Chapter III: Anticipated Outcomes and Evaluation Instruments

Goals and Expectations

The following goals were projected for this practicum. At the completion of the practicum, students and teachers will be using the technologies available at the school throughout the curriculum. Teachers and students will view technology as an educational tool and embrace its use willingly. Technology will not be viewed with trepidation as a separate entity, but instead, it will be infused into the curriculum effortlessly.

Expected Outcomes

The following outcomes were projected for this practicum:

1. An analysis of the photocopying time logs (see Appendix B) completed in the first month of the practicum and those completed in the last month of the practicum will indicate that the percentage of time the office clerk spends on photocopying materials for teachers out of the total hours she spends photocopying materials for the staff will decrease by at least 40%.

2. An examination of the media center's Bibliofile system will show that 60 out of the 68 teachers will check out at least one type of the hardware and one software item by the conclusion of the practicum.

3. An analysis of a roster checklist of teachers (see Appendix C) using their file folders on the server will show
that at least 60 out of the 68 teachers will use their folders at least once by the conclusion of the practicum.

4. A review of a roster checklist of students (see Appendix D) will indicate that 70% of 1,632 students used their file folders at least once by the conclusion of the practicum.

5. A review of a teacher roster checklist (see Appendix C) of teachers who submit projects on floppy disks will show that 60 out of the 68 teachers will successfully complete one project using each of these software applications: (a) WebWhacker; (b) ClarisWorks (wordprocessing, draw, and slideshow; database and merging; charts and spreadsheet); (c) HyperStudio; and (d) PowerPoint by the conclusion of the practicum.

6. An analysis of a teacher roster checklist (see Appendix C) of teachers who submit application lesson plans will show that 60 out of the 68 teachers will submit copies of lesson plans indicating the use of each of these applications: WebWhacker, ClarisWorks (wordprocessing, database, and spreadsheet), HyperStudio, and PowerPoint at least one time in their curriculum by the conclusion of the practicum.

7. An examination of a teacher roster checklist (see Appendix C) of teachers who complete projects using peripherals will indicate that 60 out of the 68 teachers will successfully complete at least one project using each of these types of peripherals: (a) laser disc player,
(b) scanner, (c) digital camera, and (d) LCD projector or panel by the conclusion of the practicum.

8. A review of a teacher roster checklist (see Appendix C) of teachers who complete the peripheral lesson plans will show that 60 out of the 68 teachers will submit copies of lesson plans indicating the use of each of these peripherals: (a) laser disc player, (b) scanner, (c) digital camera, and (d) LCD projector or panel at least one time by the conclusion of the practicum.

9. An analysis of a teacher roster checklist (see Appendix C) for teachers who scheduled their classes to use the computer lab rooms will show that 50 out of the 68 teachers will use one of the computer lab rooms at least once by the conclusion of the practicum.

10. An analysis of a teacher roster checklist (see Appendix C) for Internet lesson plans will show that 60 out of the 68 teachers will submit at least one lesson plan indicating that they have located and implemented an Internet classroom project by the conclusion of the practicum.

11. An examination of a teacher roster checklist (see Appendix C) for probeware will show that 8 out of the 11 science teachers will successfully complete at least one lab using a pH probe and at least one lab using a temperature probe by the conclusion of the practicum.

12. A review of a teacher roster checklist (see Appendix C) for probeware lesson plans will indicate that 8 out of the 11 science teachers will submit a copy of lesson
plans indicating the use of a pH probe at least one time and a temperature probe at least one time by the conclusion of the practicum.

13. An analysis of a teacher roster checklist (see Appendix C) for e-mail will show that 60 out of 68 teachers will respond by e-mail to an e-mail message sent to them by the technology coordinator.

14. A comparative analysis of the total scores on the technology attitudinal questionnaires (see Appendixes E and F) will show that 60 out of the 68 teachers will earn a higher score at the end of the practicum than the one earned in the beginning.

15. A review of a student roster checklist (see Appendix D) for a HyperStudio presentation will indicate that 70% of the 1,632 students will complete at least one individual or group presentation using HyperStudio by the conclusion of the practicum.

