

ASSESSING THE EFFECTIVENESS OF MESSAGE BOARDS FOR STRENGTHENING LITERACY

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ABSTRACT

The purpose of this study is to determine whether the use of virtual-literature circles would be beneficial to helping students understand and respond to literary texts. The idea for this proposal came from a report on a study carried out between 1998-2001 on the use of message boards as virtual-literature circles to help strengthen the literature skills of elementary school students. The study will compare the complexity of responses to text passages given by students using message boards as virtual-literature circles, and students participating in traditional (offline) discussion circles and writing journals. The study will also compare the effectiveness of using specifically worded prompts to elicit responses, to the use of open-ended prompts. Finally, the study will compare the enthusiasm levels of students participating in virtual-literature circles to those of students participating in traditional (offline) literature circles.

INTRODUCTION

Matt Thomas and David Hofmeister reported in 2001 on two studies that were conducted to assess the effectiveness of using virtual-literature circles to promote literacy amongst elementary

school students. The first study showed no significant differences between the length and complexity of student responses to literary texts of students using the virtual-literature circles, and students participating in traditional literature circles (Thomas and Hofmeister, 2001).

A second study was carried out to determine whether the use of carefully crafted prompts would elicit more complex student responses amongst students participating in virtual-literature circles. The principle behind this was the idea of “if you want something, just ask for it,” (Thomas and Hofmeister, 2001). It was theorized that if you give students specifically worded prompts, then the responses of students to the text would be more carefully focused, and detailed. This study demonstrated a significant difference between the complexity of student responses based on the type of prompt used.

Goals and Predictions

Further research needs to be done to determine whether the combination of using virtual-literature circles and carefully crafted prompts would produce significant differences in student responses to literary texts than would the use of traditional literary circles. Research is also needed to determine whether the use of virtual-literature circles would increase student enthusiasm levels towards the study and discussion of literary texts. It is anticipated that the use of online message boards to facilitate virtual literature circle forums will result in an increase in the level of student enthusiasm towards participating in the discussion of text passages. It is also anticipated that the combined use of virtual literature circle forums and specifically crafted prompts will elicit more complex student responses to assigned reading passages.

Operational Definitions

Mode of participation: enrollment in a virtual or traditional literature circle.

Virtual-literature circle: the use of an online message board to respond to and discuss the literary text (Thomas and Hofmeister, 2001).

Traditional literature circle: the use of in-person group discussion sessions, and pen-and-paper to produce responses to the literary text (Daniels, 1994).

Type of prompting: the use of either a general prompt, such as “Respond to Chapter 1 of the text,” or a specifically worded prompt, to elicit student responses.

Complexity of student responses: the length of responses, and the degree to which the response demonstrate higher order thought and understanding of the literary text, as determined using an evaluation rubric (Thomas and Hofmeister, 2001).

Level of student enthusiasm: students’ eagerness to participate in the study and discussion of the literary text, as determined using a qualitative post-test.

Background

Constructivist theory (*sources*) is at the core of the idea of literature circles. Constructivist theory suggests that students actively apply knowledge and skills to help them interpret and incorporate new information. Working in isolation, a student’s ability to assimilate new information is limited by such factors as resources, innate abilities, and prior knowledge. Working collectively, it is believed that students can enhance the learning experience by drawing upon each others’ strengths and weaknesses, and constructing more complex meaning out of information.

Harvey Daniels (Daniels, 1994) describes the improvements to certain literacy outcomes that can be achieved by using literary circles. The process basically involves grouping students together, allowing them to select from a number of books, and having the groups meet to discuss the books once each member has read a pre-assigned number of pages. The students work together to build their collective understanding of the passages they read, while the teacher simply acts as a facilitator for the discussions, keeping students on task, and helping to resolve disputes. Journal writing will be included in the literature circle activities in this study, as a means to record student responses to these discussions, and to determine the complexity of their responses, and understandings of the texts.

