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Implementing and Promoting Library Programs Through Action Research

Marilyn Z. Joyce
Barbara Stein Martin

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1:30-2:45 P.M.
David L. Lawrence Convention Center
Room 319

Format for an Action Research Proposal

1. **Central Research Question** – Identifies the problem, concern, or area of interest.

2. **Background** - Explains the factors that surround the problem, concern, or area of interest.

3. **Research Questions** - Restates the central research question. Lists the subsidiary questions that support the central research question.

4. **Data Collection and Analysis** – Identifies data to be collected. Includes data collection tools that adhere to the principle of triangulation. Explains techniques and strategies for analyzing data and justifies their selection. Indicates personnel responsible for gathering and analyzing the data.

5. **Timeline** – Presents the timeline for the project. Includes personnel involved in the project and notes their responsibilities.

6. **Presentation of Findings** – Identifies stakeholders. Describes how findings will be presented to stakeholders.

Marilyn Z. Joyce and Barbara Stein Martin, Aug. 24, 2005

Linda Brand
Action Research Proposal

How Does the Use of "Thinking Maps" Affect a Student's Enjoyment of Story Time?

Background

_____ Elementary School in Texas, is a school where many students still actually like to read. In this age of TAKS [the state tests] overload, students at our school still manage to check out and read a surprisingly high number of books. (We have an enrollment of approximately 525 with an average circulation of over 3000 books per month.) We are a Title I school with 19% of the student body listed as LEP (Limited English Proficiency) students. There is a low-keyed Accelerated Reading program in place with emphasis on individual goals rather than number of points earned. Credit for the unusual reading behavior rests squarely on the shoulders of the previous librarian, whose love of books was passed on to students who enjoyed her library for over 20 years. My main objective this past year was to continue this program, making only minor cosmetic changes. The library is on a flexible schedule except for a fixed story time for four kindergarten classes and four first grades.

Story time in the library for kindergarten and first grade students is the first step in creating this love for books. This enjoyment of good literature is in itself a worthy goal of the library; however, if another goal could be reached at the same time without sacrificing the first, that could be even better. This second goal would be that of visualizing extended thinking beyond the reading of the story. It is a natural thing to ask questions and discuss what has been read with the listeners, but we have never had a way to "show" what we are thinking. Since most of us are visual thinkers, this present method of oral discussion provides a rather limited method of teaching comprehension

Last year, our principal introduced "Learning Maps" to the school. These are visual representations of eight different kinds of thinking: point of view, descriptive, comparison, persuasive, technical, narrative, prediction and analogy. Most, if not all of these maps, can be used with stories that are read aloud to students. As in most scenarios, some teachers jumped in with both feet, some waited to see how serious the principal was about using them, and some completely ignored them. Being a first year librarian, I was somewhat interested in them but felt I had too many other things to learn without starting something new. At the end of the school year, my principal asked if I would be interested in attending a "Thinking Maps" conference this summer and if I would consider implementing them in library story time.

Having now attended the conference, I can see many benefits in using these maps. I have also become interested in the attitudes and reactions of the students who will be participating in the creation of the maps. Will the enjoyment of story time remain the same, decrease, or actually increase? Will they begin to see for themselves what kind of map(s) could be used in a story? Would there be

any carryover to the classroom by the teachers who are present at story time? These questions form the basis for this research.

Research Questions
- How does the use of "thinking maps" affect a student's enjoyment of story time, which is a precursor of a student's enjoyment of reading?

- Subsidiary questions: Will students begin to determine by themselves which map(s) can be used to illustrate thinking about the story? To what degree do teachers (who are present during story time) show an interest in the maps and actually use them in their classrooms?

Literature Review
The term "Thinking Maps" was first used by David Hyerle in 1988 to describe eight different ways to visualize thinking. They can be used across the curriculum. This project will focus on their use with stories that are read aloud to kindergarteners and first graders. The kinds of maps and their uses are listed below:
1. Circle Map. Used for brainstorming and showing prior knowledge about something.
2. Bubble Map. Used for describing people and things.
3. Double Bubble Map. Used for comparing and contrasting.
4. Tree Map. Used for classifying and grouping.
5. Brace Map. Used for analyzing structure
6. Flow Map. Used for sequencing.
7. Multi-Flow Map. Used for cause and effect.
8. Bridge Map. Used for analogies.

The term "Thinking Maps" and the graphic forms of the maps are registered trademarks of a company called Innovative Sciences, Inc. A two-day training workshop is required for teachers and principals who wish to implement the program.

