# Title: The Effect of Book Blogging on the Motivation of 3rd-Grade Students

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A Web 2.0 technology was implemented during reading instruction in one 3rd-grade classroom in suburban southeastern Pennsylvania. Trained preservice teachers provided feedback to students via the World Wide Web to enhance their performance and social connections. Motivation scores were measured before and after the intervention was implemented. A *t*-test for dependent samples indicated that there was a statistically significant improvement in motivation scores (p < .05). These findings indicate that having young students use interactive technologies can boost motivation relative to reading comprehension activities.

## Introduction

In modern society, individuals are inundated with multimedia during most of their waking existence. Cellular telephones, the Internet, and televisions communicate strong visual and auditory "bytes" that permeate everyday life. Perry (1999) asserted that the human brain has strong preferences for visual stimuli delivered in interactive, social, digestible quantities. Dresang (1999) elaborated upon this assertion, stating that "a fundamental change has occurred in the way children are encouraged to think, learn, and give and receive information in the digital age" (p. 161). Dresang believed that students construct information non-linearly, building and publishing knowledge that is socially and emotionally responsive to diverse cultures.

Clearly, the use of multimedia-based technology fosters content interaction that is responsive to students in the digital age. Competent educators must constantly explore and evaluate new technologies that are compatible with today's society and motivate students to work hard. Wikis and Blogs are two technologies designed for this purpose.

## Definitions

*Blogs* are functional websites that allow users to update and publish the site from any location. Similarly, *Wikis* are also collaborative websites where anyone can edit or augment published content (Richardson & Mancabelli, 2007). Both Wikis and Blogs promote social exchanges of information in small, visual-based "bytes." Technological tools, such as Wikis and Blogs, can enhance student motivation and learning, rendering the development of students that can handle social-emotional interactions in conjunction with intellectual development (Perry, 1999).

## The Study

An instructional intervention that employed Wiki technologies to increase students' motivation to respond meaningfully to guided reading texts was implemented in one suburban southeastern Pennsylvania 3rd-grade classroom. The intervention was implemented based upon the hypothesis that providing students with a public forum for revision, modeling, feedback, and social exchange would promote increased motivation. To create a baseline of information, students were provided with six weeks of traditional

instruction regarding guided reading responses. Students used index cards to respond to guided reading texts for one month, and all responses were scored according to a standardized reading rubric. All responses written during the baseline phase were static; no feedback was provided regarding student index card responses. Following the six weeks of traditional instruction, students rated their motivation during guided reading using a 6-point Likert scale.

After the baseline information was collected, the Book Blogs intervention provided students with instruction regarding posting a Blog to a Wiki. After the instruction was finished, students posted Blogs to respond to guided reading texts for six weeks. Students were also encouraged to read the responses of other students, and student-to-student feedback was encouraged. Preservice teachers, who were trained through a two-hour seminar, also assisted in the provision of feedback to students. Following the Book Blogs strategy implementation, students rated their motivation during guided reading using the same 6-point scale as employed during the baseline phase. It was believed that the students would have higher motivation scores due to the social connections, meaningful audiences, and carefully crafted feedback provided through the Wiki technologies.

## Wikis, Blogs and Authentic Audiences

When students use Wikis and Blogs, the audience is frequently unknown. Students are unsure what parties will be viewing or reading their information. When recounting his experiences using Blogs with preservice teachers, Hernández-Ramos reflected that the preservice teachers, "expressed a lot more uncertainty about their writing because they didn't have a target audience and didn't have parameters as to what constituted good writing versus bad writing given that the audience was much more diffuse."

However, other authors indicated that students' ability to create works publicly on Blogs is motivating and meaningful. Students are inspired by meaningful audiences for their writing. Youse, Kenniburg, and McCormack (2005) stated that their at-risk elementary students were "very enthusiastic" when using the Blogs for writing assignments because they could view their own work and the work of others online. Will Richardson, an expert in the field of educational Blogging at Seton Hall University, stated that Blogging makes his students more aware of what they are writing due to the existence of an authentic audience (Kennedy, 2003). Humphrey (1999) suggested that students may also work harder, saying that "[t]heir work is constantly being shared with and receiving responses from their peers as well as their professor. The rhetorical concept of audience emerges almost without awareness into the consciousness and practice of the students."