In their study report, Thomas and Hofmeister (Thomas and Hofmeister, 2001) describe anecdotal observations that students find message boards to be “unique web-based forums to engage in asynchronous discussions with other students.” The idea was to determine whether using message boards as a forum to facilitate literature circle activities would increase student participation, and the complexity of their responses to assigned reading passages (Thomas and Hofmeister, 2001). The initial phase of their study found no significant differences in the responses of students participating in traditional literature circles and those participating in virtual literature circles (Thomas and Hofmeister, 2001). A second phase of the study was carried out to determine if the use of specific prompts by teachers in virtual literature circles would elicit more complex student responses. This phase demonstrated significant differences in the responses of students receiving general prompts, and students receiving specific prompts (Thomas and Hofmeister, 2001). This proposed study expects to replicate these results, as well as to demonstrate that the incorporation of message boards as a forum for literature circles, with the use of specific teacher prompts, will result in greater complexity of student responses than will such strategies in traditional literature circle forums. It is also expected that students participating in virtual literature circles will respond to discussion of assigned reading passages with more enthusiasm than students participating in traditional literature circles.

METHODOLOGY

Participants

The participants in this study will include approximately 120 seventh grade students (ages 12-13) from either one or two junior high schools in Newfoundland, with approximately 30 students in each of four treatment groups. Seventh grade students will be selected for three main reasons: 1) the results of the study would be more easily generalizable to both elementary and junior high-aged students, 2) the students are more likely to have enough prerequisite computer skills and experience to be comfortable with using message board forums, and 3) the content of seventh grade literature curriculum is flexible enough to allow for integration of new activities, and its thematic nature is conducive to the incorporation of activities involving student discussion of

content and meaning.

Materials

The materials for this study will include novels from the reading list approved for study by seventh grade students under the Atlantic Provinces Education Foundation English Language Arts Curriculum Guide. Which novels are used by each treatment group, or each individual literature circle, should have no significant bearing on the validity of the study results, as all novels on the seventh grade reading list are of similar reading ability level, and complexity of content. This fact should make acquisition of enough novels for all study participants an easier task, as most students will already have copies of at least one or more of the novels from the approved list, and most schools will already have class sets of one or more of the novels from the list.

Notebooks will also be needed for students participating in the traditional (offline) treatment groups. These notebooks will be used as journals, in which students will write their responses to the prompts given to each treatment group following completion of assigned reading segments.

Computer terminals with Internet access will be required for this study. The exact number of terminals will depend on the number of schools from which students are sampled, and upon the method of allocating time for students to access the message boards, and post responses. Access to a school-based computer lab should be sufficient to account for any scenario of time allocation. A school computer lab of approximately 20-30 computers with Internet access would provide enough computers for all students in a particular treatment group to have access for sufficient time during a class session to post responses. Students in the online treatment groups would also be able to use the terminals in a school computer lab to post to the message boards outside of class time.

A computer software package such as WebCT (Web Course Tools) will be needed to create the message board forum. WebCT is user-friendly, and would allow students easy access to the

message board to post responses after assigned readings. It would also allow students to view the postings of other members of their treatment group, thus facilitating discussion of assigned reading passages. WebCT would also enable the teacher to post the required promptings for each treatment group, and the software package comes with numerous tools for teachers, enabling them to monitor student responses, and to record the times and frequencies of responses. The use of a package such as WebCT would also simplify the matter of facilitating access to message boards, as the software package would need only be installed upon one administrative computer terminal. Access to the message boards would be facilitated through the Internet.

Materials needed for the pretests required for this study would include paper and pens. A pretest of enthusiasm, using a Likert Scale (source), would be printed and distributed to students, then recollected. Pretests for complexity of student responses would require an unseen passage from an approved seventh grade literature textbook, which would be photocopied and distributed to all students in all treatment groups. Loose leaf paper could then be used, with pens, for students to write a response to the passage, given a standard (general) prompt. Similar materials would be needed to conduct the post-tests for enthusiasm, and for complexity of responses. A single sheet survey, using a Likert Scale, would be distributed to students for the post-test of enthusiasm, then recollected. Loose-leaf paper would suffice for the post-test of complexity of responses. No new reading material would be needed for this post-test, as students would be asked to respond to the texts used during the treatment phase of the study. Students in the online treatment groups would again require access to computer terminals, where they would post their responses to the post-test of complexity of responses.

In addition, a statistical software package such as *SPSS* (Statistics Package for the Social Sciences) will be needed for analysis of codified responses to the Likert scale surveys used for the pretests and post-tests of student enthusiasm.