Dr. Hyerle is also the editor of <u>Student Successes with Thinking Maps: School-Based Research, Results, and Models for Achievement Using Visual Tools</u> which highlights research relating to reading and writing scores of students using thinking maps. The book is a series of chapters written by a variety of educators who believe that use of the maps have caused standardized reading and writing scores to increase dramatically across the board for all students. Several of the studies dealing with schools whose students fall below the poverty level, and/or use English as their second language, have shown amazing growth. I could find no studies dealing with the attitudes of young children who were exposed to thinking maps as they related to stories read to them. In a time when reading seems always to be tied to some goal or another (whether it be higher test scores, better grades, or more Accelerated Reading points), I am curious to find out if reading for the pure joy of reading is heightened by visual representations of discussion of the book or if it is lessened by yet another strategy to "show the work."

General Design of Investigation

- Field notes/observation records
  Teachers will be asked to record observations of students during both story time and mapping activity. They will be asked to note any differences in attention and attitudes during the two activities. The librarian will also record her impressions of the two activities after the class leaves. This will give two different perspectives of enjoyment and attention displayed by the students.
- Attitude Scale
  Students will be given a simple scale to mark showing if they preferred story time with maps, without maps, or if they made no difference. Three faces could be used to symbolize the choices: smiling face, frowning face, and neutral face. These questionnaires could be used at both the middle and the end of the research. This will be an easy assessment of student feelings toward the use of maps as part of story time.
- Anecdotal reports
  Five and six-year-olds are famous for "telling it like it is." Although they may not be able to express their feelings in writing, they are unequaled in expressing them orally in unusual and creative ways.
- Questionnaires
  Teachers will be asked to answer two questions after the project is completed: Did they continue to use story maps in their classroom and, if so, were the students eventually able to determine the kind of map(s) they might use with a story? This is a simple way to measure both any carryover of the mapping activity and the ability of young students to choose the correct map(s) for the story.

After data has been collected, each source will be analyzed according to their individual purposes.

- The field notes will be gathered and read by grade level, and will be categorized according to positive and negative attitudes toward the use of maps during story time.
- The attitude scales will be grouped by grade level and tabulated according to the three possible personal attitudes toward the use of the maps with story time: likes, dislikes, makes no difference. Any changes between the scales collected at the midpoint of the project and those collected at the end will be noted.
- Anecdotal reports will be gathered and categorized as either positive or negative.
- Questionnaires will be tabulated according to number of teachers using maps in classroom vs. those who do not, and number of teachers who had

students who were able to determine the kind of map(s) that could be used with a story vs. those who had none.

These individual results will then be combined to answer the original research question as well as the two subsidiary questions.

Presentation of Findings

The students, teachers, librarian and the principal are all stakeholders in this action research project, and all should be informed of the result. These results are both qualitative and quantitative. This will be accomplished by the following methods:

- A written report will be submitted to the teachers and to the principal relating the findings of the project. That would include the number of teachers who saw positive attitudes in the students towards the maps; the number of teachers who continued to use the maps in their classrooms; the number of students who said that they enjoyed the maps vs. those who did not; and the number of teachers who saw students able to determine the kind of map(s) to be used for a story vs. the number who did not.
- A large pictograph could be used showing the number of smiling, frowning, and neutral faces for each class. The students could use it to practice their graph-reading skills, and to see that their choices made a difference in the decision to continue or discontinue the use of thinking maps with story time.

Time Line

Since my use of "Thinking Maps" will begin this year, I would like to implement this research as soon as possible. I see no reason why it cannot begin shortly after the beginning of school.

August 15-19, 2005	Speak with principal and get permission to undertake action research project.
August 22-26, 2005	Speak with kindergarten and first grade teachers about the project and ask for their help with observation notes and anecdotal data.
August 29-Sept. 2, 2005	Send home permission letters allowing students to participate in project.
Sept.12-16,2005	Begin adding map activity to story time.
Dec. 12-16, 2005	Explain and administer attitude scale to students.
Jan. 9-13, 2006	Resume story time with maps. Ask teachers if they have used maps in classroom and if students are ever able to choose an appropriate map for a story.
May 1-5, 2006	Administer attitude scale to students for second evaluation

May 8-12, 2006	Give questionnaire to teachers and collect observation notes and any anecdotal data.
May 15-19, 2006	Program ends. Collect questionnaires, analyze data, make pictograms for kindergarteners and first graders who participated in study and post in hallway.
May 22-26, 2006	Prepare and give final report to principal and teachers.
Summer, 2006	Make decision whether or not to continue use of "Thinking Maps" with library story time

Much of the work involved in this project is ongoing and fits into time now available. The chance to work with the teachers involved is a step toward collaboration and can be accomplished fairly easily since the library is located in the same hall as these classes. After the first meeting when the project is explained, ongoing planning is rather informal. Most of the time needed for this project occurs at the end of the year. Since book circulation stops the last two weeks of school, time for analysis and reports should be more readily available.

