Technology Evaluation Plan

Webster Area School District Webster, SD

> CET 720 Spring 2011

Jason Julius Adam Mines Tammy Block

1. Evaluation Purpose

The purpose of this evaluation plan is to provide the Webster Area School District staff, teachers, parents, and other stakeholders with information regarding the quality of the network infrastructure, and technology integration and utilization by staff and students. The evaluation will analyze the district's issues of implementing both existing and new technology and determining what areas the staff requires additional professional development in to further enhance instruction. The final aspect that the evaluation will determine is the effect that technology has on teaching and student learning.

2. Evaluation Audience

The audience for this evaluation include school board members, administration, technology committee members, staff members, students, parents, business owners, and community stakeholders. All of the stakeholders mentioned above have a vested interest in how technology is currently being integrated, accessed, and utilized in the district. The South Dakota Department of Education Office of Assessment and Technology Systems will also have an interest in this evaluation as the technology plan determines E-Rate and Title II Part D funds for the district. The findings will help improve the district's technology program, as well as provide justification for it. Through the evaluation process the district will discover if the technology program is on the right track.

3. Description of the Evaluand, including:

-location of the school/district

In the fall of 2010 the Webster School District 18-4 consolidated with the Roslyn School District, thus becoming the Webster Area School District 18-5. Webster, county seat, is located in Day County which is in the northeast corner of South Dakota approximately 20 miles west of Interstate 29. Currently, Webster's population is 1,670 residents. Webster continues to thrive and grow economically due to the four lane highway all the way to the Interstate, the Industrial Park which contains Dakota Foundry, Mereen-Johnson Machine Shop, Esco Sign Company, and Dakota Tube. Other vital amenities provided by the community are seven different churches, eight different restaurants, a grocery store, a court house, a post office, a city library, two car dealerships, three hotels, two clinics, a hospital, a veterinary clinic, two electrical companies, a drug store, a furniture and gifts store, a discount store, and an extensive grain elevator just to name a few.

-type/age of students

The Webster Area School District is home of the Bearcats, 544 students in grades kindergarten through twelfth grade, and 45 teachers. This makeup provides a 13 to 1 student teacher ratio. The student population is primarily Caucasian with very few minorities. The school district is comprised of one elementary, middle school, and high school that are all interconnected. In 1991, a new middle school was built, replacing the 1908 junior high building; in 2005, a new high school was constructed, replacing the 1920 building; and the summer of 2010 brought a major renovation project that gutted the open concept 1970's elementary building, providing enclosed classrooms with actual doors!

-technology infrastructure

The Webster Area School has a wireless network throughout the entire building which provides freedom in learning for the teachers and their students. The elementary and middle school each have one computer lab, while the high school has two labs; each contain twenty-five personal computers, a laser printer, a scanner, a mounted projector, and a stereo surround sound system. In the high school there is a wireless mobile lab of about thirty laptops that can be checked out by teachers. Currently each administrator and certified teacher has been provided with a tablet for school use and to take home to complete school projects, while each non-certified staff person has been provided a desktop computer. Every elementary and middle school classroom is equipped with a Promethean Board, surround sound system, and at least one student computer, which is used for taking Accelerated Reader tests and online discovery. The majority of the high school classrooms are equipped with either SMART or Promethean Boards and a surround sound system. There are twenty-nine cameras placed inside and outside of the school building to ensure the safety of students and staff.

The district has one technology coordinator who maintains 215 desktops, laptops, and tablets, 4 servers, the wireless network, interactive white boards, projectors, scanners, printers, and the district's webpage. There are 4 wiring closets in the district.

-professional development activities

The district is providing a number of professional development activities including the

achievement series, criterion on-line writing program, technology integration, and new technologies.

In 2007 the use of the Achievement Series was implemented, starting with the training of the District staff. In each subsequent year the program was reviewed and continued to be used to monitor specific content standards on the Dakota STEP test.

Also starting in 2007, the Criterion On-Line Writing program was started for grades 9, 11, and 12. The program provides statistics of student writing progress based on state writing test scores. The program continued in 2008, and during 2009 the tenth grade was also added to the program along with additional middle school grades.