Research Design

Hypotheses

1. Students receiving specific, constructive prompts will demonstrate greater complexity in their responses to literary texts than students receiving general (or non-directive) prompts.
2. Students participating in virtual-literature circles will demonstrate greater complexity in their responses than students participating in traditional literature circles.
3. Students participating in virtual-literature circles will demonstrate increased enthusiasm towards studying and discussing literary texts over students participating in traditional literature circles.

Operational Definitions

Mode of participation: enrollment in a virtual or traditional literature circle.

Virtual-literature circle: the use of an online message board to respond to and discuss the literary text (Thomas and Hofmeister, 2001).

Traditional literature circle: the use of in-person group discussion sessions, and pen-and-paper to produce responses to the literary text (Daniels, 1994).

Type of prompting: the use of either a general prompt, such as “Respond to Chapter 1 of the text,” or a specifically worded prompt, to elicit student responses.

Complexity of student responses: the length of responses, and the degree to which the response demonstrate higher order thought and understanding of the literary text, as determined using an evaluation rubric (Thomas and Hofmeister, 2001).

Level of student enthusiasm: students’ eagerness to participate in the study and discussion of the literary text, as determined using a qualitative post-test.

Sampling Method

The sample would initially be selected, for logistical reasons, by clustering (Bieger and Gerlach, 1996, pp. 97-98; Leedy and Ormrod, 2001, pp. 217-218). Four intact classes of approximately 30 students would be selected to participate in the study. Students in these classes, and their parents, would be informed of the nature of the study, and given the opportunity to consent or decline to participate, and to withdraw at any time.

Distribution of participants between the four study groups could be done from these four clusters by simple random assignment, or each cluster could be selected to act as an intact study group. (Simple random assignment would be preferable, if logistics allowed.)

The study would utilize a factorial design (Bieger and Gerlach, 1996, pp. 56-59; Leedy and Ormrod, 2001, pp. 242-245). There would be four study groups: an online group with standard (or general) prompts; an offline group with standard (or general) prompts; an online group with specific (or treatment) prompts; and an offline group with specific (or treatment) prompts.

Each group would be administered a pretest for enthusiasm, as well as for complexity of responses. Observations of student responses would be made during the course of the study. A post-test of student enthusiasm would also be administered. The study's factorial design is depicted in Figure 1.

Figure 1: Factorial Research Design

(Bieger and Gerlach, 1996, pp. 56-59; Leedy and Ormrod, 2001, pp. 242-245)

	X_1	X_2
Y_1	O_1, O_5, O_9, O_{13}	O_2, O_6, O_{10}, O_{14}
Y_2	O_3, O_7, O_{11}, O_{15}	O_4, O_8, O_{12}, O_{16}

Where:

X_1 = online participation (virtual-literature circle)

X_2 = offline participation (traditional literature circle)

Y_1 = use of general prompts

Y_2 = use of specific prompts

O_1, O_2, O_3, O_4 = enthusiasm pretest administered to each study group

O_5, O_6, O_7, O_8 = pretest of complexity of student responses

$O_9, O_{10}, O_{11}, O_{12}$ = observations of student responses to discussion prompts

$O_{13}, O_{14}, O_{15}, O_{16}$ = enthusiasm posttest administered to each study group

Variables

Independent Variables:

1. Mode of participation (as per operational definitions listed above).
2. Type of prompting (as per operational definitions listed above).

Dependent Variables:

1. Complexity of student responses (as per operational definitions listed above).
2. Level of student enthusiasm (as per operational definitions listed above).

Instrumentation

Instrumentation for this study will include written surveys, written work, message board postings, and time stamping. Written surveys, using a Likert Scale, will be used as instruments for the pretests and post-tests of student enthusiasm. Written work will be used as an instrument for collecting data on complexity of student responses for students in the traditional (offline) treatment groups, during the treatment phase. It will also be used as an instrument for the pretests of complexity of student responses for all treatment groups, and for the post-test of complexity of student responses for students participating in the traditional (offline) treatment groups. Message board posting will be used as instruments for the collection of data on complexity of student responses during the treatment phase for students in the virtual (online) treatment groups, as well as for the collection of data for the post-tests of complexity of student responses for students in the virtual (online) treatment groups. Time stamping will be used as an instrument to measure times and frequencies of student responses for students participating in the virtual (online) treatment groups. In addition, written responses submitted by students in the traditional (offline) treatment groups will be time stamped by the teacher, for use as an

instrument to measure time and frequency of student responses.

