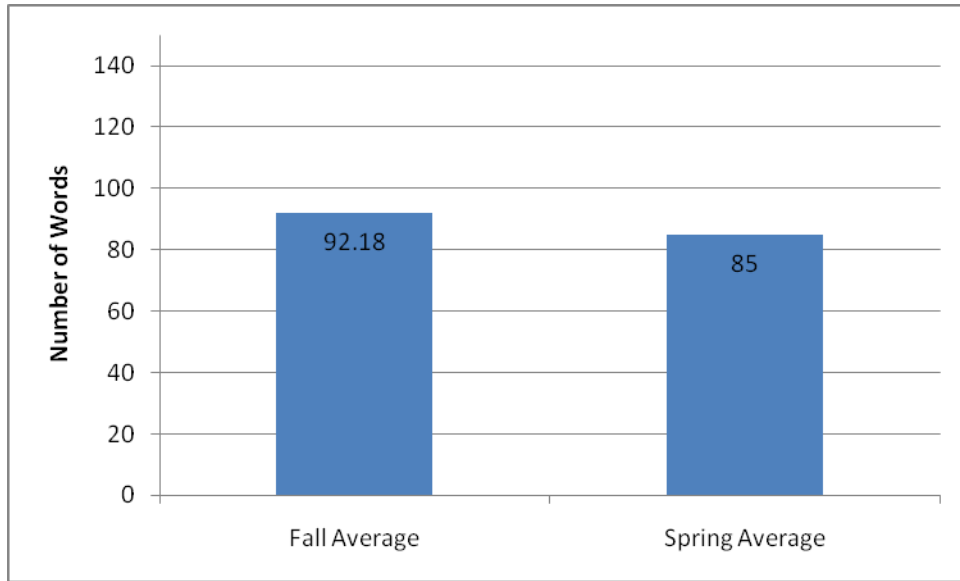
*The change from fall to spring was statistically significant at $p < .05$ on a matched-pairs t-test.

Figure A1
 Writing Assessment at Evergreen Park World Studies Elementary School:
 Average Scores by Rubric Dimension



The average total word count in the spring was 85.00 words, a decrease from the fall baseline mean of 92.18 words (see Figure A2). This decrease is atypical of results on the *Neighborhood Bridges Writing Assessment*, as are the decreases from fall to spring in the average scores for the dimensions of ideas, organization and creativity. Researchers and Bridges staff should examine how both the Bridges program and the writing assessment were implemented at Evergreen Park to determine if there were significant differences from the other Bridges schools in how the program or the assessment were implemented that might explain these unusual results.

Figure A2
Writing Assessment at Evergreen Park World Studies Elementary School:
Average Word Count



ⁱ The six classroom teachers and teaching artists that worked in the three Bridges classrooms at Evergreen Park World Studies Elementary School did not complete the December survey Bridges did not begin there until January, 2011.

ⁱⁱ Students needed to have written consent from their parent or legal guardian and then review and sign a student assent form before they could to participate in the study.

ⁱⁱⁱ On the teaching artist survey this item reads, “I have developed good rapport with my students.”

^{iv} Results for students at Evergreen Park World Studies Elementary School are reported separately in the Appendix because Bridges began in January at their school, rather than in September, as it did at the other schools.

^v One Bridges classroom located in the East Metro area was not included in this part of the study because the Bridges class meets after school and there was not sufficient time to administer either the fall or spring vocabulary assessment.

^{vi} Although the matched sample included thirty-four students, the data in this table are based on thirty-one students because the writing sample from three students did not provide sufficient information for the reviewers to assign a score to one or more of the rubric dimensions. For these three students, the word count was the only data available.

^{vii} Although the matched sample included twenty-five students, the data in this table are based on twenty-two students because for three of the twenty-five students the writing sample did not provide sufficient information for the reviewers to assign a score to one or more of the rubric dimensions. For these three students, the word count was the only data available.