16. An examination of a student roster checklist (see Appendix D) for a report done using the ClarisWorks wordprocessing component will reveal that 70% of the 1,632 students will prepare at least one written report using ClarisWorks as part of an interdisciplinary unit by the conclusion of the practicum.

Measurement of Outcomes

Outcome 1. One of the office clerks is responsible for photocopying materials for the staff. She keeps a daily photocopying time log (see Appendix B) to record the time she
spends photocopying materials for teachers, and the time she spends photocopying materials for administration and support staff. The writer will first total the number of hours the office clerk spent in the first month of the practicum photocopying materials for the staff inclusive of teachers, administration and support personnel. Then the writer will total the number of hours the office clerk spent photocopying materials for teachers in the first month of the practicum using the photocopying time logs (see Appendix B). A percentage of time spent on photocopying materials for teachers will be determined by dividing the total hours spent photocopying material for the teachers by the total hours spent photocopying materials for the entire staff. The same exact procedure will be repeated using the photocopying time logs completed by the office clerk in the last month of the practicum. The difference in percentages of time spent photocopying materials for teachers during these two time periods will be determined by subtracting the percentages of time spent photocopying materials for the teachers during the first month from the time spent photocopying materials for the teachers during the last month of the practicum. The difference will show a decrease of at least 40% in time spent photocopying materials for teachers by the conclusion of the practicum.

Outcome 2. An examination of the media center’s Bibliofile system will show that 60 out of the 68 teachers will check out at least one type of hardware and one software
item by the conclusion of the practicum. This does not include the TVs, VCRs, and overhead projectors that are already located in each classroom as basic equipment. The media center has a Bibliofile system that keeps records electronically of all the books, audio-visual equipment, materials, and software that students and teachers check out.

Outcome 3. The writer will establish a folder for every teacher on the school's server. She will examine these electronic folders at the conclusion of the practicum. The writer will then complete a teacher roster checklist (see Appendix C) to determine if 60 out of the 68 teachers used their folders at least one time to store information such as (a) assignments, (b) projects, (c) lesson plans, and (d) appointments.

Outcome 4. The writer will establish a folder for every student on the school's server. She will examine these electronic folders at the conclusion of the practicum. The writer will then complete a student roster checklist (see Appendix D) to determine if 70% of the 1,632 students used their folders at least one time.

Outcome 5. The teachers will save to disk, projects they completed for each of these applications: (a) ClarisWorks (wordprocessing, draw, and slideshow); (b) ClarisWorks (database and merging); (c) ClarisWorks (charts and spreadsheets); (d) HyperStudio; (e) WebWhacker; and (f) PowerPoint. These applications were chosen because they are easily adaptable to curricular use. The writer will review
the disks and complete a teacher roster checklist (see Appendix C) to determine if 60 out of the 68 teachers successfully completed a project for each application that they can use with their students as part of the curriculum by the conclusion of the practicum.

Outcome 6. The teachers will submit copies of lesson plans using each of these applications: (a) ClarisWorks (wordprocessing, draw and slideshow); (b) ClarisWorks (database and merging); (c) ClarisWorks (charts and spreadsheets); (d) HyperStudio; (e) WebWhacker and (f) PowerPoint. The writer will examine these lesson plans evaluating them for functionality and integration into the curriculum. The writer will complete a teacher roster checklist (see Appendix C) indicating the teachers who completed the lesson plans, and will then analyze the checklist to determine if 60 teachers out of the 68 completed the lesson plans.

Outcome 7. The teachers will complete and submit projects that they can use in their classroom that used each of these peripherals: (a) scanners, (b) LCD panels and/or projectors, (c) laser disc players, and (d) digital cameras. The writer will examine the projects and complete a teacher roster checklist (see Appendix C) to determine if 60 out of the 68 teachers successfully used these peripherals to create a product to enhance instruction.