Procedure

The procedure in this study will resemble that used by Thomas and Hofmeister (Thomas and Hofmeister, 2001), with some amendments to allow for the examination of additional problems. Observations needed to carry out this study would include pretests of enthusiasm and of complexity of student responses, observations of students' actual responses while participating in the online and offline literature circles, a post-test of student enthusiasm, and a post-test of complexity of student responses.

Pretesting

The pretest of student enthusiasm could easily be administered in the form of a survey using a Likert scale (Crocker, 1998). An example of a survey question to gauge student enthusiasm could look like:

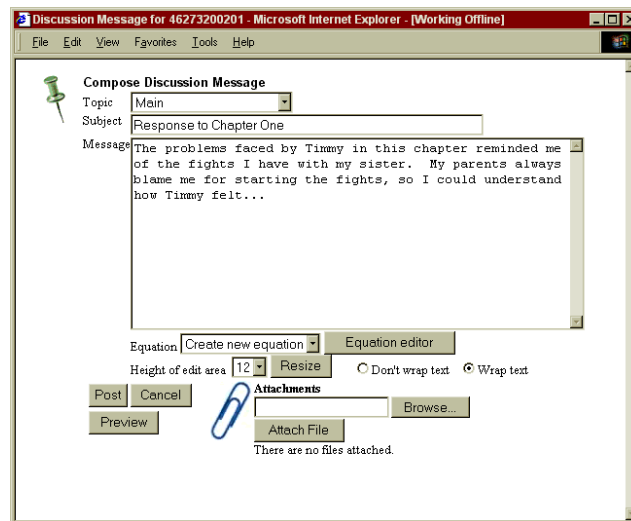
Statement:	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
I enjoy discussing my thoughts and feelings about things I have read.	5	4	3	2	1

The pretest of complexity of student responses will involve providing students in all treatment groups with copies of a short (1-2 page) unseen passage from an approved seventh grade literature textbook. Students would be asked to read the passage in class. They would then be asked to write their name on the top of a sheet of loose leaf paper, and to write a response to the passage on that sheet, which would be collected at the end of the class by the teacher.

Virtual-Literature Circle Participation:

Participants assigned to the two online groups would participate using a web-based message board application (Thomas and Hofmeister, 2001), such as the Discussion Forum feature of *WebCT*. Through logging on to the message board, students would be informed of the passage from the text assigned for current reading. They would also get their prompt for a response to the passage, and would be able to view the responses of other students, and comment on these responses. Figure 2 shows a typical message board interface, as seen in *WebCT*.

Figure 2: Responding on a Message Board



Traditional (Offline) Literature Circle Participation:

Participants assigned to the traditional (offline) literature circle groups would be given their reading assignments in a weekly handout from their classroom teacher. Participants would meet once or twice a week in assigned groups of three or four members to discuss the passage they have read.

The discussion would be initiated by the type of prompt assigned to each group (either a standard (general) prompt, such as “What did you think of this passage?”, or a specific (treatment) prompt, such as “In what ways were the character’s situation and actions in this passage similar to your own experiences?”)

Following this, they would write out a response to the passage in a journal or notebook, to be collected periodically throughout the study. New responses in the students’ journals or notebooks would be time stamped by the teacher, to verify the time period in which they were completed.

Data Collection Methods

Data for the pretests of student enthusiasm will be collected in the form of surveys, using a Likert scale. Students will be assigned numbers, and their names removed from the surveys to protect their confidentiality and anonymity. These pretests will be administered in class by the teacher, and recollected. They will then be submitted to an independent rater for analysis.

Data for the pretests of complexity of student responses will be collected by the teacher in a similar manner. Again, students’ names will be removed in favor of their anonymous numbers, and the pretests will be submitted to an independent rater for analysis.