Technology integration was supported by committing a minimum of 1 hour at every in-service to provide strategies to staff members. The sessions in 2007 were implemented using volunteer staff presentations. In subsequent years, a presentation schedule was developed for the inservice.

Starting in 2008, 3 staff members were selected to attend the Technology and Integration in Education (TIE) conference. A staff rotation schedule was created, giving new instructors the opportunity to be exposed to the latest forms of technology.

-technology goals

Improve academic achievement and teacher effectiveness.

Improve professional development.

Integration of technology with curricula and instruction.

Improvement of infrastructure and technology.

Use of technology to promote parental Involvement and increase communications with parents.

4. Guiding Evaluation Questions

The following questions are meant to assist teachers and stakeholders recognize the strengths and weaknesses of the district's technology program. They will provide assistance in evaluating the current technology plan and program.

- 1. In what ways has the use of technology increased student engagement?
- 2. To what extent is the technology in the Webster School district impacting student learning?
- 3. Is the available hardware and software utilized in the district adequate to support the learning goals?
- 4. What opportunities exist for ongoing professional development and what is the participation level of teachers?
- 5. To what extent are the ideas presented at the in-service being integrated into the classroom?
- 6. Is the Criterion On-Line Writing program providing the instructors with the information they need and do the instructors understand how to use it?

5. Description of Evaluation Approach (Formative/Summative, Internal/External, ...)

As the technology plan approaches the end of the three-year cycle, a summative evaluation will be conducted externally by 3rd party evaluators. Improvements on the Dakota STEP test and state writing tests will be scrutinized and interviews with a sampling of teachers will be conducted to determine the impact of professional development in the classroom. The information collected will be used to attempt to answer the questions listed to guide the evaluation.

6. Methods of Identifying and Collecting Data

The following chart is a plan of action that utilizes the guiding questions and provides supporting information that addresses the significance of each question and the information required to answer each. The chart also provides an indication of how and when the required information will be collected and analyzed. This data will assist in improving the district's technology plan and department.

| Evaluation Question | Why the question is important | Information needed to answer the question | When and how the information will be collected | Analysis and Interpretation |
|--|---|---|---|---|
| 1. In what ways has the use of technology increased student engagement? | Measuring student engagement creates a broader sense as to whether the impact of technology has assisted learning. | We will need to determine student perception in the following areas: multiple strategies integrating technology and levels of integrating technology. | Students and instructors will complete a survey near the end of the fourth quarter. The survey will be conducted during homeroom time. | Student surveys will be tabulated by grade level with a range from low-level technology integration to higher levels of technology integration. Instructor surveys will be used to compare and contrast the student responses. |
| 2. To what extent is the technology in the Webster School District impacting student learning? | Administrators, instructors, parents, and any other stakeholders require evidence to continue supporting and funding technology in the classroom. | Current and past student grades and standardized testing results. | Student grades will be readily available from the school district. The State will provide historical test results for the Dakota Step and state writing exams. | The mean, median, and standard deviation will be calculated for past and present student grades and standardized test scores to determine if there was a statistical change once the technology was implemented. A two-sample T-test will be used to determine whether there was a statistical different between student grades and test scores before and after the technology was introduced. |

| Evaluation Question | Why the question is important | Information needed to answer the question | When and how the information will be collected | Analysis and Interpretation |
|---|--|--|---|--|
| 3. Does the available software, hardware, and Internet use support the district's learning goals? | Maintaining current/updated websites, hardware, and software while ensuring availability and the most efficient use of district resources is essential to prepare students at all grade levels. | Data identifying the following would be beneficial: hardware specifications, software applications, internet resources, multiple vs. unique platforms, availability of technology by grade level, frequency of updates, maintenance, frequency of use, and reliability of hardware. | The IT department will supply annual inventory listings detailing purchase dates and specifications for all equipment. Staff surveys will be conducted to determine the availability and effectiveness of current tools, technologies, and web resources available to instructors. The district's acceptable use policy will be reviewed and evaluated. | Inventory records will be examined to determine if any hardware or software solutions have exceeded the expected life of 3 to 5 years. Instructor feedback will be evaluated to determine if technologies within the 3 to 5 year life span have become obsolete. Verify the tools required in the AUP for filtering internet traffic and controlling access have been implemented by the school district. |

