***Riverdeep* Software Usage of New Hanover County Schools Secondary Teachers**

by

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Executive Summary

The New Hanover County Public Schools Technology department maintains the network, software, projects, technical support, and staff development for all the schools in the county. The installation and use of the networked *Riverdeep* software began at the beginning of the semester in all five high schools. Currently only twenty percent of New Hanover County secondary Math, Science, and English teachers are integrating *Riverdeep* software in their classrooms. This information is based on lesson plans submitted by the teachers, observations by administration, computer lab schedules, surveys, and interviews.

The goal of the technology department is for one hundred percent of New Hanover County secondary Math, Science, and English teachers to integrate the use of this software to supplement their instructional methods. This goal is part of New Hanover County's mission to integrate technology skills into the total learning environment. Teachers will make use of various programs and teaching strategies to increase technology integration in accordance with the NC Standard Course of Study.

Currently only twenty percent are using the *Riverdeep* software. Instructional technologists agree that the problem originated from the training offered to teachers. *Riverdeep* training conducted at the beginning of the school year focused mainly on the technical aspects of the software. Teachers learned how to operate the software but did not receive training on integrated lesson plans. Due to the low number of teachers using the software in each school, it is perceived by other teachers that the software is not useful or beneficial. Teachers also do not have much time available to create new units to include the technology.

In order to increase the use of the software the technology department must redesign the training materials to include successful lesson plans that classroom teachers can use. The instructional technologists' training will be offered and delivered by innovative teachers who have had success in the classroom with this software. Training times will vary so

that teachers will have options in order to attend a session that best fits their schedules. The technology department should provide one day “mini-sabbaticals” for teachers who are opinion leaders and are interested in designing units that their teams can use to integrate the *Riverdeep* software. These interventions eliminate time constraints and negative perceptions of using this software. Once the teachers have completed a new training session, they will have a packet of resource materials to help guide the process of implementation. Included in the packet are lesson plans, handouts, and technical guides.

Problem Statement

The New Hanover County Technology Department installed the *Riverdeep* software into the high schools' network and provided training for teachers. The training was developed by a group of software experts from the *Riverdeep* Company. Classroom teachers gathered in the technology department labs and received training from *Riverdeep* instructors. After several months of school, the technology department identified only twenty percent of New Hanover County secondary Math, Science, and English teachers that are currently integrating *Riverdeep* software in their classrooms. This information is based on lesson plans submitted by the teachers and computer resource teachers, observations of classrooms and lab activities by administration, computer lab schedules, surveys, and interviews of the faculty. The goal of the technology department is for one hundred percent of New Hanover County secondary Math, Science, and English teachers to integrate the use of this software to supplement their instructional methods. Computer lab schedules and lesson plans submitted will represent the percentage desired.

By increasing the use of the software, technology integration increases within the curriculum in the high schools. Using new software programs in these schools to increase technology integration in accordance with the NC Standard Course of Study, provides a model for more programs to follow. A success rate with *Riverdeep* in the high schools will provide an example of how middle and elementary schools can also accomplish this goal with innovative software tools.

Proposed Solution

An instructor-led *Riverdeep* Software Integration training is recommended. This new set of training goes beyond the Introductory *Riverdeep* session. The introductory session only focused on the operation of the software. Software *integration* will be the primary objective or goal for the new session. The integration will include materials that each teacher can begin using immediately in their lessons using *Riverdeep.*

Integration of the software should be the focus when designing a new training session. The major difference in designing this training and the previous training is that the instructional technologists and computer resource teachers should collaborate with the successful classroom users of *Riverdeep*. Collaboration would add components to the training materials and delivery such as sample lesson plans, successful classroom activities, and hands on demonstrations of actual lessons. Classroom teachers should conduct the learner analysis and determine strategies for instructional delivery to other potential *Riverdeep* users. Once the analysis has been done, collaborating teams would begin designing the training session.

