

About The LEAGUE

Think of The LEAGUE as a sports-type league for doing good. Imagine that every school belongs to The LEAGUE where each community school is a team and every student is a player. Teams learn about philanthropy, service, character and leadership in the classroom and practice it in the community.

Teams are led by classroom-elected student Captains, supported by the classroom teacher and both are guided by a motivated teacher-trainer—the school’s “Coach.” The Coach is appointed by the principal to facilitate the involvement of other teachers, mentor student Classroom Captains and reach out to local businesses and volunteer groups.

The curriculum is developed and supported through a merger with *Learning to Give*. *Learning to Give* curriculum empowers young people to make a difference in their school, their community and the world. Student learn why they should be a part of their community, the reasons they should act for the common good and how the dovetails with what they are learning in school.

Learning to Give offers more than 1000 teacher-created lesson plans, activities and resources, coded to state educational standards, to educate youth about the power of philanthropy (defined as the sharing of time, talent and treasure) with creative connections to character education, service learning and civic engagement—all tied to curricular educational objectives. See learningtogive.org for more information and additional resources.

The LEAGUE creatively brings together the community, the curriculum content disciplines, philanthropy education and service, and students—educating and inspiring them to become an active, engaged and giving citizenry.

The 53rd Card

A LEAGUE Bridge deck contains 53 cards. The 53rd card is a unique “Play It Forward” card that students can use to create “Bridges” in the community, becoming a literal “Wild Card” within The LEAGUE Event structure. Once a student learns the game of Bridge, they can use those skills for community-building service projects. The game of Bridge gives students a common language to use when visiting Senior Centers or allows students to plan multi-generational games and tournaments. These projects, coupled with the classroom curriculum become a “Wild Card” Event for The LEAGUE participants, earning them points for their volunteer efforts.



What's Different About The LEAGUE?

- Measures and reports a “hard currency” value on young people’s contributions to society.
- Teaches children the broader concepts of “action for the common good” (philanthropy).
- Uses sports metaphors and the concept of “team” to make The LEAGUE fun and easy.
- Provides student recognition to reinforce young people’s sense of self-worth and adventure.
- Creates an Internet-based system for tracking student contributions of time, talent, and treasure.
- Engages businesses and corporations at all levels as supporters for The LEAGUE activities and learning about philanthropy (a new way to support learning).
- Engages local, state, and national media in reporting positive youth stories.
- Shows parents and communities that their schools, teachers and students are vital contributors to “the common good.”

How Bridge fits with The LEAGUE

One aspect of The LEAGUE is helping students develop critical thinking skills that allow them to identify issues in the community as well as solutions to address those issues. One way to do that is to have the students play games that foster skills essential to critical thinking, learning and socialization. Learning the game of Bridge can help students learn and nurture those skills.

Teaching children Bridge in the classroom also give students a tool to connect with their community. A main focus of The LEAGUE program is building communities and giving students a foundation from which to grow. Playing Bridge gives students a common language to communicate with other Bridge-playing adults and students in their community, which in turn open the door to other conversations.



School Bridge League

School Bridge League is the product of a non-profit youth philanthropy organization working together with a couple of business leaders to create a system to introduce the game of Bridge to students and provide continued support to encourage the students to use and develop their skills.

School Bridge League is a division of The LEAGUE. The LEAGUE is changing the world by empowering youth everywhere to get in the game of giving thoughtfully of their time, treasure and talent to make the world a better place. The LEAGUE combines learning and doing in a team environment that offers philanthropy-themed lessons and year-round service events.

Bill Gates and Warren Buffett are partners in business, philanthropy - and Bridge. They are avid players and passionate about the life lessons that can be learned from the game, especially in decision making, critical thinking and teamwork. Their commitment forms the foundation for the School Bridge League.

Says Microsoft founder Gates: "Bridge helps you think about decisions and consequences before you make a move." Buffett, the investor and founder of Berkshire Hathaway, concurs: "Bridge is a great way to learn from inferences. A lot of decisions in life you make by inferring from what you know."

Already, The LEAGUE's programs were crafted around a concept attractive to students - service and learning in a sports-type environment with interscholastic competition. Already, The League was building a nationwide network of schools to participate. And already, The League had recognized the importance of matching curriculum with testing standards.

A new partnership was formed. With funding from Gates and Buffett, the School Bridge League is reaching across the nation, with detailed lesson plans matched to testing standards, custom Bridge supplies, and playing opportunities at schools, online and in the community.