## Wikis, Blogs and Reflective Thinking

Wikis and Blogs are mediums that encourage reflective thinking. Although many Wikispaces and Blog posts are viewable to the public, individuals reveal sensitive, thought-provoking information. In a study conducted by Ray and Hocutt (2006), middle school teachers used Blogs to engage in pedagogical reflection. Although all participants engaged in some type of reflective behavior, many middle school teachers failed to use sophisticated metacognitive skills such as judgment and evaluation within the Blog postings.

Professional writers are also reflecting upon their work using Blogs. Author David Leviathian uses this practice, saying, "I'm completely plugged into their reactions and concerns and (if I'm lucky) praise. And I really have the Internet to thank for that" (Beaman, 2006).

## Wikis, Blogs and Social Connections

Learning within social contexts has fostered concept acquisition, cohesive written products, and open-minded attitudes in the classroom (Jang, 2007). Wikis and Blogs enhance the social connections available to students. Richardson (2007) lamented that collaboration is not used frequently enough in education, and classrooms must shift to reflect the modern mindset that one's work is constantly under the revision of others. Wikis and Blogs allow teachers to create classrooms where social interactions and constant revision are a part of the learning process (Richardson).

Research has also shown that adolescent children use Blogs to establish identity. An analysis of many adolescent Blogs has led Huffaker and Calvert (2005) to conclude that Blogs created by adolescent children reveal startling personal information that shapes identity.

In the past, educators have viewed reading and writing as solitary activities that occur internally. In today's age, industry demands writing to be a collaborative, revision-based activity, and Blogs support this notion (Lowe, 2004).

## Design

The design utilized in this study was an experimental one-group pretest-posttest design to determine whether or not the independent variable (the Book Blogs intervention) had an effect on the dependent variable (the level of student motivation as determined by a 6-point rating scale). Specifically, this design helped determine whether or not there was a statistically significant difference in student motivation when reading responses were recorded using traditional pencil and paper methods compared to the performance of the students using the Book Blogs intervention.

## Validity

The threats to internal validity in this design included history, maturation, mortality, instrumentation, and statistical regression (Gay, Mills, & Airasian, 2003). Three of these threats -- history, maturation, and mortality -- were not factors because of the short time frame of this study. Instrumentation was not a threat to internal validity because similar prompts and stories from a criterion-referenced guided reading program with accompanying rubrics were used for both phases of the study. Instrumentation was also not a threat to internal validity because the same 6-point Likert scale was used during both phases of the study. Further, all lessons and Likert scales were administered in the exact same manner by the same proctor. Statistical regression, defined as the tendency for scores to gravitate towards the mean, was not controlled in this study (Gay, Mills, & Airasian). Regarding external validity, Borg, Gall, and Gall (1993) stated that research findings are "externally valid to the degree that their results can be generalized to persons, settings, and times different from those involved in the research" (p. 303). No generalizations should be made from this study for populations that are demographically different from the participants involved.

## Participants

All subjects in the group were selected by nonrandom, convenience sampling, and participated in each of the experimental treatments. The student population was 100% Caucasian and the majority of subjects came from rural, lower-middle class socioeconomic backgrounds. The group of 3rd-grade students was selected based upon their existence in the researcher's classroom that was located in southeastern Pennsylvania.

## Procedures

In the first phase of this experiment, students were given direct instruction about reading response formation. Students were directed to respond to these prompts using index cards for a total of six weeks. Reading response rubric scores were calculated and shared with the students. While the first phase of the experiment occurred, preservice teachers were trained to provide structured feedback to reading responses. After the conclusion of the first phase of the experiment, students completed a 6-point Likert scale regarding their motivation levels during guided reading time.

In the second phase of the experiment (the Book Blogs intervention) students were given direct instruction about Wiki use and reading response formation. Reading response prompts were given to students, and students used Wiki technologies to respond to the prompts. Students could read other students' responses and create multiple posts for each prompt. Preservice teachers also responded to student work using specific praise and questioning. Final reading response rubric scores were calculated and shared with students. At the end of the six week intervention, students completed the same 6-point

scale regarding their motivation levels during guided reading time as completed during the first phase of the study.

A *t*-test for dependent samples was used to determine whether or not there was a statistically significant difference in student motivation scores when comparing index card use versus Wiki technology use at the $p < .05$ level.