The proposed *Integration* training will give teachers actual lessons so they do not have to spend additional time creating them. Classroom teachers who use the software will demonstrate how the lessons can be carried out in various classroom situations. The training will include success stories of how the teachers were able to teach their NC standard curriculum by using the software. The experiences and hands on activities that will be shared will provide teachers with reassurance that the Integration can be done in their own classrooms.

The completion of the sessions would meet the needs of the classroom teachers who currently do not use the software. Sessions would be offered at every school site for easy access to the trainees. Primary personnel needed for this new training already exists within the schools and technology department. Hardware and software needs are minimal because they are already operational.

Extended support will be provided by the CRT and classroom teachers will ensure that trainees continue to share lessons and successes with the *Riverdeep* software. A newsletter in circulation among the high school will provide teachers with information of the amount of software usage in the schools.

Review of Information on Delivery System

General Information

1. **Information about instructors:** Instructors will be computer resource teachers and classroom teachers who use Riverdeep software successfully. These instructors will be a part of the instructional design team who writes the instructor and student manuals. The teachers and CRTs are from the high schools who are *Riverdeep* users and will take part in the planning and implementation. These teachers play a key role in the development of the training materials and delivery of the hands on demonstrations of actual lesson plans. Consultations with *Riverdeep* trainers (previous trainers) would be necessary as navigational issues may arise during the planning process.
2. **Information about the managers:** Design and development teams would consist of current school and technology department personnel who have experience in technology staff development, systems analyzing, and resource allocation planning. A project manager should be hired to oversee the entire project.
3. **Information about the equipment and space:** Working networked labs exist in all the high schools in the county system. The maintenance records indicate that little hardware support will be needed to implement this training project. Space is also available due to the current classroom sizes and labs that exist to accommodate them. No school will need to train more than 25 teachers at a time. Budget information is available in Appendix C.

Product List – Print Materials

Instructor's Guide and Training Manual: This manual will include a table of contents for easy navigation. The "How to use this guide" provides explanations to the instructor about each section of the manual. The training logistics section will describe required time and space for the training. Number of participants, materials, length of lessons, and equipment required must also be listed. Training is divided into lessons and the manual provides the format for teaching each lesson. Details included in the guide the presentation such as objectives, time, structured activities, materials, handouts, activities, references, and resource materials. The order of the manual is as follows: Table of Contents, How to Use This Guide, Training Logistics, Lessons, Presentation Guidance by Lessons, References

Instructional Materials for Students: The student manual will follow the format as the instructor's manual. It will only include a Table of Contents, "How to Use This Guide" (modified for students), Lesson Objectives and Activities, Handouts, and Lists of Resources. The order of the manual is as follows: Table of Contents, How to Use This Guide, Lessons, Resource Materials

Awareness Materials – Brochures and PowerPoint Presentation: Brochures distributed within the first month of school will promote the upcoming training to classroom teachers. The brochure will answer key questions such as what is *Riverdeep* and who should it. The brochure should include sample lessons that will be given at the end of each session. A PowerPoint Presentation including screen shot objectives covered by the Riverdeep software and descriptions of what will be included in the training. The presentation must explain benefits of attending the training.

Assessment Tools: Surveys that rate the training must be developed. The trainees will also be assessed after the training is completed. School visits and observations of *Riverdeep* lessons must be conducted. Checklists and evaluation surveys must be created for these visits.

Project Description

This project is comprised of ten phases. Each phase is contains several tasks. Each task is numbered in the description as it is numbered in the charts in each Appendix A. Team members for each task are listed in the appendices and described in the staffing plan in Appendix B. A detailed budget for this project is contained in Appendix C.

Phase 1 - 1) Start Project, 07-22-02 to 08-01-02

2) **Form Planning Team** -Once the front-end analysis is complete, the superintendent of New Hanover County Schools commissions The Technology Department to design and develop a new training for the Riverdeep software. The Technology Department assigns two of its members to head up the project. One of these members is an Instructional Designer. The other will be the project manager. Their first task is decide who needs to be involved in planning this project and design the planning team
3) **Review Existing Training Materials** - The Instructional Designer and the project manager bring in a subject matter expert from the *Riverdeep* Company to review the existing training materials before they meet with the planning team. This will provide information the ID and the project manager information to present to the planning team.
4) **Project Planning Session** – This three day session will take place during late July. This is during the workdays before students begin school, therefore all team members will be able to attend. The task of the team will be to create a rough outline of the project events and time frames. They will also divide the tasks and decide who will need to be involved in each task.