The lifelong benefits of Bridge may not be immediately apparent to the new generation of players. Another attraction will get their initial attention. "It's educational," commented one young student of the game. "You just don't realize it because it's so much fun."

So strong is their passion that Gates and Buffett promised \$1 million to finance a Bridge program in schools, believing that young people should be introduced to the multi-faceted education embedded in a simple deck of 52 cards.

The Gates-Buffett initiative was made public in a New York Times article by Sharon Osberg. The duo asked Osberg, a business and Bridge partner and world champion player, to coordinate the project.

The project faced challenges. Students perceive the game as old-fashioned. Who would teach the children? What venues were available for them to play after they learned? How could Bridge meet the educational testing standards so critical to the success of today's academic programs?

Meanwhile, Osberg's article made an impression on Bill Hoogterp, founder of The League. Osberg identified Bridge with terms such as partnership, trust, communication,

logic and problem-solving. All of these are elements for success for The LEAGUE's mission to

build character, leadership and community relations. Gates and Buffett also articulated The LEAGUE's commitment to philanthropy. When you believe in something, you give back.

"It's educational," commented one young student of the game. "You just don't realize it because it's so much fun."

TALKING POINTS

Introducing Bridge and the School Bridge League to Schools



School Bridge League Educational Curriculum

Meeting State Standards

The lessons found on the Web site and included in the **BRIDGE IN A BOX** are correlated to academic curriculum standards for all states and provinces. For the most part, the lessons address standards in Math, Language arts and Social Studies.

To access the standards for a specific state:

1. Visit our curriculum Web site at LearningToGive.org.
2. Select "Lesson Search" from the top menu on the Homepage.
3. Select "Keyword Search"
4. On the Keyword Search tab, select "All" for all grade spans, then select the letter span "A-B"
5. Scroll to "Bridge League" in the alphabetical list and select a lesson.
6. Once you have called up the lesson, to the bottom and look for "State Standards". Choose a state and click on "View Standards." All of the state academic standards that apply to that particular lesson and grade span will appear.

Meeting NCLB Requirements

The Bridge lesson have also been designed to meet the character education traits as outlined in the government mandated public school requirements of No Child Left Behind – Title V. These Character Education Traits are listed as: Caring, Civic Virtue and Citizenship, Justice and Fairness, Respect, Responsibility, Trustworthiness and Giving.

Innovative Teaching Strategies

School Bridge League curriculum is designed to use highly successful instructional strategies, including:

1. Co-operative Learning
2. Addressing Multiple Intelligences such as Visual/Spatial Intelligence, Interpersonal Intelligence, Bodily/Kinesthetic Intelligence, and Logical/Mathematical Intelligence
3. Service Learning

The Game of Bridge

Bridge is a game full of strategy and tactics. It's part science, part math, part logic, part reason. Bridge embodies cooperation, logic, problem-solving and has even been linked to higher test scores among children (see accompanying study for supporting documentation). Bridge is also a partnership game. Trust, communication and patience are the essential attributes of winning at bridge. Bridge is a game, which builds and nourishes the following mental and social abilities:

- Partnership
- Teamwork
- Communication
- Logic
- Inferential Reasoning
- Problem Solving
- Mental Computation and Percentages
- Numbers and Operations
- Data Analysis and Probability
- Algebra
- Reasoning and Proof
- Social Interaction

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MATHEMATICAL APPLICATIONS of BRIDGE

Duplicate Bridge is a game of mathematics. The game is a vehicle for introducing concepts such as probability, percentages, data analysis, reasoning and proof, assessing value and applying this assessment to problem solving, and practicing inferential reasoning skills.

NUMBERS AND OPERATIONS

Students incorporate multiple evaluation methods to assess the value of their hand as well as their partner's and how to weigh these values.

DATA ANALYSIS & PROBABILITY

Students confront situations in each hand (game) which require them to assess the probability of certain outcomes and make decisions accordingly.

ALGEBRA

Players reason from the communication skills learned in the bidding (auction), the value of their hand (a), plus the value of their partner's hand (b), must equal a specific total (c). Therefore, decisions are then made to achieve their goals.

PROBLEM SOLVING

Each hand (game) amounts to a set of problems that must be evaluated and re-evaluated in the span of a few minutes

REASONING & PROOF

Based upon communications skills learned during the teaching process, students reason that they can achieve a stated goal (contract), which they set out to prove. Flaws in the proof result in scoring adjustments

COMMUNICATIONS

Students are taught the 'language' of bridge, which they use to communicate the value of their cards, formulate a goal (contract) and set out to prove.