| Evaluation Question | Why the question is important | Information needed to answer the question | When and how the information will be collected | Analysis and Interpretation |
|---|---|--|---|--|
| 4. What opportunities for ongoing professional development exist and what is the participation level of teachers? | Evaluation of professional development activities will determine the overall effectiveness, implementation, and follow-up. | For each PD in the past 3 years, how many instructors implemented a change in their curriculum? What reasons did nonconforming instructors cite for not implementing the technology? Were any ideas brought back to the District from the TIE conference and implemented? | A faculty professional development request sheet will be administered in the spring of each school year. A sample of instructors will be interviewed to identify any issues or problems instructors had with PD sessions and technology. Instructors attending the TIE conference will be interviewed to determine what new ideas were brought back to the District. | Survey results will be combined and analyzed looking for common responses and ideas. Problems identified in interviews will be prioritized and weighted according to the number of times mentioned in separate interviews. |
| 5. To what extent are the ideas presented at the in-service being integrated into the classroom? | Determining if professional development is effective enough to have an impact on teaching strategies and ultimately on student learning. | We need to determine the actual frequency of technology integration and the depth of technology integration in each classroom. | A teacher survey identifying frequency and depth of technology integration will be conducted at the completion of the semester. | Survey results will determine the effectiveness of in-service formats and follow up training. |

| Evaluation Question | Why the question is important | Information needed to answer the question | When and how the information will be collected | Analysis and Interpretation |
|---|---|--|---|---|
| 6. Is the Criterion On-Line Writing program providing the instructors with the information they need and do the instructors understand how to use it? | This question will determine if instructors are adequately prepared to properly utilize the Criterion On-Line Writing program. | Determine each teacher's level of understanding and the overall application of the Criterion On-Line Writing program. | A teacher survey identifying level of comfort and competency on program will be conducted at the end of each school year. An annual demonstration for instructors of all disciplines will be provided; a refresher course for previously trained instructors will be provided separately from orientation training for new instructors. | Survey results will be reviewed annually providing information that will direct both the frequency and depth of future training. |

Example Data Collecting Resources

1. Student Engagement Survey

STUDENT TECHNOLOGICAL ENGAGEMENT SURVEY

I am a _____ Male _____ Female

I am in _____ Elementary School _____ Middle School (6-8) _____ High School (9-12)

How frequently during this school year have you done the following?

1 =Never, 2 =Once the whole year, 3 =Once per quarter/semester, 4 =Monthly, 5 =Weekly,

6 = Several times per week, 7 = Daily, 8 = Several times a day

- _____ Personally used a SMART Board or Promethean board during class
- _____ Received instruction from teachers who were using a SMART or Promethean Board
- _____ Used Senteo or Student Response systems
- _____ Used a laptop or desktop computer during school
- _____ Used email or blogs for assignments
- _____ Used a website designed by a teacher
- _____ Used video and picture equipment for an assignment
- _____ Used video and picture editing equipment for an assignment
- _____ Used word processing, database, and spreadsheet software (Word, Excel, Access)
- _____ Used presentation software (Prezi, Google Presentations, PowerPoint)
- _____ Used Internet Search Engines
- _____ Other: _____

Rate the following activities.

1 = Strongly Dislike, 2 = Dislike, 3 = Indifferent 4 = Like, 5 = Enjoy NA = Have never done this

- _____ Answering questions from the book
- _____ Lecture from instructors
- _____ Listening or watching instruction from audio or video sources
- _____ Reading from a book, magazine, or other paper sources
- _____ Reading from a computer screen
- _____ Personally using a SMART Board or Promethean board during class
- _____ Receiving instruction from teachers who were using a SMART or Promethean Board
- _____ Using Senteo or Student Response systems
- _____ Using a laptop or desktop computer during school
- _____ Using email or blogs for assignments
- _____ Using a website designed by a teacher
- _____ Using video and picture equipment for an assignment
- _____ Using video and picture editing equipment for an assignment
- _____ Using word processing, database, and spreadsheet software (Word, Excel, Access)
- _____ Using presentation software (Prezi, Google Presentations, PowerPoint)
- _____ Using Internet Search Engines