Conclusion

After speaking with the principal and obtaining permission for this action research project, I will plan to meet with kindergarten and first grade teachers and discuss the project with them. With the advantage of knowing that the principal supports the use of "Thinking Maps" in the classroom, I feel like this collaborative research project is off to a good start. The results will give us some insight into how students react to listening to stories vs. listening to stories with an added agenda.

Bibliography

Hyerle, David, ed. Student Successes with Thinking Maps: School-Based Research, Results, and Models for Achievement Using Visual Tools. Thousand Oaks, CA: Corwin Press, 2004.

"Research Highlights from Student Successes with Thinking Maps." Designs for Thinking. 26 Jul 2005.
<http://www.mapthemind.com/student_successes/student_successes.html >.

"About Us." Thinking Maps, Inc. 26 Jul 2005.
<http://www.thinkingmaps.com/htabout.php3>.

Sample Central Questions for Action Research

Individual Needs: Will the use of the double-entry journal as a note-taking tool improve Ben's comprehension of informational texts?

Instructional Needs: Why are students in dual-language classes outperforming students in traditional one-language classes? How will the creation of a "student collection development team" effect the circulation of print materials in my library?

School Needs: How can I implement a Reading Buddies program for struggling elementary and high school students that will improve their reading skills and create a positive self-image? How can I make the transition to a flexible schedule easier for teachers?

School and Community Needs: How can the school library collection reflect the ethnic and religious demographics of the community? How can the school community cultivate a partnership among parents and the local community service groups that will encourage parental involvement in the education of their children?

School Educational Policy Needs: What incentives can the school district use to encourage library media specialists and teachers to seek National Board Certification? Will professional development and mentoring in technology improve classroom technology integration throughout our school district?

School and Society Needs: How are adolescent boys' reading preferences different from adolescent girls' reading preferences?

Characteristics of a Good Central Research Questions

Good questions are
- supportive of the school mission,
- concise and without jargon,
- meaningful,
- manageable,
- answerable,
- focused,
- challenging, and
- authentic.

Some Tools for Data Collection

Existing Data: budget figures, standardized test scores, demographics, memos, minutes of meetings

New Data: questionnaires, surveys, interviews, attitude scales, observational checklists, time on task charts, inventories, mapping (e.g., collection mapping), case studies, anecdotal notes

Artifacts: portfolios, journals, learning logs, quizzes and tests, photos, videos, audiocassettes

Data Collection Concepts

Triangulation: Multiple data collection strategies help action researchers view the problem from different points of view. It is recommended that researchers use at least three different methods for gathering data.

Redundancy: This is the point of data saturation. Repetition of data indicates that there is no need to gather more data.

Some Strategies and Tools for Data Analysis

Arranging Data: charts, graphs, outlines, graphic organizers, diagrams, maps, flow charts

Looking for Patterns: abstracting, summarizing, reflecting, comparing and contrasting, noting contradictions, noting what is confirmed and unconfirmed, noting the anticipated and unanticipated, recognizing inconclusive data

Involving Stakeholders and Independent Observers: conferring, consulting, and validating with colleagues and students; using independent observers for peer review

Online Resources

http://gse.gmu.edu/research/tr/index.shtml
"Action Research as a Framework for School Improvement" from the South
Florida Center for Educational Leaders.   Background material on action research
and examples of schoolwide models.

http://www.madison.k12.wi.us/sod/car/carhomepage.html
"Classroom Action Research" from the Madison (WI) Metropolitan School
District. Helpful hints for each stage in the action research process.

http://mypage.iusb.edu/~gmetteta/Classroom_Action_Research.html
"Classroom Action Research Overview" by Gwynn Mettetal, Professor of
Educational Psychology, School of Education, Indiana University South Bend.
An overview that includes a comparison/contrast of action research and formal
research.

http://gse.gmu.edu/research/tr/index.shtml
"Teacher Research" from the Graduate School of Education at George Mason
University. A step-by-step approach to applying the teacher research process,
another name for action research. An excellent "tutorial" for those who want to
design an action research proposal.