## Data Analysis

Table 1 illustrates a comparison of aggregate data of the motivation scores for the traditional and Book Blogs methods. The motivation scores exhibited statistically significant increases after the Book Blogs intervention was utilized.

## Motivation Scores

Student motivation scores ($M = 3.62$) reported for traditional reading response methods were lower than the motivation scores ($M = 4.33$) reported when the *Book Blogs* intervention was used. The difference was shown to be statistically significant, $t(20) = 3.25$, $p < .05$.

### Table 1: Aggregate data for reported motivation scores for traditional and book blog methods

|  | Traditional Method | | Book Blogs | | *p* |
|---|---|---|---|---|---|
|  | *M* | *SD* | *M* | *SD* | |
| Motivation Scores | 3.62 | 2.96 | 4.33 | 3.67 | .004 |

## Anecdotal Data

Table 2 illustrates anecdotal comments written by students after the motivation rating scale was administered at the end of the intervention. Most notably, 59% of students reported preferences for keyboard use and 50% of students reported that they enjoyed posting feedback to friends using the technology.

**Table 2: Frequency of comments by students
(n=21) to the open ended questionnaire item**

| Response | f |
|---|---|
| Using the Wiki is easy because I can type. | 13 |
| I like posting comments to my friends. | 11 |
| I work harder because other people are reading what I post. | 7 |
| You can learn what other people know by reading their posts. | 6 |
| You receive feedback very quickly. | 4 |
| I receive more practice answering difficult questions. | 3 |
| I am motivated to read my guided reading books more carefully. | 3 |
| I prefer sharing on a post rather than verbally in a group. | 1 |

Table 3 illustrates anecdotal comments written by preservice teachers at the end of the intervention. Most notably, 57% of students reported excitement or openness to the idea of using a book Blog, but 71% of students were disappointed by the complexity of the students' responses. One respondent stated that

> [u]pon beginning this project, I had a very positive opinion toward the assignment. The project helped the students in (the teacher's) class by having electronic pen pals who could guide and test their reading and comprehension abilities.

Some preservice teachers also provided negative responses to the intervention. 71% of students were disappointed by the complexity of the students' responses. One respondent mentioned that

> [a]s the days went by and I was to post every Tuesday and Thursday, I became more and more frustrated by the situation. Students were not posting enough where I could write a though provoking question.

**Table 3: Frequency of comments by preservice
teachers (n=14) to the open ended questionnaire item**

| Response | f |
|---|---|
| Positive | |
| I was excited by the idea. | 8 |
| The site was easy to navigate. | 1 |
| Negative | |
| I was disappointed by the complexity of the student posts. | 10 |
| There was no opportunity to develop a relationship with a student. | 5 |
| I would prefer to use this technology with older students. | 2 |

## Student Reading Comprehension Levels

Student reading response rubric scores were not affected by the use of the Book Blogs intervention. Student rubric scores (M = 3.42) during the traditional instruction were lower than student rubric scores (M = 3.81) during the *Book Blogs* intervention. The increase in scores was shown to be statistically significant, $t(20) = 2.33$, $p < .05$. This increase is expected due to reading comprehension skills acquired over time as determined by the Fountas and Pinnel Text Gradient (Fountas & Pinnell, 2001). Students made average progress concerning reading comprehension during the study. Therefore, the implementation of the Book Blogs intervention does not interfere with reading comprehension progress for students.

## Findings

When the motivation scores using the traditional reading response method and the Book Blogs intervention were compared for all students in the sample, the Book Blogs intervention results were significantly higher. All students demonstrated increased motivation during the intervention, and the statistical permutations indicated that the increased motivation was linked to the Book Blogs intervention.

It should also be noted that, while all students demonstrated motivation increases using the Book Blogs intervention, some students demonstrated greater motivation increases than others. Students exhibiting the most significant increases were the ones who also experienced concomitant small motor deficits and reading comprehension deficiencies.

Further, student reading comprehension levels were not disrupted by the use of the Book Blogs strategy. Student rubric scores increased as expected for all students.

## Generalizability and Limitations

The results of this study may be most accurately generalized to 3rd-grade students. Researchers should recognize the uniqueness of this population, examine the data carefully, and make necessary adjustments before comparing these findings to other groups of students.