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BRIDGE & STUDENT TEST SCORES CHANGES

by Christopher C. Shaw, Jr., Ph.D.

SUMMARY

This article reports a comparison of the average changes in the five test subjects of the Iowa Test of Basic Skills of one group of bridge-playing 5th grade students and five groups of non-bridge playing 5th grade students. The average Standard Score gain of the bridge-playing students was higher than the non-bridge playing students in all five subject areas at the end of 20 months and again at the end of 32 months.

BACKGROUND

During the Fall of 2001, Bobbie Klaus, one of the 5th grade teachers in Carlinville, Illinois learned the basics of how to play bridge. She decided to set up some short bridge lessons as part of her math instruction. The students liked playing the game so well, that they soon started asking if they could stay in from recess to keep playing. At the time her students learned how to play bridge, there was no intent of doing a research study. Thus, the students did not know they would be part of an experimental group to be compared with five other sections of fifth grade students that year.

The “No Child Left Behind” education act was passed by Congress in 2001. It required extensive reporting on test scores. So, Terry Levan was appointed “the data guy” for the Carlinville Community School District. He immediately recognized that the scope of the reporting required the creation of a database and the use of a computer.

Three years later, in 2004, I learned that he had written a series of computer programs which allowed for the tracking of student test scores over their entire time they were in the Carlinville school system. He wrote these programs in his spare time without any financial support from the school district. I asked Terry if we could track the changes in student test scores of the kids who learned to play bridge in Bobbie Klaus’s 2001 5th grade class and compare them to the changes of the non-bridge playing kids. He said we could track each student by using student number and could easily compute their changes in test scores in an Excel spread sheet. And, he created the data base to do that.

It turns out that the standardized testing schedule in the Carlinville schools has the kids taking the Iowa Test of Basic Skill, the ITBS, in September of 5th grade, April of 6th grade and April of 7th grade. Thus, the entire 5th grade in 2001-02 had been tested before one class of the six classes that year started to learn how to play bridge. They were all tested 20 months later as 6th graders and again 32 months later as 7th graders.

The 5th grade class of 2002-03 did not have the opportunity to learn to play bridge because a new “Everyday Math” math program was started. Bobbie Klaus resumed using bridge as part of her math instruction with the 2003-04 5th grade class. This change allowed the tracking of the students of the same teacher over a three year period with the middle year students not learning how to play bridge. This arrangement removed the teacher as a variable in the results to be analyzed.

The happening of all these events in Carlinville created a “researcher’s serendipity.” There was pre-testing of all the students in the 5th grade and post-testing at the 20th and 30th month intervals. There was a large control group that did not learn how to play bridge. There

was an experimental group who did learn how to play bridge. There was a standardized testing program in which the same scoring scale was used for all three tests.

In fact, the ITBS has five separate subject areas scored separately. This test structure and scoring scale allowed a comparison of the performance of five non-bridge groups of students to one test group of bridge playing students on all five subjects. And, there was a database that could track the scores over the three years to see how much gain the two groups would make.

Putting all of this together, Lion George Banziger, Terry Levan and I put together a grant application and sent it to the Board of Trustees of the Educational Foundation of the American Contract Bridge League. As a member of the Board of Trustees, I was able to present the application, but did not vote on it to avoid a conflict of interest. The grant was approved at the Fall 2004 North American Bridge Championships and the research began in 2005. It continued in 2006 and is scheduled to finish sometime in 2007. A follow-on grant application may be submitted sometime this year.

METHOD

The first step in building the data base was to link the student to the teacher by using student number. Six files were constructed using the teacher's name with the student numbers for each teacher. Students who moved or repeated 5th grade had to be deleted from the data base. Thus, the six classes which started with 18 to 20 students in the 5th grade ended up with 15 to 20 students who took all three tests over 32 months.

The starting average test scores in the five subjects of the ITBS of each of the six sections and the average score of all 101 students in the six sections of the 2001 5th grade class are shown in Table 1 below. The fact that the principal had assigned the students to the six sections to provide about equal ability in each section is reflected in the small spread of average scores. These results provided a solid starting point from which to measure the progress of all of the students and then compare the progress of the bridge playing students to the progress of the students who did not learn to play bridge.