Outcome 8. The teachers will submit lesson plans using (a) scanners, (b) LCD panels and projectors, (c) laser disc
players, and (d) digital cameras. The writer will evaluate the lesson plans and complete a teacher roster checklist (see Appendix C) indicating the teachers who developed lesson plans that illustrate the integration of the peripherals into the curriculum to enhance instruction.

Outcome 9. Teachers will sign log books to use either the large computer lab or the smaller computer access lab. The writer will keep these logbooks in a file holder attached to her office door. Each department will be assigned a day of the week for using the lab rooms. However, if the lab rooms are not signed for by Friday of the preceding week, then teachers from any department may sign up their classes to use the lab rooms instead. The writer will review these logs and complete a teacher roster checklist (see Appendix C) to determine if 50 of the 68 teachers have used one of the computer lab rooms at least once by the completion of the practicum.

Outcome 10. The teachers will submit lesson plans that indicate they have located at least one Internet classroom project that they are going to implement into their curriculum. This can be an actual Internet project such as MayaQuest or Jason Project, or this can be a lesson plan involving student research using the Internet. This can also be a lesson presentation utilizing various Web sites. The writer will examine the lesson plans and observe the teachers while they are implementing it in their classes. After each observation, the writer will note the completion on a teacher
roster checklist (see Appendix C) that will indicate that 60 out of the 68 teachers completed an Internet lesson plan and implemented it successfully.

Outcome 11. The science teachers will perform a lab using a pH probe and another lab using a temperature probe. The writer will observe and evaluate the teachers as they are completing these labs. The writer will use a teacher roster checklist (see Appendix C) to record the completion of the labs. At the conclusion of this practicum, an analysis of this checklist will be made that will indicate that 8 out of the 11 science teachers completed the two-probeware labs.

Outcome 12. Science teachers will submit at least one lesson plan that indicates the integration of a temperature probe into the curriculum and one lesson plan that indicates the integration of a pH probe into the curriculum. The writer will review these lesson plans and will complete a teacher roster checklist for each type of probeware lesson plan (see Appendix C). An analysis of these checklists will show that 8 of the 11 science teachers will have successfully designed a lesson incorporating the integration of a pH probe and a lesson incorporating the integration of a temperature probe.

Outcome 13. The writer will send an e-mail message to each teacher requiring a response by e-mail. The teachers will write the response and send it via e-mail to the writer. The writer will then use a teacher roster checklist (see Appendix C) to record the receipt of the responses. An examination of the checklist will determine if 60 out of the
68 teachers successfully received and read an e-mail message, and wrote and sent an e-mail message.

Outcome 14. The writer will distribute an attitudinal technology questionnaire (see Appendix E) to each teacher at the beginning and again at the conclusion of this practicum. The writer will create a scoring key (see Appendix F) by assigning a numerical value ranging from a (-2) to a (+2) to each of the qualitative values. A total score will be tabulated for each questionnaire completed during the first month of the practicum and for each questionnaire completed during the last month of the practicum. The difference between the total score for each teacher earned on the questionnaire completed at the beginning of the practicum and the total score earned by each teacher at the conclusion of the practicum will be calculated. These scores will then be entered into a table (see Table 1). An analysis of the data will determine if 60 out of the 68 teachers will have higher total scores at the end of the practicum than at the beginning. Achievement of the outcome will indicate that the staff feels more proficient and comfortable about using technology in their curriculum areas at the conclusion of the practicum than when the writer initiated the practicum.

Outcome 15. The students will prepare an individual or group HyperStudio presentation as part of their Invent America assignments that are being required in science classes. The students will share the presentation with their science class, and the science teacher will record their
completion on a student roster checklist (see Appendix D). The writer will analyze the checklists submitted by each science teacher to verify that 70% of the 1,632 students successfully completed a HyperStudio presentation.

Outcome 16. The students will be required to prepare a report in their language arts classes using the wordprocessing component of ClarisWorks. The language arts teachers will evaluate the reports and will record student completion of the reports on a student roster checklist (see Appendix D). The writer will analyze the checklists submitted by each language arts teacher to verify that 70% of the 1,632 students successfully completed a report using ClarisWorks.