Responses submitted by students in the treatment phase of the study will be collected by one of two methods. The responses of students in the traditional (offline) treatment groups will be collected and time stamped by the teacher. Students’ names will be removed, in favor of their number, from their submissions before analysis. This will ensure the confidentiality and anonymity of students participating in the study in these treatment groups. The responses of students in the virtual (online) treatment groups will be time stamped by the WebCT software package, and will be coded by numbers assigned to each student. This will ensure the confidentiality and anonymity of students participating in the study in these treatment groups.

Once the responses have been collected, and the treatment phase of the study completed, an independent rater will examine the responses for each participant, by assigned student number.

Data for the post-tests for student enthusiasm and complexity of student responses will be collected in much the same manner as the pretests for student enthusiasm and complexity of student responses. Again, the names of the students will be removed in favor of their pre-assigned numbers, to ensure the confidentiality and anonymity of the students participating in the study, before the data are submitted to an independent rater.

Expected Timeline

Completion of the pretesting for student enthusiasm and complexity of student responses should take about one class period each. Completion of the treatment and observation of complexity of student responses phase should take about eight weeks, allowing time for students to read sufficient numbers of assigned passages, and to post sufficient numbers of responses. Post-testing for student enthusiasm should take about one class-period, and could be conducted immediately following the completion of the treatment and observation phase. Post-testing for complexity of student responses could be carried out anywhere from one to three weeks following completion of the treatment and observation phase, and should take no more than one class period.

Avoiding Potential Threats to Internal Validity:

(Bieger and Gerlach, 1996, pp. 77-85; Leedy and Ormrod, 2001, pp. 103-105, 230-236)

History:

Random assignment of students from the four clusters into each of the four study groups could help to reduce potential threats posed by the previous experiences, and concurrent history of students involved in the study.

Maturation:

Selecting four clusters of students within the same age group, and minimizing the duration of the research study, could help to reduce the impact of maturation upon the study results.

Testing:

While pretesting may have an impact upon the performance of students participating in the study, the research design calls for pre-testing of enthusiasm and complexity of responses to literature. An unobtrusive pre-test of response complexity, such as the use of previously submitted journal entries, could help to reduce the impact of testing upon the study results.

Instrumentation:

The use of a standardized web-based message board reduces the potential impacts of instrumentation upon the study results for students participating in the online study groups. Teachers or researchers involved in administering the offline traditional literature circles would require training to ensure standardization of treatment applications.

Statistical Regression:

Statistical regression does not pose any significant potential threats with regards to the measurement of student enthusiasm. However, it could have an impact on the study results for the complexity of student responses. This threat could be minimized by excluding the observations for students with extreme scores on the response pre-test, or by ensuring that the study sample is of sufficient size.

Mortality:

Mortality could pose a threat to the internal validity of the study with regards to observations of student enthusiasm levels. Follow-ups with students withdrawing from the study would be recommended to help reduce this risk.

Selection:

The use of cluster groups poses a threat to internal validity, but is necessitated for logistical reasons. Random assignment of students from each cluster to each of the four treatment groups would be recommended to help reduce this risk.

Avoiding Threats to External Validity:

(Bieger and Gerlach, 1996, pp. 77-85; Leedy and Ormrod, 2001, pp. 105-106, 174, 210)

Effects of Testing:

As with the impact of Testing on Internal Validity, avoiding pre-tests for enthusiasm cannot be avoided under this research design. This pretest, however, poses little risk to the integrity of the results of the study. The use of a less obtrusive pre-test for complexity of student responses to literature should also be considered.

Multiple-Treatment Interference:

The nature of this study calls for multiple treatments, in that students would be required to submit responses to several literary passages over a period of time. The researcher would be interested in determining whether the different response forums and prompts had a positive or negative affect on student responses and enthusiasm with continued use.

Selection-Treatment Interaction:

Random assignment of students from the four cluster to each of the study groups could help to reduce the impact of interactions between participants and the treatments themselves.

Effects of Experimental Arrangement:

The factorial research design helps to reduce the risks to external validity posed by experimental arrangement. This design allows for a quasi-control group, in that participants would not need to be aware of whether or not their group was participating in the experimental or standardized treatment.

Experimenter Effects:

“Blind” data collection and analysis are possible, given that students must submit written or electronic responses for analysis by the researcher. Interaction with the experimenter poses little threat to the external validity of the study results.

Specificity of Variables:

The operational definitions of the variables involved in this study are generalizable to educational settings and, thus, do not pose a significant threat to external validity.