When the students entered 6th grade, they were given individual class schedules. This mixing of the experimental and the control groups actually strengthened the validity of the study. Table 2 contains the average scores of the ITBS administered in April 2003 taken by these 6th graders using their original 5th section assignments. Table 3 shows the 20-month average test score gains by the original 5th grade sections.

The same procedures applied to the group when they were 7th graders. They also had individual class schedules and took the ITBS exams in April 2004. Table 4 contains the 32-month average ITBS scores. Table 6 contains the 32-month gains by original 5th grade sections.

RESULTS

Table 1 shows the starting point average test scores for each of the six sections of the 2001-02 5th grade class. Table 2 shows the average test scores 20 months later. Table 3 is produced by subtracting Table 1 scores from Table 2 scores and it shows the average 20 month gain in each subject area. Table 4 contains the average test scores 32 months later. Table 5 is produced by subtracting Table 1 scores from Table 4 scores and it shows the average 32 month gain in each subject area.

TABLE 1
Section Average Standard Test Scores
September 2001 ITBS (Before Bridge)

SECTION(#)	READING	LANGUAGE	MATH	SCIENCE	SOCIAL STUDIES
BRIDGE (15)	217.07	206.47	211.07	214.47	221.73
NB-1 (18)	210.94	211.06	207.06	214.28	214.22
NB-2 (17)	215.94	211.53	209.59	224.00	223.12
NB-3 (15)	211.87	207.40	208.93	219.33	219.13
NB-4 (16)	220.75	221.75	216.63	230.75	230.50
NB-5 (20)	214.85	213.00	216.30	225.30	219.65
NB AVE (86)	214.83	212.95	211.81	222.70	221.13
CLASS AVE. (101)	215	212	212	221	221

TABLE 2
Section Average Standard Test Scores
April 2003 ITBS (20 Month Later)

SECTION (#)	READING	LANGUAGE	MATH	SCIENCE	SOCIAL STUDIES
BRIDGE(15)	238.53	231.53	236.27	254.73	264.13
NB-1 (18)	230.67	236.44	227.94	249.11	245.11
NB-2 (17)	241.35	242.06	243.29	258.41	250.00
NB-3 (15)	234.26	224.33	229.00	246.53	246.80
NB-4 (16)	239.94	241.25	239.25	267.81	265.06
NB-5 (20)	239.30	240.40	234.65	253.50	248.00
NB AVE (86)	237.14	237.26	234.83	255.00	250.76
CLASS AVE. (101)	237	236	235	255	253

TABLE 3
20 Month Average Gain by Section

SECTION(#)	READING	LANGUAGE	MATH	SCIENCE	SOCIAL STUDIES
BRIDGE (15)	21.46	25.06	25.20	40.26	42.40
NB-1 (18)	19.73	25.38	20.88	34.83	30.89
NB-2 (17)	25.41	30.53	33.70	34.41	26.88
NB-3 (15)	22.39	16.93	20.07	27.20	27.67
NB-4 (16)	19.19	19.50	22.62	37.06	34.56
NB-5 (20)	24.45	27.40	18.35	28.20	28.35
NB AVE (86)	22.32	24.30	23.00	32.29	29.63
AVE (101)	22	24	23	34	32

TABLE 4
Section Average Standard Test Scores
April 2004 (32 months later)

SECTION(#)	READING	LANGUAGE	MATH	SCIENCE	SOCIAL STUDIES
BRIDGE(15)	257.93	257.53	262.60	266.73	266.87
5 NB AVE (86)	248.70	258.61	253.30	260.21	245.89
NB-1 (18)	243.50	257.11	243.50	257.67	254.11
NB-2 (17)	252.11	263.35	261.65	262.47	261.53
NB-3 (15)	245.20	248.60	249.40	254.93	249.93
NB-4 (16)	252.81	262.56	259.06	269.69	269.63
NB-5 (20)	249.80	260.30	253.35	256.95	254.80
Average (101)	250	258	255	261	259

TABLE 5
32 Month Average Gain by Section

SECTION(#)	READING	LANGUAGE	MATH	SCIENCE	SOCIAL STUDIES
BRIDGE(15)	40.86	51.06	51.53	52.26	45.14
5 NB AVE (86)	33.87	45.04	41.48	37.52	36.77
DIFFERENCE	6.99	6.02	10.05	14.74	8.37
NB-1 (18)	32.56	46.05	36.44	43.39	39.89
NB-2(17)	36.17	51.82	52.06	38.47	38.14
NB-3(15)	33.33	41.20	40.47	35.60	30.80
NB-4(16)	32.06	40.81	42.43	38.94	39.13
NB-5(20)	34.95	47.30	37.05	31.65	35.15
Average(101)	35	46	43	40	38

DISCUSSION

The 20 month average test score gains show that the bridge playing students did slightly better than their classmates in Math; much better in Science, and very much better in Social Studies which was the only subject area to be a statistically significant difference. See Table 6.