2. Technology Impact Verification

Records will be provided by the school district and historical data will be provided by the state using the following links:

- <u>The test results from 2010</u>
- <u>Historical Test Results</u>

3. Hardware / Software / Internet Use

Hardware Inventory

| Location Name | Serial Number | MAC Address | Asset Tag Number | Model | Processor | RAM | Cost | Date Purchased | Warranty Expires | How Purchased |
|------------------|------------------|----------------|------------------------|-------|-----------|-----|------|-------------------|---------------------|------------------|
| | | | | | | | | | | |
| | | | | | | | | | | |

Software Inventory

| Software Title | Version Number | License Agreement | Key Code | Preferred Operating System | Grade Level | Cost | Date Purchased | How Purchased |
|-------------------|-------------------|----------------------|-------------|----------------------------------|----------------|------|-------------------|------------------|
| | | | | | | | | |
| | | | | | | | | |

Instructor Hardware and Software Survey

| | Strongly Disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
|---|-------------------|----------|----------------------------|-------|----------------|
| The computers available in my classroom enhanced the students learning experience. | 0 | C | C | 0 | 0 |
| Technology is integrated into classroom activities 3 or more times per week. | G | C | C | 0 | 0 |
| I have had adequate training on all the available technologies in my classroom. | C | C | C | C | 0 |
| The memory and performance of presentation computers were adequate to run all available software programs. | C | C | C | C | 0 |
| I am satisfied with the availability of computer labs for my students. | C | C | C | 0 | 6 |
| Classroom projectors provided a clear, easily readable image. | | | | | |
| Internet access is sufficiently responsive to allow the use of internet searching and activities during my classroom discussions. | 0 | C | C | C | C |

- 1. Did you experience any situations where hardware specifications prevented you from using a software program in your classroom? If so, which software were you unable to use?
- 2. Are there any hardware or software products not currently in your classroom that you feel would enhance student learning?
- 3. Besides your presentation computer, what technologies do you use frequently to interact with your students (Smart Board, Computer Lab, Laptop Cart, Games, etc.)?

- 4. Did you experience the frequent failure of any hardware in your classroom?
- 5. In your experience, has Fortiguard properly blocked those sites that are inappropriate for educational use? Can you identify specific cases?
- 6. In what ways, if any, does the Acceptable Use Policy need to be revised?

Web Site Evaluation Checklist

This School Website Evaluation is designed to be a self-assessment tool for schools to use to assess their individual school website. These evaluation standards have been developed from a review of the best K-12 school websites on the Internet. To use this rubric, assign a score for each category, and then add the scores.

| Site Content | | | Scor |
|--|---|--|------|
| 0 - 5 | 6 - 12 | 13 - 20 | |
| Site does not present a "picture" of the school. No content of school activities or pictures are present No mission or philosophy statement is present No school history is present No principal statement is present; School or student handbook not present | School activities, mission or philosophy statement included Principal's statement included Handbook, or history may be present, but not comprehensive Site presents a fair picture of the school | Site is content 'rich' School/student activities, mission or philosophy statement included Handbook included History and principal's statement are all present and current A clear picture of school life is evident Links to Community Resources | |
| esign | | | Scor |
| 0 - 5 | 6 - 10 | 11 - 15 | |
| Pages do not show evidence of overall design or layout Graphics and logos are poor quality Text is difficult to read Page design changes throughout the site Graphics are excessive and distracting | Page show some evidence of overall design or layout Consistent use of colors, backgrounds, fonts, or icons Graphics are mostly of good quality Text is mostly legible but not entirely consistent. | Pages show clear evidence of overall design themes Graphics are of high quality and fast to load Text is easy to read in all instances. | |