The sample of students used in this study was relatively small. The findings may not be representative of the population at large. The study was conducted with students who may possess personal attributes and other characteristics that differ from peers of different demographics and geographic locations.

Both the number of instructional sessions and student motivation assessments in this study were brief. There were only fifteen instructional sessions for each treatment (index card use and Wiki use). There was also only two motivation assessments performed throughout the study. Researchers may want to consider extending both the number of instructional sessions and the number of motivation assessments when replicating this study.

## Implications

The results of this research suggest that the Book Blogs intervention method may be a viable vehicle for improving student motivation when performing reading responses. It may then be implied that:

- Using instructional methods that foster high levels of social interaction and the use of student-to-student feedback may boost student motivation levels without jeopardizing achievement levels.
- Students with fine motor deficits may benefit from using Blog technologies due to the ease of typing.
- If teachers prefer using the Book Blogs intervention, it can be broadly employed within the classroom without apprehension of decreasing reading comprehension due to the implementation of the method.
- Students with reading comprehension difficulties may especially benefit from using Blog technologies for reading responses because they can view the responses of others as models.
- Preservice teachers involved in the project will need a lot of guidance. Small numbers of preservice teachers should be assigned to large numbers of students so that there are enough posts for both parties to review.

## Conclusion

Reading comprehension activities and reading responses are an integral part of the elementary learning process. Providing mediums that encourage student motivation and student interaction throughout the acquisition of reading comprehension skills greatly augments the classroom climate and overall achievement levels. In short, teachers and students are encouraged to Blog about books.

## References

Borg, W. R., Gall, J. P., & Gall, M. D. (1993). *Applying educational research: A practical guide* (3rd ed.). New York: Longman.

Beaman, A. (2006). YA lit 2.0: How technology is enhancing the pleasure reading experience. *Knowledge Quest, 35*(1), 30-33.

Dresang, E., & McClelland, K. (1999). Radical change: Digital age literature and learning. *Theory Into Practice*, *38*(3), 160-167.

Fountas, I., & Pinnell, G. (2001). *Guiding readers and writers: Teaching comprehension, genre, and content literacy.* Portsmouth, NH: Heinemann.

Gay, L. R., Mills, G., & Airasian, P. (2003). *Educational research: Competencies for analysis and application* (7th ed). Columbus, OH: Pearson Education, Inc.

Hernández-Ramos, P. (2004). Blogs, threaded discussions, activate constructivist teaching. *Distance Education Report, 8*(24), 4-15.

Houcutt, M., & Ray, B. (2006). Reflection and the middle school blogger: Do blogs support reflective practices? *Meridian Middle School Computer Technologies Journal, 9*(1), 1-15.

Huffaker, D. A., & Calvert, S. L. (2005). Gender, identity, and language use in teenage blogs. *Journal of Computer-Mediated Communication, 10*(2). Retrieved December 15, 2007, from http://jcmc.indiana.edu/vol10/issue2/huffaker.html

Humphrey, T. (1999). Literature online: The best of all possible worlds. *Currents in Electronic Literacy, 1*. Retrieved December 10, 2007, from http://www.cwrl.utexas.edu/currents/spr99/humphrey.html

Jang, S. (2007). A study of students' construction of science knowledge: Talk and writing in a collaborative group. *Educational Research, 49*(1), 65-81.

Kennedy, K. (2003). Writing with weblogs. *Technology and Learning,* 23(7), 11-12.

Lowe, C., & Williams, T. (2004). Moving to the public: Weblogs in the writing classroom. *Into the Blogosphere.* Retrieved December 10, 2007, from http://blog.lib.umn.edu/blogosphere/moving_to_the_public.html

Perry, B. (1999). Bruce Perry discusses the effects of technology on the brain. *Scholastic Early Childhood Today, 13*(6), 37-38.

Richardson, W. (2007). Teaching in a Web 2.0 world. *Kappa Delta Pi Record, 43*(4), 150-151.

Richardson, W., & Mancabelli, R. (2007). High tech inspires the read/write site. *The Education Digest, 72*(9), 14-18.

 Youse, C, Kenniburg, C., & McCormack, B. (2005). Student voices: Blogging and beyond. *Knowledge Quest, 33*(4), 21-22.

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