Phase 2 –5) Content Analysis, 08-01-02 to 09-09-02

6) **Learner Analysis -** The Instructional Designer and the Project Manager along with the computer resource teachers will conduct the learner analysis. They will do this by observing and interviewing classroom teachers. This will

provide the team with information they need to develop the content of the new training.

7) **Task Analysis –** At this point the team members know that a discrepancy exists between what is and what should be. They must determine the content needed to close this gap. The information that they have collected about the learners will enable them to complete a task list. This task list will contain the steps necessary to complete the goal.
8) **Write Objectives –** Once the task analysis is complete it will help the team divide the content into units, which will assist them in writing the objectives of the training. The objectives will be written in clear, concise language and will address the problems that are needed to be solved.
9) **Develop Assessment –** Once the objectives are written the team will develop the written assessment from those objectives. They will also decide if there needs to be any performance assessment. If so, they will develop a checklist for that as well.
10) **Develop Instructional Strategies –** The objectives and assessment will provide a base of knowledge for the team that will allow them to determine the instructional strategies needed to achieve the objectives and goal. The instructional strategies will be learner centered.

Phase 3 – 11) Develop First Draft, 09-09-02 to 11-07-02

12) **Develop Instructor's Guide –** This training will eventually be delivered countywide. Therefore, there will be several different instructors. The manual the instructors will use will be very detailed and provide all information needed to conduct the workshop. The Instructors Guide will be divided into three sections, front-end materials, instructional methods, and a reference section. The front end materials will include a table of contents, a "how to use this guide?" section, a topic – by – topic overview, a lesson – by – lesson list of all materials and equipment needed, and a bibliography. The instructional methods section will focus on how the workshop should be

conducted. This section will include a complete copy of the student guide, handouts, and any background readings on content and equipment.

13) **Develop Instructional Materials for Students –** With the instructor guide developed, the team will turn their focus to the student guide. The student guide will be divided into two sections, front-end materials and lesson materials. The front-end materials will include a table of contents, a "how to use this guide?' section, an overview of the content, what is expected of the student, and a glossary of terms. The lesson material will include objectives, a list of materials needed, relevant time consideration, step-by-step instructions for each lesson, and assessments.
14) **Develop Media –** These are the materials that the instructor will need to present the content. They include overheads and a power point presentation.
15) **Formative Evaluation Instruments-** This team will develop questionnaires that will be used to evaluate the first draft of the material. These questionnaires will be used in the three evaluations of the materials. These evaluations are one on one, small group and field trials.
16) **Print First Draft of All Materials-** Once the drafts are complete they must be printed for the one on one evaluations. One copy of the instructors guide with media materials and three copies of the student guide will be needed.

Phase 4 – 17) Conduct Formative Evaluations, 11-07-02 to 11-28-02

18) **One on One Evaluations and Revisions –** Once the materials are printed the Computer Resource Teachers along with the Instructional Designer and Project Manager will conduct the one on one field trials with the target learners who are classroom teachers. During these evaluations the team will be looking for errors in the materials as well as instructional problems. The learners will be observed and interviewed throughout the evaluation. They will provide feedback on content and presentation. Based on the information from these evaluations the writer/editor will complete the revisions necessary

and re-print the materials for the next evaluation. Fifteen copies will be needed.

19) **Small Group Evaluations –** This evaluation will be more focused on how the workshop will actually be conducted. The learners will fill out a formative evaluation questionnaire upon completion of the trial. This evaluation will provide information on timing, sequence of instruction, the success rate of the instructional methods, and any errors in the material that were not detected in the first evaluation. The information collected from this evaluation will also be given to the writer/editor to make revisions. The materials will then be re-printed for the final evaluation before implementation.