| Navigation | | | Score |
|---|--|---|-------|
| 0 - 3 | 4 - 6 | 7 - 10 | |
| Navigation is missing or inconsistent Different methods of navigation are used User feels lost or stranded; buttons or links do not act predictably User must use "Back" or "Go" buttons in browser to navigate Frames (if used) are not targeted correctly and create confusion No link to district home page | Buttons and text links usually work predictably Some inconsistency with navigation conventions User might need to resort to browser controls for navigation in some cases Frames (if used) are mostly consistent but do not contribute to navigation and user experience Link to school / district home page is present but may not be used consistently throughout site | Navigation is consistent Buttons and links work predictably Navigation conventions are clear User is never lost or stranded Frames (if used) are targeted correctly and aid in navigation and user experience Main links are repeated at the bottom of every page Links to district home page are present and consistently used throughout site | |
| Timeliness | | · | Score |
| 0 - 3 | 4 - 6 | 7 - 10 | |
| Pages are rarely updated Old projects are presented as new or current E-mail addresses or home pages of staff no longer at the school are present Published dates for upcoming projects are already past Pages with "under construction" messages are common and not updated | Pages are updated infrequently Some "under construction" messages persist E-mail and home page addresses are mostly current Some project dates are past Teachers identified in a specific grade /subject /department may have moved to another | Pages are updated regularly Material is dated correctly E-mail addresses or home pages for staff are current Ongoing projects are truly current No "under construction" messages | |

| Parents | | | Score |
|--|---|--|-------|
| 0 - 3 | 4 - 6 | 7 - 10 | |
| No Parents section is present Parents section is not current and does not provide methods for parental input or contact Links to sites for parents are not present | Parents section is present but does not include information about ongoing projects Minimal parental input options are present (e.g., phone numbers) Newsletter is not published consistently PTA / SIC represented Some links to parent sites are present | Parents section is current Parental involvement is encouraged with multiple methods for input (e.g., phone, e-mail, suggestion box form, bulletin board, etc.) Ongoing projects are listed Newsletter is published consistently PTA / SIC pages present and complete Links to parent sites are present. | |
| School Calendar | | | Score |
| 0 - 3 | 4 - 6 | 7 - 10 | |
| No school activity calendars are present Activity calendars are out of date | School activity calendar is present but links to district calendars are not Activity calendars are mostly up to date but may omit some events | School activity calendars are always up to date and reliable They are updated frequently Links are provided to district and other calendars | |
| Staff Directory | L | 1 | Score |
| 0 - 3 | 4 - 6 | 7 - 10 | |
| No staff directory is present Staff directory does not provide ways to contact staff (e.g., e-mail, phone). | Staff directory is present but not always current Does not include all staff members Contact information is mostly provided | Staff directory is current and lists all staff, including itinerant staff Contact information is complete | |

| Student Work | | | Score |
|--|---|---|-------|
| 0 - 3 | 4 - 6 | 7 - 10 | |
| Few, if any, student projects are published Projects are limited to basic home pages Projects show limited editing or proofing | Some student work is present Teacher-created information about student projects (rather than actual student work) predominates Student projects are limited to only a few classes or individuals (e.g., only a few teachers or classes are involved) Some ongoing projects (such as literary magazines) are present Projects show some evidence of editing and proofing | Student projects are a significant feature Projects are from a variety of classes, levels, or individuals Projects feature original student work, including drawings, writing, photographs, videos, etc. Projects are related to curriculum Ongoing projects are present Projects show strong evidence of editing and proofing | |
| Legal/Guidelines | | • | Score |
| 0 - 1 | 2 - 3 | 4 - 5 | |
| Copyrighted images are used without permission Pages do not comply with district guidelines | Copyrighted images are used with permission but not always clearly credited Pages mostly comply with district guidelines | Copyrighted images are used with permission and clearly credited All pages comply with district guidelines | |
| Total | 1 | 1 | |

Software Request Form - <u>http://bit.ly/gHWjeX</u>

The software request form requires justification from the instructor, hardware/software validation from the Site Technology Specialist and approval by the Principle and Chief Academic Officer before purchase.

4. Professional Development

Professional Development Request Form

| Name: | _ |
|---|--|
| Grade Level Taught: | Subject(s) Taught: |
| 1. What length of professional development | do you prefer? (Please Check One) |
| 1 hour | full Day Session |
| 2. List the professional development topics t school years. | hat you would like covered during the next two |
| A | |
| В | |
| C | |
| D | |

3. State why the topics listed above would benefit your classroom or the school district as a whole.

| A | | | |
|---|------|------|--|
| В | | | |
| C | | | |
| D | | | |

4. Explain the necessary steps to ensure the implementation of the above topics.

| A | | | |
|---|------|------|--|
| | | | |
| B | | | |
| | | | |
| C | | | |
| | | | |
| D | | | |

TIE Survey Questions

- 1. What TIE sessions did you attend?
- 2. What applicable tools did you find that could be integrated into your classroom?
- 3. Do these tools require new software or hardware?
- 4. Are there trial or open source versions of the software that can be utilized?