The 32 month average test score gains show that the bridge playing students were higher in all five subject areas. Language was the only one that was not statistically significant.

Since bridge is a quantitative game, better scores in Math and Science were expected. The higher gains in Reading, Language, and Social Science may be caused by the faster development of inferential reasoning skills. Further research is needed in this area.

Table 6.
Summary of Statistical Analyses of Comparison of Fifth Grade Bridge-Playing and Non-Bridge-Playing Groups on the Iowa Tests of Basic Skills

	Bridge-Playing Class (1) Average Scores	Non-Bridge-Playing Class (5) Average Scores	One-tailed t-test of Significance ¹	Probability of Difference (Level of Significance)
Math				
20-month	25.2	23.0	0.455	0.327
32-month	51.5	41.5	-1.805	0.043*
Science				
20-month	40.3	30.3	1.29	0.107
32-month	52.3	37.5	-1.999	0.030*
Reading				
20-month	21.5	27.2	0.195	0.424
32-month	40.9	33.9	-2.177	0.020*
Language				
20-month	25.1	26.2	0.227	0.411
32-month	51.1	45.1	0.947	0.178
Social Studies				
20-month	42.4	29.6	2.063	0.026*
32-month	45.1	36.8	-1.012	0.163

¹ A one tailed t-test of significance was used to test the null hypothesis that the bridge-playing group of students did not score significantly higher on the Iowa Test of Basic Skills than the non-bridge-playing group of students.

AN ANALYSIS OF STANDARDIZED TEST SCORE GAINS FOR THREE 5TH GRADE CLASSES OF THE SAME TEACHER

This report contains the class average gains on the Iowa Test of Basic Skills for three consecutive 5th grade classes taught by the same teacher at the Carlinville, Illinois Intermediate School for the years 2001-2003. The students were tested in September of 5th grade, May of 6th grade, and May of 7th grade. The gains in test scores are shown for both the 20-month interval and the 32-month interval between tests. The 2002 5th grade class did not receive bridge lessons as part of their math instruction in the classroom. The 2001 and the 2003 classes learned how to play bridge. The average ability of all three classes was approximately the same when they started 5th grade. Thus, the test score gains appear to reflect the impact that learning bridge has on the student's ability to learn in both 6th and 7th grades. Learning bridge helped students develop their inferential reasoning skills. These skills were used in all 5 subject areas of the Iowa Test of Basic Skills.

20-MONTH AVERAGE TEST SCORE GAINS

YEAR	READING	MATH	SOCIAL STUDIES	LANGUAGE	SCIENCE	
2001-02	21.47	25.20	21.99	18.03	40.27	Bridge
2002-03	17.43	24.26	14.31	30.52	29.79	No Br.
2003-04	28.50	34.95	24.17	32.11	24.67	Bridge

32-MONTH AVERAGE TEST SCORE GAINS

2001-02	40.87	51.53	45.13	51.07	52.27	Bridge
2002-03	23.37	36.42	25.15	30.05	36.05	No Br.
2003-04	39.72	45.67	32.50	37.17	45.11	Bridge

The 2001 bridge students had higher test score gains than the 2002 students at the end of 20 months and 32 months in 4 of the 5 subjects. The average Language gain of the 2001 class was lower than the 2002 class and the 2003 class gain was slightly better than 2002.

The 2003 bridge students out gained the 2002 class with the exception of Science at the end of 20 months. Note that they exceeded the gain of the 2002 students by the end of 30 months.

The game of bridge helps to develop inferential skills in both the bidding and the playing of a contract. It is possible that these inferential reasoning skills developed by learning to play bridge are needed more in the 7th grade curriculum to perform well on standardized tests. Students who learn how to play bridge start developing inferential reasoning skills. These skills are very difficult to teach to elementary students. They appear to be used in all five subject areas in middle school.

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The School Bridge League would like to extend our appreciation to Dr. Shaw for permitting the use of this resource.