20) **Field Trial Evaluations and Revisions –** The final trial of the material will be the most like the implementation of the material. One workshop will be conducted at a school in the county. The learners will evaluate the material on content, instructional strategies, presentation, and look again errors. The learners will complete a formative evaluation questionnaire upon completion of the workshop. This information will be provided to the writer/editor for the final revision. The documents will then be prepared for the final printing.

Phase 5 – 21) Develop Final Draft, 11-28-02 to 12-13-02

22) **Prepare Awareness Materials –**The text for the brochure will answer key questions such as what is *Riverdeep* and who should use it. The brochure includes sample lessons that will be given to the trainees at the end of each session. A PowerPoint Presentation must be created and saved on a data CD for easy transportation. The presentation must explain benefits of attending the training.

23) **Distribute Awareness Materials –** The brochures will be sent to all high schools and teachers in subjects pertaining to *Riverdeep*. PowerPoint CD presentations must be given to the CRT of each school.

24) **Revise Materials –** Based on the formative evaluations and revisions, all materials must be revised at this point to be ready for distribution.

25) **Print Final Draft Material –** All final drafts of manuals and other print material for the workshops must be printed. Print copies will be distributed to each school based on the number of trainees expected to attend training.

Phase 6 – 26) Instructor Training, 12-13-02 to 12-23-02

27) **Plan Instructor Training –** Instructional designers will meet with computer resource teachers in the conference room of the technology department. They will review the Instructor's manual and plan to "train the trainers" using the computer lab.

28) **Train instructors** - This workshop for trainers will prepare the classroom teachers who will be training other teachers at their school sites. The instructor's manual will be explained and trainers will have hands-on practice with the software. Activities and handouts will be discussed and practiced

Phase 7 – 29) Final Arrangements, 12-23-02 to 12-30-02

30) **Arrange Workshop Location –** With the help of administrators the CRT must reserve the computer labs for the days of the training.

31) **Arrange space –** Based on the number of trainees for each site, the CRT must be sure that enough space is available. Labs must be reserved prior to the workshops and administrators will be informed of the activities.

32) **Arrange refreshments** – CRTs will purchase refreshments for each workshop. Drinks should include bottled water and fruit juices. Small snacks should include crackers and cookies. A cooler with ice will be needed to keep drinks cool. Napkins and plates will also be available.

33) **Arrange equipment –** Equipment must be set up prior to workshop sessions. (Elmo projectors, screen, computers for trainees, network access, and manuals) Supplies such as pencils, notepads, and floppy disks for saving work, should also be provided for trainees.

Phase 8 - 34) Conduct Workshop, 12-30-02 to 01-03-02 – Workshops will be conducted in each school lab at times specified by the computer resource teachers. Trainers will include the CRT and classroom teachers who use *Riverdeep* software. CRTs at each site will conduct part of the training. Classroom teachers who have successfully used the software will demonstrate these lessons for the trainees. Activities will include hands-on practice and interactive handouts. The amount of days of training at each site will depend on the number of trainees. Trainees will leave the training with a student/trainee manual that includes actual classroom lessons that can immediately be used in the classroom.

Phase 9 – 35) Extended Support Conducted, 01-03-02 to 01-10-03– Classroom teachers and CRTs will create a newsletter that circulates among the teachers who completed the training. In the text, teachers using the software will share stories of their successful *Riverdeep* lessons. Additional resources for further activities will be included in the newsletter. Experts from the Riverdeep company can assist in this section of the newsletter.

Phase 10 – 36) Summative Evaluation, 01-10-03 to 01-20-02– After all training sessions are conducted within the schools, the evaluation team must review the efficiency of the training and resources. In order to evaluate the software usage, time must be allowed for the teachers to begin using the software. A time period of three months should pass and the team will then make onsite visits to each school and observe teachers who are using the software. Evaluation lists will be checked during the observations. Teachers will be interviewed. Lab schedules will also be checked. Once the data is collected the team will be able to evaluate the fully implemented program.

Appendix A: Milestone Events and Activities

Appendix B: Staffing Plan

Appendix C: Budget