5. What additional professional development is needed to introduce the tools to other staff members?

6. Is the technology appropriate for all faculty or just specific subject areas?

5. Professional Development Outcome Survey

| Profession | nal Develo | opment Outc | omes Survey | | |
|---------------|---------------|-----------------|-----------------|---------------|------------------|
| | | | | | |
| Course nam | ne: | | | | |
| Instructor: | | | | | |
| Week of: _ | | | | | |
| Directions: | Please rate | e the degree to | which you were | able to impl | ement the course |
| objectives u | sing the fo | llowing key: | | | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| Not at all | | Inconsiste | ently/partly | | Entirely |
| | | | | | |
| 1. Profession | nal develop | ment teacher ob | jectives | | |
| As the resul | lt of this pr | ofessional devo | elopment activi | ty I was able | to: Rating |
| A | | | | | |
| B | | | | | |
| С | | | | | |
| | | | | | |
| | | _ | | | |
| | - | ment student ou | | | |
| Upon imple | ementation | students were | able to: | | Rating |
| A | | | | | |
| B | | | | | |
| С | | | | | |
| | | | | | |

3. Please attach any evidence of implementation or impact (e.g., procedural checklists, logs, journal entries, student data).

4. Please describe any impediments (e.g., lack of materials, support, resources, training) that need to be addressed for consistent, successful implementation to be achieved.

5. Please describe strategies that you used to make implementation easier and or more successful.

6. (Optional) What are some other ways that the professional development had important impact on your practice?

7. (Optional) What are some other ways that the professional development had important impact on student outcomes in your classroom?

8. (Optional) What could be done differently to enhance the professional development session for you?

General comments:

Would you like follow up? _____yes _____no

Please provide contact information (phone/e-mail) so that any questions or difficulties implementing objectives can be addressed.

6. Criterion On-Line Writing Survey

Terrible

Criterion On-Line Writing Utilization Survey

Good

| Name | : | | | | |
|---------|-----------------------|---------------------|--------------|----------------------------|--------|
| 1. I ut | ilize the on-line Cr | iterion Wri | ting program | n with my students: | |
| | Once per we | ek _ | Biweek | ly | |
| | Monthly | - | Other | | |
| 2. I ut | ilize the on-line Cr | iterion Wri | ting softwar | e in my discipline: | |
| | English | M | lath | Social Studies | |
| | Science | V | ocational | Other | |
| 3. I ha | ave attended Criter | ion Writing | g training: | | |
| | In-House | W | /ebinar | Other | |
| 4. List | t the date of your ti | raining. (ex | : Jan. 2011) | | |
| | | | | (Month) | (Year) |
| 5. Hov | w would you rate y | our Criterio | on Writing t | raining? (circle your ansv | ver) |
| 1 | 2 | 3 | 4 | 5 | |

Excellent

6. If the Criterion Training did not meet your expectations, provide examples of how it could be improved.

7. Do you know where to access the library of essay topics within Criterion Writing?

____yes ____no

8. Do you create your own essay topics? Please list examples.

| A | | |
|----|------|------|
| D | | |
| В | | |
| C. | | |
| | | |
| D | | |

9. Provide examples of how you utilize your students writing feedback.

| A | | | |
|---|------|------|--|
| B | | | |
| C | | | |
| | | | |

10. What do the statics, within the software program, indicate about your student's

writing? (ex: grammar, usage, style, mechanics, etc.)

| A | | | |
|---|------|------|--|
| B | | | |
| С | | | |
| D | | | |

Works Cited

Professional Development Survey: <u>http://www.programevaluation.org/docs/PDO%20Survey.doc</u> School Website Evaluation Tool: <u>http://www.greenville.k12.sc.us/gcsd/depts/ets/policy/evalschl.asp</u> Software Request Form: <u>http://bit.ly/gHWj</u>