Ethical Considerations:

(Bieger and Gerlach, 1996, pp. 227-233; Leedy and Ormrod, 2001, pp. 107-111)

A number of ethical issues must be taken into account in any research study. Because this study would involve children in an educational setting, there are some considerations that would be of particular note. These are:

1. Obtaining the informed written consent of the students' parents or guardians, as well as that of the students.
2. Allowing students to withdraw from the study at any time, and insuring the destruction of research materials related to any student who does withdraw from the study.
3. Informing students and their parents of any potential risks associated with participation in the study.
4. Ensuring that the results of participation in the study do not impact upon the academic records of the students involved.
5. Maintaining the confidentiality of data and anonymity students participating in the study.
6. Providing study participants with access to any treatments that prove beneficial, once the study is completed.

Summary

The factorial design of this study is such that it will maximize the internal validity of the test results, as well as the external validity, or generalizability of the results. The design is also such that it minimizes the difficulty of gaining access to participant schools, and students, by using cluster sampling of whole classes, and studying material that is relevant to the current seventh grade English Language Arts curriculum (APEF, 2001). In addition, every effort has been taken to minimize the risks involved for participant students, and to maintain all ethical standards in the research. It is expected that the factorial design proposed for this study will be effective in producing a manageable research scenario, as well as highly valid research results, and an enjoyable research experience for researchers and participants alike.

EXPECTED RESULTS

Data Analysis Methods

Analyzing Student Enthusiasm

“Blind” analysis will be used for the analysis of data collected during all phases of this study. Quantitative statistical methods will be used to analyze the data collected in the pretests and post-tests of student enthusiasm. Student responses on the Likert scale will be codified to analyze the frequency of responses to each question on the survey. *SPSS* (Statistics Package for the Social Sciences) software will be used to analyze the mean enthusiasm levels for students between treatment groups, to determine the variance between groups before the treatment phase of the study, and after treatment, during analysis of the post-test of student enthusiasm. *SPSS* software will also be used to analyze changes in student enthusiasm levels from the pretest to the post-test for student enthusiasm, for each student, and to compare these changes to changes in enthusiasm levels for each treatment group, and for the entire sample.

Criteria for Analyzing Student Responses:

“Blind” analysis will again be used for the analysis of the complexity of student responses. The types of responses given by students, and their complexity, would be ranked according to criteria set out in an evaluation rubric, similar to the rubric used by Thomas and Hofmeister (Thomas and Hofmeister, 2001) in their original study. A copy of this evaluation rubric is included in Appendix 1.

Expected Pretest Results of Student Enthusiasm

It is expected that there will be no significant differences in the pretest results for student enthusiasm between students in each of the four treatment groups. Mean results, overall, are expected to be in the low to moderate range.

Expected Treatment Results for Complexity of Student Responses

Phase 2 of Thomas and Hofmeister's original study (Thomas and Hoffmeister, 2001) noted that complexity of student responses did vary significantly according to the prompt type uses. Significant differences were noted between the use of Constructive and Reconstructive prompts, and between the use of Constructive and Non-directive prompts. The expected outcome for this study are:

1. Students receiving specific, constructive prompts will demonstrate greater complexity in their responses to literary texts than students receiving general (or non-directive) prompts.
2. Students participating in virtual-literature circles will demonstrate greater complexity in their responses than students participating in traditional literature circles.

Expected Post-Test Results for Student Enthusiasm

Students participating in virtual-literature circles will demonstrate increased enthusiasm towards studying and discussing literary texts over students participating in traditional literature circles.

Expected Post-Test Results for Complexity of Student Responses

Students participating in virtual-literature circles with the specific prompt treatment will demonstrate greater complexity of responses on a post-test for complexity of student responses than students in either of the other treatment groups.

Summary

Analysis of the data are expected to demonstrate that the use of message boards as a forum to facilitate literature circle activities will result in an increase in student enthusiasm towards the discussion of literary passages. It is also expected that the use of carefully crafted prompts to elicit student responses to assigned reading passages will result in an increase in the frequency

and complexity of student responses, and, thus, their overall ability to construct meaning out of newly encountered passages in literature.

