

Evaluation of Jeopardy as a Test Preparation Tool



Submitted by: Chip Flemmer

A report submitted to:

**Dr. Jeremy Tutty, Boise State University and
Wester Middle School Social Studies Department**

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Introduction

The purpose of this evaluation is to consider the effectiveness of using a simulated version of the famous television game, Jeopardy, as a study tool for test preparation. It is quite common for teachers throughout Wester Middle School to use Jeopardy as a fun way to help students prepare for upcoming tests or to assist in reviewing key concepts.

Jeopardy is designed to take questions that you would typically see on a study guide or a test and use them in the Jeopardy game format. The game is very popular at Wester Middle School in a wide variety of disciplines. Jeopardy has even been used in a staff development sessions. The pressing question is “Does Jeopardy actually help improve student test results?”

Program Description

This evaluation featured two of Chip Flemmer’s three social studies classes using Jeopardy to help prepare for a test while the third class used the game. This study occurred over the course of three separate tests with each of Flemmer’s three classes taking a turn at being the group that didn’t have the opportunity to prepare for their test by using Jeopardy.

Wester Middle School is always looking for new and innovative ways in which to increase student’s test scores and they take pride in emphasizing utilization of technology in the classroom. There are practices, like using Jeopardy, which have been in place for a long time at Wester Middle School and

whose validity has been questioned. One of these practices at the top of teacher curiosity list is the use of Jeopardy to help students review for tests.

There are numerous objectives that are being tested in the social studies classes; however, there are two objectives that this evaluation focused on. Jeopardy helps classes meet the first objective which is the TEKS (Texas Essential Knowledge and Skill) #21 which states that in social studies the student applies critical-thinking skills to organize and use information acquired from a variety of sources including **electronic technology**. Teachers are always trying to incorporate technology into lessons and have discovered that using Jeopardy is an easy ways for teachers to say that they are addressing the use of technology in their classrooms.

The second objective is TEKS #27 which also addresses social studies skills and wants the student to use **problem-solving** and decision-making skills, working independently and with others, **in a variety of settings**.

Evaluation Method

The focus of this evaluation was to determine the benefit that using a Jeopardy game in addition to a study guide has on student's social studies test scores. The way this was evaluated was by analyzing test scores which compare performances of the classes as well as individual students using Jeopardy versus not using Jeopardy in the test preparation.

Wester Middle School has an enrollment of 804 students and has an Exemplary Rating by the Texas Education Association which is the highest such rating that is given by the state. Wester School Profile:

<http://www.friscoisd.org/schools/profiles/wester.pdf>

Most of the units in sixth grade social studies are between five-to-eight hours on instruction. To gather a strong sampling of tests, it was decided by the evaluators to use data from three separate tests (Map Skills Test, Seven Elements of Culture Test, and finally a North America Test). This evaluation is being done for the benefit of all social studies teachers on campus who use or don't use the game to help in forming an opinion as to the value of Jeopardy's use. The question that is pressing for this evaluation has to be: Is there a significant difference in class scores when students use the Jeopardy game to help them prepare for a test?

This evaluation used the sixth grade world culture students from three different classes. Jeopardy is intended to be a rewarding supplement to the study guide with the belief that it helps students prepare for their upcoming test. Students do not receive a grade for playing the Jeopardy game. The three classes being used are very similar in academic ability which was very evident from the Class Average at the 1st Six Weeks report card (see information below from Table 1.).

Table 1.
World Cultures Class Information

Class Period	Gifted/Talented	Resource	Total	Class Grade
5	5	4	19	91.04
7	4	3	24	92.58
8	0	3	23	92.8

8th period, which is the only class without a student from the gifted and talented program, has some students who moved in from out-of-state and are very strong students academically.

Jeopardy use was evaluated over the course of three separate tests. In each test there was two classes using the Jeopardy game in addition to the study guide and the other class didn't use Jeopardy, only the study guide. Each of the three classes will have their turn being the group not to use the Jeopardy game as a supplement to the study guide.

The data compares each individual class's averages on the two tests when they used Jeopardy versus the one test when they didn't use Jeopardy. It also compares the class that didn't use Jeopardy's average versus the other two classes that used Jeopardy on each particular test. Finally, this evaluation looked at individual scores and check for patterns as to any noticeable differences of Jeopardy use versus no Jeopardy use.

Student attitude was evaluated by using a survey for the purpose of determining what the student's felt about Jeopardy as a test preparation tool. There was also an informal interview conducted with the social studies teachers as well as the three classes to obtain more information regarding a variety of ideas and opinions. Actual test results from the evaluation can be seen below in Table 2.

Table 2.
Test Results

Class Period	Map Skills Test	Seven Elements	North America
5	89.32	87.95	92.65
7	90.57	85.25	90.71
8	92.0	84.91	85.14

Class without Jeopardy's Statistics are in Red.

The results of test one featured 7th and 8th periods using the Jeopardy game in addition to the study guide to help them prepare for the test. 5th period ended-up scoring the lowest (though not by much) and they were only using their study guides to help them prepare for the test. The scores on test one for all very good and even though the class that scored the lowest was the one that didn't have the Jeopardy game, evaluators didn't find the numbers to be alarming in their extent of difference.

Test two featured 5th and 8th periods using the Jeopardy game in addition to the study guide and 7th period was only allowed to use the study guide. The test results were also fairly close in all three classes. 7th period's scores were lower than 5th period by 2.7%, but higher than 8th period by 0.34%.

The thing that stood out when analyzing the results of the first two tests was that 7th period had the scores in the middle for both tests, whereas 5th period went from worst to first while 8th period went from first to worst. This caused the evaluators to hypothesize that it didn't matter with 7th period whether they used the Jeopardy game or not, they would be the middle group and do just fine while 5th and 8th periods needed the extra assistance of a Jeopardy game to help them prepare.

Test three showed the greatest difference in averages between the Jeopardy and the no Jeopardy groups. The group that didn't use Jeopardy scored 5.57% less than the two groups that used the game. Despite the lower scores without using Jeopardy, after the group that didn't use the Jeopardy game found out that they were a part of my evaluation; they overwhelmingly preferred it when their teacher helped them review (along with their study guides) **without** the assistance of Jeopardy.

Table Two breaks down each individual student's performance by giving a test score average of No Jeopardy, Jeopardy, and then giving a final result of whether or no their scores were better, worse, or even with using Jeopardy.

Sixty-eight percent of the students actually scored better when they had a game of Jeopardy to help them prepare for a test in addition to just a standard

study guide. 30.2% of the students did worse when they had Jeopardy as a supplement. 1.5% of the students performed exactly the same with Jeopardy as without Jeopardy.

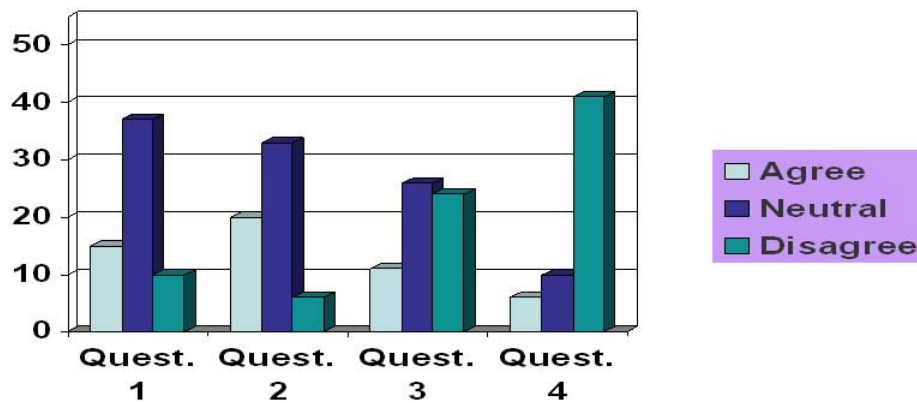
Individual results for each test can be seen in Tables 4, 5, and 6 of the Appendix.

The number of students doing better with Jeopardy was much larger than the number that did better without Jeopardy. Test one's class averages ranged from 89.32% to 92.0% which wasn't much difference. Test two's class averages ranged from 84.91% to 87.95% which is also very close. At this point it was thought that perhaps Jeopardy had little to no impact on the scores for my students. The test three ranges were 85.14% to 92.65%. Test three featured the lowest academic class not having Jeopardy. Even with this gap of a 7.51% difference in class average, evaluators didn't think that when the individual numbers were crunched that over 68% of the students would score better when using Jeopardy as opposed to now using the game.

Table 3.

Student Survey

Student Survey



Question One: Is Jeopardy something that is used in other classrooms?
*Agree means in this case three or more classes. Neutral means two classes.
Disagree means only in social studies.

Question Two: Do you enjoy Jeopardy as a study aid?

Question Three: Does Jeopardy help your test scores?

Question Four: Do you dislike Jeopardy in the classroom?

From the survey it was concluded that Jeopardy is used in other classes as a study tool, the students enjoy using the game as a study aid; absolutely have a strong dislike toward playing the game, however, an overwhelming majority of the students believe that the game has little to no help on their test scores.

Discussion

Now, what does all of this mean? Since the purpose of the evaluation was to take a closer look at the effectiveness of integrating Jeopardy into the classroom as a tool to prepare students for tests, teachers plan on continuing the use of Jeopardy with their classes. This evaluation was concerned with looking for any correlation that might suggest that playing Jeopardy has a positive impact on student test scores. Though the class averages weren't dramatically different in their range on each particular test, the fact that 68% of the students scored better on their tests after playing Jeopardy the day before in class, evaluators found that teachers want to continue to do things in their classrooms that are effective. As for the other 30% that scored worse when using Jeopardy, through informal discussions regarding the matter, these students felt that the Jeopardy game was enough studying/preparation for them to do well on the tests. The success from what was observed came from the Jeopardy game being a supplement to their study guide.

The results from this evaluation do show that if there is any improvement on class averages from using Jeopardy as a study tool, it is only minimal. This shouldn't discourage us from using the game because the high percentage of individual success should outweigh any argument to view the slight differences in class averages.

This evaluation looked at the attitudes of students toward the game and found that several students didn't feel that playing the game had a great impact

on their scores; however, as a whole they really enjoy playing the game and would like to see it continued.

Despite what the students felt (Jeopardy not having much impact on their grade), the data suggests that there is a positive impact even if the numbers are not earth-shattering in regards to the amount of improvement. When it comes down to doing something that is fun and proves to be likelier than not to add a couple of percentage points to one's test scores; playing Jeopardy is well worth the time.

Teachers plan on continuing the use of Jeopardy as a supplement to their study guides prior to giving tests in social studies. The information has been passed on to the Wester Middle School world cultures teachers as well as the department head.

Project Costs



Personnel

Job	Recipient	Price
Evaluation Chairman	Chip Flemmer	\$250 x Six days = \$1,500
Evaluation Associate	Shannon Hodgkinson	\$250 x Two days = \$500
Evaluation Associate	Jennifer Davis	\$250 x Two days = \$500

Supplies, Miscellaneous

Item	Fee Rate	Total
Travel	\$0.50/ mile x 12 miles round trip daily (Flemmer) x 6 days	\$36
Travel	\$0.50/mile x 14 miles round trip daily (Hodgkinson) x 2 days	\$14
Travel	\$0.50/mile x 16 miles round trip daily (Davis) x 2 days	\$16
Communication	\$3/day x 6 days	\$18
Supplies, Printing, Etc.	Varies	\$50

Grand Total **\$2,634**

Appendix

Table 4.

5th Period Test Result Data

Student	No Jeopardy Average	Jeopardy Average	Result
1	100	100	Even
2	98	92	Worse
3	88	83.5	Worse
4	88	89.5	Better
5	85	97	Better
6	83	90	Better
7	75	89.5	Better
8	93	100	Better
9	90	95.5	Better
10	88	89	Better
11	83	85.5	Better
12	70	94.5	Better
13	90	92	Better
14	83	80	Worse
15.	85	89	Better
16	93	82	Worse
17	93	98	Better
18	93	68	Worse
19	93	98.5	Better

Totals: Even 1
 Better 13
 Worse 5

Table 5.

7th Period Test Result Data

Student	No Jeopardy Average	Jeopardy Average	Result
1	90	100	Better
2	78	89.5	Better
3	88	95	Better
4	100	100	Even
5	95	100	Better
6	95	100	Better
7	85	100	Better
8	95	93	Worse
9	80	68.5	Worse
10	88	81.5	Worse
11	88	94.5	Better
12	90	93	Better
13	93	98.5	Better
14	90	92.5	Better

15.	88	90	Better
16	90	99	Better
17	88	89	Better
18	57	65.5	Better
19	93	96	Better
20	85	94	Better
21	98	89	Worse
22	73	94.5	Better
23	90	85	Worse
24	54	65	Better

Totals: Even 1
 Better 18
 Worse 5

Table 6.

8th Period Test Result Data

Student	No Jeopardy Average	Jeopardy Average	Result
1	49	85	Better
2	88	92	Better
3	91	95.5	Better
4	n/a	93	n/a
5	85	78.5	Worse

6	73	91	Better
7	88	85	Worse
8	82	96.5	Better
9	97	98	Better
10	n/a	62	n/a
11	100	97.5	Worse
12	88	85	Worse
13	88	96.5	Better
14	100	90	Worse
15.	91	93	Better
16	91	90	Worse
17	91	77.5	Worse
18	85	94	Better
19	85	94.5	Better
20	67	94	Better
21	97	84	Worse
22	97	100	Better
23	100	95.5	Worse

8th Period Totals: Even 0
 Better 12
 Worse 9

Cumulative Totals: Even 2
 Better 43
 Worse 19