DISCUSSION

The aim of this study is to determine whether or not the incorporation of multimedia technology, in the form of message boards, would enhance the educational experience of seventh grade literature students. Anecdotal evidence has shown that the use of message boards can be a novel way to engage students in the process of discussing text passages. It is expected that this study will show increased levels of student enthusiasm towards participation in literature circle activities, through the use of message boards as a forum for discussion. These results would confirm the suspicions of Thomas and Hofmeister, as noted in their original study (Thomas and Hofmeister, 2001). It is also expected that this study will show increased complexity of student responses to assigned reading passages when given specific prompts to elicit responses. These findings would add to those of Thomas and Hofmeister in Phase Two of their original study, which showed a significant difference between the complexity of student responses of participants receiving specific prompts, and those of students receiving general prompts to elicit responses (Thomas and Hofmeister, 2001). Phase One of Thomas and Hofmeister's original study did not show a significant difference in the complexity of student responses based solely on a comparison of the mode of participation. However, it is expected that this study will show significant differences based upon this variable.

CONCLUSION

This study aims to demonstrate the effectiveness of using specifically worded prompts at eliciting student responses to assigned reading passages, as well as the effectiveness of engaging students in discussion of reading passages through the use of a message board forum. Such forums could allow greater flexibility for both students and teachers. Students would gain the ability to view and review the responses of their peers, and to post their own responses at their leisure. They would also experience increased enthusiasm towards literary studies, both from the

integration of message board technology as a novel forum, and from ability of the forum to help students overcome anxiety over participation in literature circle discussions, and writing complex responses for submission. The integration of message boards as discussion forums holds many possibilities for teachers as well, including the ability for teachers to engage students outside of class time, as well as to engage students in more than one location, in the discussion of new text passages. This latter scenario has the possibility of allowing teachers in remote locations to share resources, thus improving the overall teaching and learning environment.

REFERENCES

- Barakett, Joyce, and Ailie Cleghorn (2000). *Sociology of Education: An Introductory View from Canada*. Scarborough, Ontario: Prentice Hall and Allan Bacon Canada.
- Bieger, George R., and Gail J. Gerlach (1996). *Educational Research: A Practical Approach*. . Albany, New York: Delmar Publishers.
- Daniels, H. (1994). *Literature Circles*. York, Maine: Stenhouse Publishing Company.
- Crocker, Robert (1998). Survey Research. [Online]. Available at:
<http://webct.mun.ca:8900/45013200201/contents/lecture04.html>
- Leedy, Paul, and Jeanne Ellis Ormrod (2001). *Practical Research: Planning and Design*, 7th Edition. Upper Saddle River, New Jersey: Merrill Prentice Hall.
- Thomas, Matt, and David Hofmeister (2002). "Assessing the effectiveness of technology integration: message boards for strengthening literacy," *Computers & Education: An International Journal*, vol. 38, Jean D.M. Underwood and Eileen Scanlon, Eds. Oxford, England: Pergamon.

APPENDICES

Appendix 1: Criteria for Analyzing Student Responses:

The following is the rubric used by Thomas and Hofmeister in their original study (Thomas and Hofmeister, 2001). The same rubric could be used, or adapted (depending on the grade level studied) for this study.

Cognitive Complexity Rating Scale with Sample Responses

(Thomas and Hofmeister, 2001)

Reconstructive Responses		Constructive Responses	
1	2	3	4
Very simplistic text-dependent response	Text-dependent response	Text-independent response	Text-independent response with complexity
“I thot the book was good and fanny” [sic]	“I thought about how red and shiny the tackle box was”	“When Cyn got her kitten [sic] I thought about the time I got my puppy.”	“When my teacher was reading the book to our class I was thinking that it must not be fare to him because hes allways the one that gets in trobble. And when I was listening to my teacher I was thinking that when I get mad at my sister I’m allways the one that gets in trubble...”

Appendix 2: Informed Consent Form



Informed Consent

Must be returned by October 31, 2002

Please read this document carefully, and ask any questions you may have before agreeing to participate in the study.

Title of the Research:

“Assessing the Effectiveness of Message Boards for Strengthening Literacy”

Background Information:

Procedure:

Risks and Benefits of Being in the Study:

Confidentiality:

Voluntary Nature of the Study:

Ethical Considerations:

Contacts and Questions:

Statement of Consent: