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ID Project Final

Teacher Instructional Development Training: creating Wiki pages for instruction

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Reflection Paper

Instructional design is comparable to being a surgeon. Surgeons follow the same basic process as instructional designers in effort to achieve successful results. First, surgeons must analyze the situation. During this process the surgeon analyses the patient's environment, the patient them self, the task or procedure at hand, and then performs test items such as lab tests and x-rays to determine which are best for different patient's needs.

This is much like the instructional designer who must analyze the learning environment, the learner, the learning task, and then write test items to identify which assessments items are valid for various types of learning. The next phase is strategy. The surgeon must determine the best organizational, delivery and management strategies to best help the patient; and then interpret these findings and produce these strategies to effectively cure the patient. Comparatively, the instructional designer's strategy is to determine instructional strategies for organizing and managing instruction. Then the designer produces instruction by providing strategies, translating the results and creating instructional materials and training guides. After the assessment and strategy phases have been completed, or any time therein, the surgeon conducts a formative evaluation. This evaluation helps the surgeon monitor, revise, append, or resolve problems that occur. This systematic, problem-solving process can result in effective, patient centered treatment. Similarly, the instructional designer conducts a formative evaluation during development and implementation and revises or modifies instruction as needed.

During this course I was amazed at all of the aspects considered when designing instruction. From the philosophical perspectives of designers, the theories that contribute to the design; from the front-end analysis to the ongoing evaluations and field tests to ensure the instruction is successful; and even learner attitude and motivation are aspects to consider when designing instruction. I have come to realize that instructional design requires an immense amount of analysis before implementation.

During a front-end analysis, the designer analyzes the instructional context, the prospective learners, and the learning task. (Smith & Ragan, 2005, p. 42) Analyses also include the learning environment, the learner themselves, field tests, surveys, and curriculum. I have researched the numerous models that are most appropriate depending on the learning/designing situation. I have even created a hypothetical training manual for teachers creating blogs for instructional education. The first project I used the Newby, Stepich, Lehman, and Russell PIE model (Gustafson & Branch, 2002) and consists of three phases; Planning, Implementing, and Evaluating. It is intended for classroom teachers, who usually work alone as the designer and deliverer of instruction.

This project I am using the Smith & Ragan model which also has three phases; analysis, strategy, and evaluation. This model is better used "in the field of instructional technology who are interested in the cognitive psychology base of the ID process." (Gustafson & Branch, 2002, p. 77) They believe applying a systematic, problem-solving process results in effective, learner-centered instruction. (Gustafson & Branch, p.

59) Instructional design is not necessarily linear, but rather requires a systematic approach. I have also learned what writing a goal consists of (and what it doesn't), the objectives that must support the goal, and that designing instruction must be thorough to be useful for the learner.

The design process will definitely benefit my future professional work in the field of educational technology. I will be more thorough in my instructions, written expectations, lesson plans, assessments, evaluations, and learner views. I will look closely at the environment and the actual learner to better develop material that will align with the instruction. Many learners are not experts or even comfortable with technology. The subject of technology has an extreme variation of learner comfort levels. This means it will be imperative to research and analyze all aspects before implementing and designing material. Front-end analyzing and the finished, designed material must be thorough to be effective!

References

Gustafson, K. L. & Branch, R. M. (2002). Survey of Instructional Development Models (4th ed.). *Syracuse, NY: Information Resources Publications, Syracuse University*

Smith, P. L., & Ragan, T. J. (2005). *Instructional Design 3rd Edition.* Hoboken: John Wiley and Sons.

Part 1. Topic

1a. Stated Learning Goal

Given access to an online wiki site, participants will create a classroom wiki page, and publish a note for their classroom.

1b. Description of the Audience

The audience for this instructional design project is elementary teachers, (termed the learner for this training) wishing to partake in an extracurricular technology in-service activity to enrich the classroom learning environment through critical thinking, at Gaston Elementary School in Gaston, Oregon.

1c. Rationale

There is a need for technology integration in learning at the elementary level. Many teachers want to integrate more technology in their teaching but are unsure where to begin or what means to use. Teachers are looking for ways to meet technology standards of creativity, collaboration, interaction, problem solving, and to engage learners. A wiki fulfills this need. Oregon education standards state that students will use technology for "communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, across the global community, to support individual learning and contribute to the learning of others. ET.2." (ODE, 2010)

Since most teachers attending this in-service training will not have extensive wiki knowledge, the type of learning that will be used is strategies for instruction leading to learning procedures. This will mainly be a supplantive approach, with a generative approach in the creativity part at the end of the training. Cognitive processes involving the learning of procedures of simple or complex steps usually require a supplantive strategy. The training will involve a blend of 90% supplantive and 10% generative.

Using the procedures process requires that the learner determine if a situation requires learning a particular procedure for cognitive tasks, recall procedural steps, complete these steps, and analyze the completed procedure to ensure it has been correctly applied. (Smith & Ragan, 2005) This training will involve steps of operation and are linear, so this procedure will be classified as a simple procedure. Because teachers will also be creating their own wiki notes, and will have the freedom of choice and creativity during this process, a generative strategy is useful for the end section.

Creating wikis as a beginner involves linear, procedural steps. Wiki creation involves learning a particular procedure for cognitive tasks, requires that teachers recall procedural steps, and then correctly complete these steps. Teachers will be required to analyze the completed procedure to determine whether the procedure has been applied correctly. These teachers will come with prior knowledge and previous experience using similar technology mediums, thus will be able to employ prior learning strategies to this in-service training.

Part 2. Analysis Report

2a. Description of the Need

2a.1. Needs Analysis Survey

The survey was sent to all 9 teachers, the elementary principal, and the technology coordinator at Gaston Elementary School. The survey was sent in an online format through the school districts email system. The survey was 15 questions long and available to staff during a one week window. The survey was sent in the summer, so results were expected to be lower than 50%.

Link to survey: http://bit.ly/ah1QqZ See Appendix A for reference.

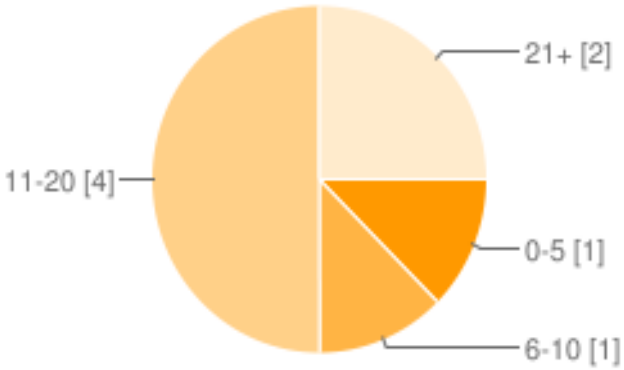
2a.2. Needs Analysis Data Report

One problem with the survey regarding the topic of wiki's is many teachers do not even know what a wiki is, nor how it would work for them in a classroom. They have never had exposure to its offerings or availability, so they are not necessarily interested in learning about the benefits. However, this also reinforces that there is a definite need for this topic.

This survey asked questions related to demographic information, technology information, and wiki experience. Of the 11 people the survey was sent to, 8 participants responded. Again, being that it was summer break, I was amazed the results were 72%. Of the 72% that responded, 25% had been teaching 21+ years, 50% 11-20 years, 13%

6-10 or 0-5 years. 75% of teachers surveyed had over 10 years classroom teaching experience and thus showed they are an experienced group.

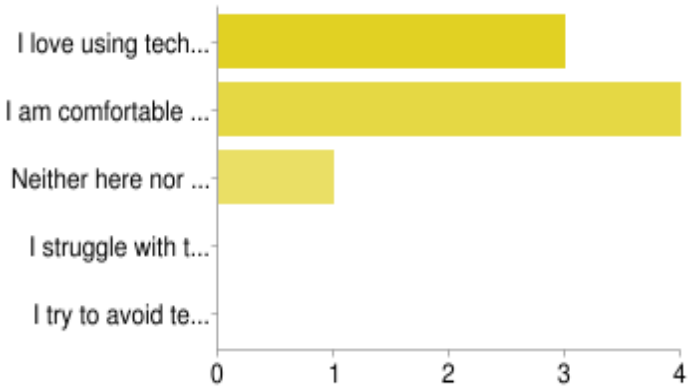
Years in the classroom



0-5 years	1	13%
6-10 years	1	13%
11-20 years	4	50%
21+ years	2	25%

Teachers surveyed were comfortable with the computer and used it for personal and professional means on a daily basis. 63% of teachers stated the computer was used for everything, 38% stated they used it when required, and 0% stated they wished they didn't have to use a computer. These teachers also enjoyed using different forms of technology.

Do you enjoy using technology?

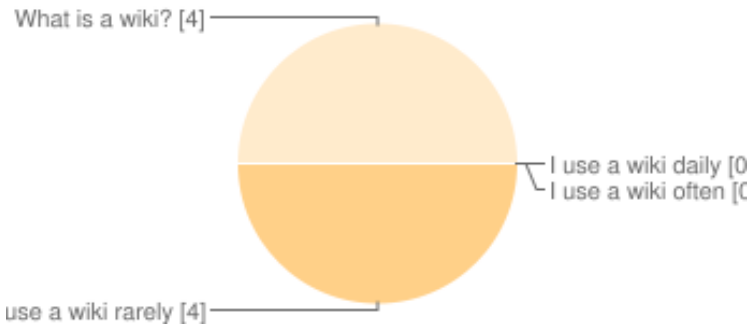


I love using technology	3	38%
I am comfortable with technology	4	50%
Neither here nor there	1	13%
I struggle with technology	0	0%
I try to avoid technology	0	0%

Since teachers enjoy using technology, they are more comfortable in using it in their classrooms. 13% use technology for everything they teach and 88% use technology somewhat. No teachers answered they only use technology only when they have to or not at all. 63% love finding new ways to integrate technology in the classroom, 38% enjoy integrating new technology but don't have time to. 38% felt technology makes teaching easier, and 63% is helpful and has its place.

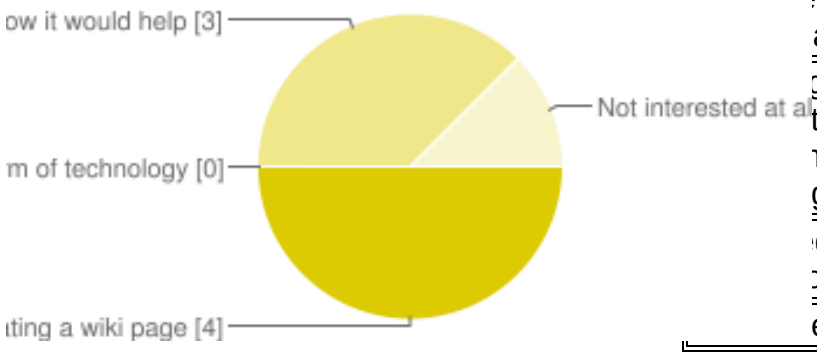
However, when the survey reached questions regarding wikis the answers changed drastically. 50% of the teachers were not sure what a wiki was and if they did know what it was 50% used it rarely. Nevertheless, 50% were very interested in creating a wiki page, 38% were interested but unsure how it would help. This statistic would inevitably change once teachers thoroughly understood and had training regarding wiki uses in the classroom. Only 13% were not interested at all in learning and implementing wikis.

Familiar with a wiki



I use a wiki daily	0	0%
I use a wiki often	0	0%
I use a wiki rarely	4	50%
What is a wiki?	4	50%

I would be interested in learning how to implement a classroom wiki



erested in a wiki page	4	50%
good, but I ther implement ner form of gy	0	0%
d, but not sure uld help	3	38%
ested at all	1	13%

Some of the teacher's comments to the survey were, "When creating a Wiki page, it would be helpful to see several working examples and have user-friendly instructions when setting it up." One recommendation was "for your current use of a wiki in the classroom I marked "again, what is a wiki?", but I would have like to have had the option "I don't currently have a wiki, and I am not sure how I would use one."

This assessment group was highly experienced in teaching and had a desire to use technology in the classroom. They also showed interest in learning about the topic of wikis. Therefore, according to the statistics of this survey, it was determined from the lack of knowledge and other questions answered there is definitely a need for wiki training.

2b. Description of the Learning Context

2b.1. Learning Context

A recent survey sent to Gaston Elementary School teachers revealed there is a desire for creating wiki pages for instruction during one of the teacher instructional development training sessions. As a result of this information a training session will be scheduled during an in-service day in the near future.

Gaston School District already has implemented in-service sessions every Tuesday afternoon. Students are released early from school every Tuesday so that teachers can participate in development projects. The training will occur in the elementary computer lab that has sufficient computers, to train classroom teachers, specialty teachers, and even classroom aides if the district so desires. This training will consist of two to three sessions.

After meeting with the superintendent and evaluating the districts technology goals, a meeting with the technology IT department must occur. Confirming the specifics of the lab, such as the number of functioning computers, model, operating systems, lab space, and availability should be discussed. Other areas of attention are browser preference, software add-ons, internet connection speed, and district privacy settings. Ensuring adequate teacher-user rights for accessing necessary Internet wiki sites needs to be considered not only in the training facility, but also in classrooms for live wiki page use. Scheduling to have IT available barring any malfunctions or needs during the training would be highly beneficial.

All computers at Gaston School District are loaded with Windows XP and have high speed internet connections through a 10 Mbps fiber connects back to ESD, which provides the Internet service. Each teacher has been assigned an individual email account. There is also a computer hooked to a document camera in the lab, so the participants can visually follow along with the trainer on a large screen.

2b.2. Transfer Context

Teachers will be using the newly learned skill within their classrooms to educate their students who are considered secondary learners for this project. Each classroom is outfitted with a computer that has internet connection, which is hooked to a document camera, where teachers will access the wiki pages. Teachers will also have designated

lab times each week that students will be using and accessing wiki pages for instructional use.

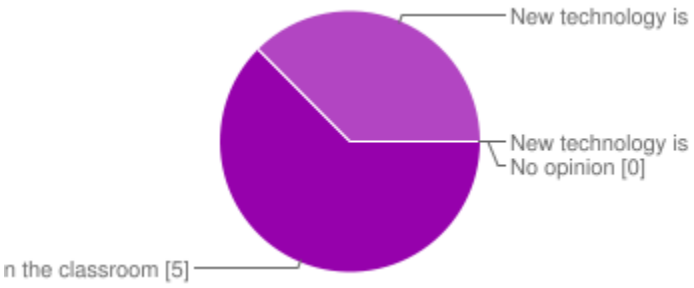
Collaboration is an important tool for learning, and is also part of the state standards. Wikis help encourage collaboration, student-centered learning, student information sharing, and the creation of interactive projects. Using wikis also helps students build connections between new and old knowledge by allowing student-created structure for the information and ideas, in addition to helping them to take ownership of their work. Wikis will also be useful and implemented for teacher collaboration.

2c. Description of the Learners

The primary audience for this training is the 10 elementary teachers. This plan will analyze and focus on affective characteristics consisting of the participant's interests, attitude toward subject matter at hand, motivation to learn, anxiety level, subject matter expertise, and prior working knowledge related to the subject.

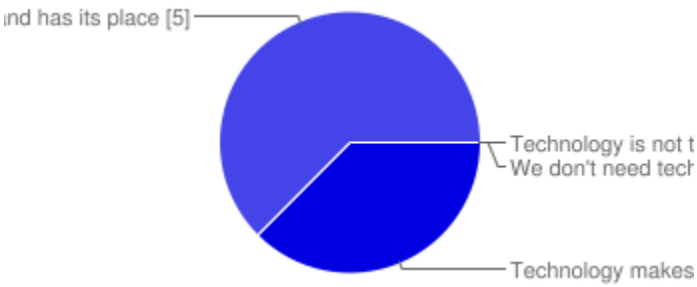
Analyzing the affective characteristics of the participants will determine the extent, depth, and pathway for training. Carefully considering the general characteristics of the target audience will influence instruction at the most fundamental levels. (Smith & Ragan, 2005) Knowing the information regarding their interests, attitude, motivation, and anxiety has determined the process of training. The survey revealed the participants are eager to learn about wikis and to teach their students this new information. 88% revealed they are interested in learning about creating a wiki for classroom use. Teachers feel that technology plays an important role in learning.

Attitude toward implementing technology in the classroom



ove finding new ways to tegrate technology in the assroom	5	63%
ew technology is fine, but don't have time for it	3	38%
ew technology is a waste time; we have what we need	0	0%
No opinion	0	0%

Importance of technology in learning



Technology makes teaching much easier	3	38%
Technology is helpful and has its place	5	63%
Technology is not that important	0	0%
We don't need technology to teach; it's more of a problem than a help	0	0%

The teachers are also receptive to training and implementation, which will help the ease of understanding new information, number of needed examples, level of control, and amount of time needed for instruction.

The secondary learners are the 248 students at Gaston Elementary School. There are 10 classrooms and each grade level K-6 averages 24 students. The students are all introduced to computers at a kindergarten level and students possess grade appropriate computer skills.

Part 3. Planning

3a. Learning Objectives (list)

There are five main objectives for this training course related to the primary learner. In addition, the objectives have sub-objectives.

1.0 Learners will be able to access and navigate the wiki page.
- 1.1. When given verbal procedures and visual prompts, learners will be able to log on to Internet and access wikispaces.com
- 1.2. When given verbal procedures and visual prompts, learner will navigate the wiki website.

2.0 Learner will evidence ability to setup new account
- 2.1. When given visual prompts, learner will navigate through setup and create a User name, password, and provide necessary information to create a new wiki account.
- 2.2. Learner will log into email account, validate account information, and activate account.

3.0 Learners will construct a main, classroom wiki page.

3.1. Using prior website knowledge, learner will create a new wiki and name main page.
3.2. When given verbal instruction and visual cues, learner will read prompts and post introduction and information necessary for a classroom wiki

4.0 Learner will create a classroom wiki topic for student collaboration
4.1. Learner will generate ideas for wiki topic
4.2. Learner will locate edit button and create a new wiki topic using the format box
4.3. Learner will evidence wiki by saving wiki for public view
4.4. Learner will log on to main site to preview and evaluate wiki

5.0 Learner will Invite others to join wiki
5.1. Learner will insert required information to invite users to view and contribute to classroom wiki either as a contributor or an evaluator.

3b. Matrix of Objectives, Bloom's Taxonomy, and Types of Learning

Objective Number (1)	Bloom's Taxonomy Classification (2)	Strategy to be employed to teach the objective (3)	Type of Learning (4)
1.0	Apply	Supplantive	Conceptual
1.1	Apply	Supplantive	Procedural
1.2	Apply	Supplantive	Conceptual
2.0	Apply	Supplantive	Procedural
2.1	Synthesize	Supplantive	Procedural
2.2	Apply	Supplantive	Procedural
3.0	Synthesize	Supplantive	Procedural
3.1	Knowledge	Supplantive	Conceptual
3.2	Apply	Supplantive	Conceptual
4.0	Synthesize	Supplantive	Procedural
4.1	Synthesize	Generative	Conceptual
4.2	Synthesize	Supplantive	Procedural
4.3	Comprehend	Supplantive	Procedural
4.4	Evaluate	Supplantive	Problem Solving
5.0	Apply	Supplantive	Conceptual
5.1	Apply	Supplantive	Procedural

3c. ARCS Table

Project Goal Statement: Given access to an online wiki site, participants will create a classroom wiki, post a wiki topic for student collaboration, and invite users to join the wiki.

ATTENTION
A1. Perceptual Arousal
➢ The session will begin with the viewing of functioning classroom wiki page examples. ➢ Numerous examples of benefits of using wikis for instruction will be displayed ➢ Demonstration showing ease of use in using a wiki in the classroom ➢ Survey results will be displayed for learners to visualize need and desire for specific in-service training.
A2. Inquiry Arousal
➢ Learners will contribute examples of prior student collaboration projects in the classroom. ➢ Learners will generate ideas where a wiki could be used as a student collaboration tool in the classroom. ➢ Learners will be asked to collaborate on a wiki page during the training session.
A3. Variability
➢ Demonstrations, examples, and collaborating will occur throughout the training to continually engage learners and activate attention. ➢ Learners will have the opportunity to work with other grade level teachers to ensure training is applicable and grade level appropriate.

RELEVANCE
R1. Goal orientation
➢ Prior knowledge will connect learners to skills being taught during session ➢ The topic is genuine and useful for classroom instruction, and provides useful benefits for instruction. ➢ Testimonials and examples will demonstrate ease and relativity to instruction.

R2. Motive matching
➢ Learners will have the opportunity to customize and personalize the training to meet their classroom, grade level needs. ➢ Learners will be encouraged to make wiki page personal and unique to their own teaching style.
R3. Familiarity
➢ Examples will be given to connect the wiki to learners classroom experience and prior knowledge ➢ Learner will relate the wiki instruction to personal learning goals relating to classroom instruction and collaboration

CONFIDENCE
C1. Learning requirements
➢ Learners will be guided through each step and given relevant examples of wiki pages to ensure success of new page creation ➢ Learners will be provided guided instructions and technical support throughout process to help achieve their goals ➢ A straightforward presentation of the procedure with demonstrations of the applications will be used rather than a self-lead discovery process during the training session.
C2. Success opportunities
➢ Frequent use of real-life, classroom examples will help learners visualize success using a wiki ➢ Immediate feedback, collaboration, peer support, and clear guidelines will be utilized so learners can succeed ➢ Successful, active classroom wikis will be demonstrated so learners are able to visualize success
C3. Personal control
➢ Learners will create their own personal wikis that are appropriate and applicable to their classroom situation. ➢ Learners will decide who is invited to contribute to and view their wikis. ➢ A rubric will be used to help learner achieve goals

SATISFACTION
S1. Natural consequences
➢ Learners will have the opportunity to collaborate with like peers to generate wiki topic ideas ➢ Learners will have an opportunity to practice using and evaluate the wikis during a future in-service session.
S2. Positive consequences
➢ Peers will provide feedback and suggestions for improvement opportunities ➢ All created wikis will be live on the internet for others to view their work
S3. Equity
➢ Invited members will have the opportunity to comment and contribute to the wiki

Keller, J. M. (1987). The systematic process of motivational design. *Performance & Instruction, 26* (9/10), 1-8.

Part 4. Instructor Guide

INTRODUCTION

Gain Attention

Ask learners to find an open computer, turn on their computers, and focus attention to the front of the class.

Inform learner of purpose

Advise the learners of the goal for in-service training which is: given access to an online wiki site, participants will create a classroom wiki, post a wiki topic for student collaboration, and invite users to join the wiki. Then learners will be given an overview of the training session agenda regarding wiki page creation. Finally, the learners will be shown survey results regarding the desire to implement wikis in the classroom for student collaboration so they can see the purpose of the training session. Learners will then go back to the classroom and implement the wiki for students to use as a collaborative, learning tool.

Stimulate Learner's attention

Learners will be shown an applicable, active wiki page example relating to classroom instruction to see the relevance and opportunity it can serve for classroom instruction. Learners will view testimonials that will also demonstrate ease and relativity to instruction. Then the trainer will explain that learners will have the opportunity to customize and personalize the training to meet their classroom, grade level needs. Finally learners will be encouraged to make the wiki page personal and unique to their classroom needs. The learners will also be able to relate the wiki instruction to personal learning goals relating to classroom instruction and collaboration.

Preview the Learning Activity

Trainer will explain the necessary steps involved in creating and setting up a classroom wiki page. Navigate to webpage, sign up for wiki page, verify information, create main wiki page, choose and develop wiki topic, and finally invite users to view and collaborate on the wiki page. Then teachers will collaborate with each other regarding their wiki pages to give advice and suggestions. Teachers will then evaluate their own progress using a provided rubric. Upon conclusion, teachers will implement the wiki page in a real-life classroom setting.

BODY

Stimulate recall of prior knowledge

Teachers are instructed to call upon prior knowledge of setting up and signing up with different websites in order to access the necessary features. Teachers will give examples of sites and steps needed to sign up with web site. Teachers will then break into grade level groups and discuss lessons in which students employed collaboration techniques for their project. Then they will come back together and share their student collaboration examples.

Present Information and Examples

The trainer will present classroom wiki examples. (Link to examples) Then teachers will be instructed to log on to computers. Teachers will follow concrete steps to complete the steps in the procedure for creating web pages. This will occur as a group, with the trainer completing the same steps using the document camera so all teachers can visually follow the procedure. Teachers will navigate to the webpage wikispaces.com, sign up for wiki page, verify information, create main wiki page, choose and develop wiki topic, and finally invite users to view and collaborate

on the wiki page. Teachers will then check to ensure they have correctly completed the procedure.

Gain and direct attention

To direct attention back to the topic and goal, the trainer will show another example of a classroom wiki page used for student collaboration and show testimonials for incorporating a wiki in the classroom.

Employ learning strategies

Learners will be directed to monitor their progress. If the conclusion of their procedural steps is off they will revise or reapply the procedure for creating a wiki page. Teachers will also refer to their notes regarding former collaboration projects and learner group ideas to create the wiki.

Practice

Learners will be given time to practice creating, editing, and collaborating on their wiki page and other learners wiki pages. The trainer will also have an active teacher collaboration wiki on the monitor for teachers to edit as a group so they are able to see the process. They will also create their own wiki as a group regarding this training and each teacher will contribute a creative, humorous posting to the wiki.

Evaluate Feedback

Teachers will group with other teachers of same grade levels and give each other verbal feedback regarding wiki pages. Teachers will also do self-evaluations using provided rubric. The trainer will also walk around the room and give verbal feedback. Teachers will be given a list of links to wiki resources for future needs.

CONCLUSION

Summarize and Review

The trainer will review the original goal of the training. A question and answer session, coupled with positive feedback will occur. Teachers are asked to share other ideas or suggestions they for implementing wikis in the classroom. One more example of an effective student collaborated wiki is displayed for teachers to see.

Transfer learning

The trainer informs learners of other ways to use and implement wikis for personal use or for classroom use. Teachers are encouraged to search and contribute to other wikis. A wiki non-related to education is displayed for teachers to see the many different ways a wiki can be used.

Remotivate and Close

Teachers are encouraged to share their classroom wiki with the group. This allows the other learners to generate ideas and see the relevance of incorporating a wiki for instruction. Other ideas and wiki topics will be shared. Teachers will see the positive and applicable ways to incorporate this new technological learning tool.

Assess learning

Since this training is geared toward teachers, they will independently assess their objectives as to the application of wiki, the list of steps required to complete the wiki, and determine whether the wiki procedure has been correctly applied.

Evaluate feedback and seek remediation

Feedback will occur in a generalized, verbal form. Private email information will be provided individually for teachers if there were difficulties with the procedure or on a needed basis. Evaluation will also occur verbally between teachers, and through self-evaluation. Teachers will now be ready to implement using the wiki in the classroom for student collaboration topics.

Part 5. Learner Content

5a. Learning Materials

List of necessary materials for this training.

Technology Materials	Physical Materials
✓ Tutorial videos (http://www.wikispaces.com/site/tour) ✓ Wiki resource links ✓ Computer with internet connection ✓ Example wiki pages	✓ List of generated ideas for wiki topic referring to student collaboration ✓ Notes on former student collaboration projects used in the classroom ✓ Instructors guide – Available here ✓ Rubric – Available here

5b. Formative and/or Summative Assessment Materials

This training is for teachers, thus formative assessments will take place throughout the session in a verbal format. Formative assessments will occur through self assessments, peer assessments, and trainer assessments. Participants will all receive a rubric (Appendix B) at the beginning of the session to reference while completing self and peer assessments. This rubric will be used by the trainer as a summative assessment after wikis are completed and evaluated at a future training.

5c. Technology Tool Justification

Technology Tool	Justification
Computer Lab	A central location with enough computers for each participant to use and collaborate with each other.
Document Camera	Allows the trainer to display live examples for all of the participants to visualize all at one time. Hooked to a computer, the trainer can show participants the computer screen and is large enough for the participants to see.
PC Computers with internet connection	The wikis are created on specific websites, thus computers with internet connections are necessary to create the wikis.
Wikispaces.com	The website used for creating wikis for teachers to use for instructional purposes.

Part 6. Formative Evaluation Plan

6a. Expert Review

The subject matter expert who graciously agreed to evaluate the Teacher Instructional Development Training: creating Wiki pages for instruction is Karen Frenette. Karen is a fourth grade teacher at Crater Elementary School and enjoys integrating technology in teaching her students. Crater Elementary School is also a school using forefront technology for daily instruction of students. She reviewed the website, instructors guide, and objectives via a questionnaire constructed in Google Docs.

6b. One-to-One Evaluation

Scott Catino, Gaston school district's technology coordinator, will help me conduct the one-to-one evaluation. He has numerous years of experience with many different technologies and has given countless technology trainings. He recently implemented and trained teachers on creating classroom Moodle pages for instructional use, and recreated the districts website to Moodle. Therefore, he would best be able to give experienced feedback regarding this wiki training.

6c. Small Group Evaluation

A small group of 4 teachers in respective grade levels would be utilized for the small group evaluation. This mini in-service would also incorporate the field trial section requirement. Teachers would evaluate the material that had been updated and revised following the one-to-one evaluation. Since the districts technology coordinator is also the trainer and has experience in this field, they will serve as the trainer for this small group evaluation. The technology coordinator will use the supplied material to conduct the mini in-service. Upon completion each member will complete an evaluation of the training as to the interest level, necessary improvements, effectiveness, usefulness, and necessary feedback related to the training session. This data would be used to further improve the material and make necessary changes prior to the actual training.

6d. Field Trial

The field trial would take place with the same core group of teachers that completed the small group evaluation and are willing to participate. Being that there are only 10 teachers, it is not feasible to perform the trial during the workshop since there will only be one workshop. The instructors guide will be utilized by the trainer during this trial. Teachers will help to revise the tutorial and training information during the training where needed. After the session, teachers will be asked to complete an evaluation survey regarding the effectiveness of the training session and ability to apply this information in the classroom setting. They will also report how the implementation process was received by students.

Part 7. Formative Evaluation Report

7a. Evaluation Survey or Rubric

The expert evaluation was created using a Google Docs survey. Link to survey. Below are the questions asked of the SME. The full questionnaire is available in Appendix C.

Expert Review Questionnaire

* Review the instructors guide (Part 4) to see if it is clear to follow.
* Review the website and links to make sure a trainer could correctly access them.
* Review the learning materials. (Part 5a)
* Follow the goal and objectives (Part 3a) and see if the steps are clear.
* Please give positive feedback and some constructive criticism.

Introduction

Please introduce yourself and elaborate on what types of technology do you use for teaching?

Instructors Guide

Is the instructors guide accurate?
Would the instructors guide be helpful in delivering the training?
The instructors guide follows a logical order.
Are the stated wiki examples are useful?
Does the instructors guide help participants achieve their goal?
Any other helpful information regarding Instructors guide?

Website and Links

Was the website was applicable to this training?
Are the links accessible?
Any other helpful information regarding Website and Links?

Learning Material

Was the learning material list was accurate and applicable?
Any other helpful information regarding Learning Material?

Goals and Objectives

Are the objectives in sequential order and easy to follow?
Do the objectives follow Blooms taxonomy?
Are the listed assessments and rubrics accurate, relative, and useful?
Are the goals of high expectation yet achievable?
Any other helpful information regarding Goals and Objectives?

Other

Would this training be best administrated as a written guide, online guide, online demo, face-to-face, or one-on-one training?
Would this training be helpful and/or promote learning? Please explain.
Other constructive criticism that would be useful?
Other positive feedback that would be useful?

7b. Report results of the expert review

The results of the expert review, given through Google docs, consisted of three sections; instructors guide, websites and links, learning material, and goals and objectives.

She stated this training would be helpful and promote learning. She also included, “this training would be an excellent resource for teachers and administrators in their progression of technology use.” In addition, this wiki specific topic of training would “give each learner the opportunity to understand the usefulness and process behind a wiki page, and how it can be implemented in the classroom setting for the benefit of students.”

Instructors guide

The instructors guide was accurate, followed a logical order, and used technologies that were useful to the participants. It is sequential, meaningful, monitors teacher progress and understanding, and gives careful evaluation to the relevant information regarding the unique nature of this topic. This manual is articulated as a linear tool for the instructor to guide teachers about comprehending and the significance of utilizing a wiki as a classroom tool. The guide “gives a sequential overview of how creating a wiki page is given in order for teachers to be receptive to the idea and responsive to live interaction during the training session.” She also stated, “This guide is useful for the instructor in order to guide teachers into creating a successful wiki for their own use and the reasoning behind its usefulness and ease of use.”

Websites and Links

The website and links were accessible and applicable to this training. They were helpful to the participants in relation to the topic and moved the training forward with clear understanding of the training.

Learning Material

The learning material was accurate and applicable to training. The list utilized all areas of necessary technology for this training to be successful.

Goals and Objectives

The objectives were in sequential order and followed Blooms taxonomy. The goals were of high expectation yet achievable for the participants. In addition, "the assessments give teachers an avenue of self-reflection towards their own understanding of a wiki page." The assessments and rubric were accurate, relative, and useful.

7c. Comments on Change

The expert evaluation did reveal some changes that would be beneficial to implement before the training. She also made some insightful comments that would benefit the training.

Given the choice of different training methods, she felt this training would be best administered through a face-to-face format. She commented that a written step-by-step guide for teachers to use would be helpful as to the specific steps for setting up a wiki to during the training and also later to reference in the classroom.

Part 8. AECT Standards Grid

Professional Standards Addressed (AECT)

The following standards, developed by the Association for Educational Communications and Technology (AECT), and used in the accreditation process established by the National Council for Accreditation of Teacher Education (NCATE), are addressed to some degree in this course. The numbers of the standards correspond to the numbers next to the course tasks show on the list of assignments. Not all standards are addressed explicitly through student work.

Standard		Assignments meeting standard in whole or part
Standard 1: DESIGN		
1.1 Instructional Systems Design (ISD)	X	ID Projects 1 & 2
1.1.1 Analyzing	X	ID Projects 1
1.1.2 Designing	X	ID Projects 1 & 2
1.1.3 Developing	X	ID Projects 1 & 2
1.1.4 Implementing	X	ID Project 2
1.1.5 Evaluating	X	Selected Discussion Forums; ID Project 2
1.2 Message Design		
1.3 Instructional Strategies	X	ID Project 2
1.4 Learner Characteristics	X	ID Project 1
Standard 2: DEVELOPMENT		
2.0 (includes 2.0.1 to 2.0.8)	X	ID Project 02

2.1 Print Technologies	X	Reading Quiz; ID Projects 1 & 2
2.2 Audiovisual Technologies		
2.3 Computer-Based Technologies	X	(all assignments)
2.4 Integrated Technologies		
Standard 3: UTILIZATION		
3.0 (includes 3.0.1 & 3.0.2)		
3.1 Media Utilization	X	(all assignments)
3.2 Diffusion of Innovations		
3.3 Implementation and Institutionalization	X	ID Project 2
3.4 Policies and Regulations		
Standard 4: MANAGEMENT		
4.0 (includes 4.0.1 & 4.0.3)		
4.1 Project Management		
4.2 Resource Management		
4.3 Delivery System Management		
4.4 Information Management		
Standard 5: EVALUATION		
5.1 Problem Analysis	X	
5.2 Criterion-Referenced Measurement	X	ID Project 2
5.3 Formative and Summative Evaluation	X	ID Project 2
5.4 Long-Range Planning		

COURSE GOALS & OBJECTIVES

The overall goal for the course is for each student to consider and use the systematic process of instructional design to create an instructional product. To achieve this goal, students will engage in activities that promote reflective practice, emphasize realistic contexts, and employ a number of communications technologies. Following the course, students will be able to:

1. Discuss the historical development of the practice of instructional design with regard to factors that led to its development and the rationale for its use

2. Describe at least two reasons why instructional design models are useful

3. Identify at least six instructional design models and classify them according to their use

4. Compare and contrast the major elements of three theories of learning as they relate to instructional design

5. Define “instructional design.”

6. Define the word “systematic” as it relates to instructional design

7. Define “learning” and synthesize its definition with the practice of instructional design

8. Relate the design of instruction to the term “educational (or “instructional”) technology”

9. Describe the major components of the instructional design process and the functions of models in the design process

10. Provide a succinct summary of various learning contexts (declarative knowledge, conceptual, declarative, principle, problem-solving, cognitive, attitudinal, and psychomotor)
11. Build an instructional design product that integrates major aspects of the systematic process and make this available on the web.

    a. Describe the rationale for and processes associated with needs, learner, context, goal, and task analyses

        i. Create and conduct various aspects of a front-end analysis

        ii. Identify methods and materials for communicating subject matter that are contextually relevant

    b. Describe the rationale for and processes associated with creating design documents (objectives, motivation, etc.)

        i. Construct clear instructional goals and objectives

        ii. Develop a motivational design for a specific instructional task

        iii. Develop assessments that accurately measure performance objectives

    c. Select and implement instructional strategies for selected learning tasks

i. Select appropriate media tools that support instructional design decisions

d. Describe the rationale and processes associated with the formative evaluation of instructional products

i. Create a plan for formative evaluation

12. Identify and use technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.

13. Apply state and national content standards to the development of instructional products

14. Meet selected professional standards developed by the Association for Educational Communications and Technology

15. Use various technological tools for instructional and professional communication

AECT STANDARDS (Applicable to EDTECH 503)

1.0 Design

1.1 Instructional Systems Design

1.1.a Utilize and implement design principles which specify optimal conditions for learning.

1.1.b Identify a variety of instructional systems design models and apply at least one model.

1.1.1 Analyzing

1.1.1.a Write appropriate objectives for specific content and outcome levels.

1.1.1.b Analyze instructional tasks, content, and context.

1.1.2 Designing

1.1.2.a Create a plan for a topic of a content area (e.g., a thematic unit, a text chapter, an interdisciplinary unit) to demonstrate application of the principles of macro-level design.

1.1.2.b Create instructional plans (micro-level design) that address the needs of all learners, including appropriate accommodations for learners with special needs.

1.1.2.d Incorporate contemporary instructional technology processes in the development of interactive lessons that promote student learning.

1.1.3 Developing

1.1.3.a Produce instructional materials which require the use of multiple media (e.g., computers, video, projection).

1.1.3.b Demonstrate personal skill development with at least one: computer authoring application, video tool, or electronic communication application.

1.1.4 Implementing

1.1.4.a Use instructional plans and materials which they have produced in contextualized instructional settings (e.g., practical, field experiences, and training) that address the needs of all learners, including appropriate accommodations for learners with special needs.

1.1.5 Evaluating

1.1.5.a Utilize a variety of assessment measures to determine the adequacy of learning and instruction.

1.1.5.b Demonstrate the use of formative and summative evaluation within practice and contextualized field experiences.

1.1.5.c Demonstrate congruency among goals/objectives, instructional strategies, and assessment measures.

1.3 Instructional Strategies

1.3.a Select instructional strategies appropriate for a variety of learner characteristics and learning situations.

1.3.b Identify at least one instructional model and demonstrate appropriate contextualized application within practice and field experiences.

1.3.c Analyze their selection of instructional strategies and/or models as influenced by the learning situation, nature of the specific content, and type of learner objective.

1.3.d Select motivational strategies appropriate for the target learners, task, and learning situation.

1.4 Learner Characteristics

1.4.a Identify a broad range of observed and hypothetical learner characteristics for their particular area(s) of preparation.

1.4.b Describe and/or document specific learner characteristics which influence the selection of instructional strategies.

1.4.c Describe and/or document specific learner characteristics which influence the implementation of instructional strategies.

2.0 Development

2.0.1 Select appropriate media to produce effective learning environments using technology resources.

2.0.2 Use appropriate analog and digital productivity tools to develop instructional and professional products.

2.0.3 Apply instructional design principles to select appropriate technological tools for the development of instructional and professional products.

2.0.4 Apply appropriate learning and psychological theories to the selection of appropriate technological tools and to the development of instructional and professional products.

2.0.5 Apply appropriate evaluation strategies and techniques for assessing effectiveness of instructional and professional products.

2.0.6 Use the results of evaluation methods and techniques to revise and update instructional and professional products.

2.0.7 Contribute to a professional portfolio by developing and selecting a variety of productions for inclusion in the portfolio.

2.1 Print Technologies

2.1.3 Use presentation application software to produce presentations and supplementary materials for instructional and professional purposes.

2.1.4 Produce instructional and professional products using various aspects of integrated application programs.

2.3 Computer-Based Technologies

2.3.2 Design, produce, and use digital information with computer-based technologies.

3.0 Utilization

3.1 Media Utilization

3.1.1 Identify key factors in selecting and using technologies appropriate for learning situations specified in the instructional design process.

3.1.2 Use educational communications and instructional technology (SMETS) resources in a variety of learning contexts.

3.3 Implementation and Institutionalization

3.3.1 Use appropriate instructional materials and strategies in various learning contexts.

3.3.2 Identify and apply techniques for integrating SMETS innovations in various learning contexts.

3.3.3 Identify strategies to maintain use after initial adoption.

4.0 Management

(none specifically addressed in 503)

5.0 Evaluation

5.1 Problem Analysis

5.1.1 Identify and apply problem analysis skills in appropriate school media and educational technology (SMET) contexts (e.g., conduct needs assessments, identify and define problems, identify constraints, identify resources, define learner characteristics, define goals and objectives in instructional systems design, media development and utilization, program management, and evaluation).

5.2 Criterion-referenced Measurement

5.2.1 Develop and apply criterion-referenced measures in a variety of SMET contexts.

5.3 Formative and Summative Evaluation

5.3.1 Develop and apply formative and summative evaluation strategies in a variety of SMET contexts.

SMET = School Media & Educational Technologies

Appendices

Appendix A

Learner Survey from Google Docs Forms

Gender

- Male
- Female

Years in the classroom

- 0-5
- 6-10
- 11-20
- 21+

Computer use on a daily basis

- I use it for everything
- I use it only when required
- I wish I didn't have to use a computer at all

Do you enjoy using technology?

- I love using technology
- I am comfortable with technology
- Neither here nor there
- I struggle with technology
- I try to avoid technology when able to

Use of technology in the classroom
eg. Document camera, computer, SmartBoard, blogs, wikis, Moodle

- I use technology for everything I tech
- I use technology somewhat
- I use technology only when I have to
- I avoid using technology

Attitude toward implementing technology in the classroom

- I love finding new ways to integrate technology in the classroom
- New technology is fine, but I don't have time for it
- New technology is a waste of time; we have what we need
- No opinion

Importance of technology in learning

- Technology makes teaching much easier
- Technology is helpful and has its place
- Technology is not that important
- We don't need technology to teach; it's more of a problem than a help

Familiar with a wiki

- I use a wiki daily
- I use a wiki often
- I use a wiki rarely
- What is a wiki?

I currently use a wiki in the classroom

- We use a wiki daily in the classroom
- My classroom has a wiki and we try to use it when we can
- My classroom has a wiki but never use it
- I don’t currently have a wiki, but I would like to use a wiki in the classroom
- Again, what is a wiki?

I would be interested in learning how to implement a classroom wiki

- Very interested in creating a wiki page
- Sounds good, but I would rather implement some other form of technology
- Interested, but not sure how it would help
- Not interested at all

Additional information you feel would be beneficial to know regarding wikis for technology in-service training

Appendix B

Rubric

	Exceeds Expectations	Meets Expectations	Beneath Expectations
Access and navigate Wiki site (wikispaces.com)	Independently log on to Internet, access website, and navigate features	Minimal assistance needed to log on to Internet, access website, and navigate features	Unable or major assistance needed to log on to Internet, access website, and navigate features
Setup new account & verify account	Independently create user name, password, and provide information to create new wiki account. Also independently able to validate and activate account information	Minimal assistance needed to create user name, password, and provide information to create new wiki account. Minimal assistance needed to validate and activate account information	Major assistance needed or unable to create user name, password, and provide information to create new wiki account. Unable or major assistance needed to validate and activate account information
Construct a main classroom page	Main page is properly named, and contains an introduction. There are no grammatical errors and it is professional in nature.	Main page is named, and contains an introduction. There are 1-3 grammatical errors.	Main page does not exist or is not named. There is no introduction or it contains more than 3 grammatical errors.
Create a classroom wiki topic	A wiki has been posted, has been published, and contains an appealing, relevant topic for students.	A wiki has been posted, but has not been published, or has been published but lacks appeal and relevance.	A wiki has not been posted.
Invite others to join wiki	N/A	Users have been invited to join wiki.	Invitation has not been completed.

Appendix C

Expert Evaluation Questionnaire

* Review the instructors guide (Part 4) to see if it is clear to follow.
* Review the website and links to make sure a trainer could correctly access them.
* Review the learning materials. (Part 5a)
* Follow the goal and objectives (Part 3a) and see if the steps are clear.
* Please give positive feedback and some constructive criticism.

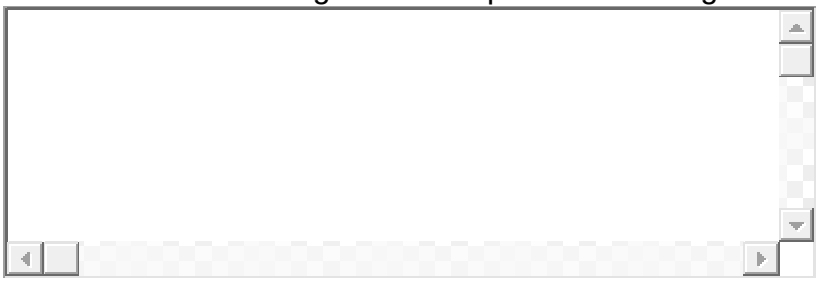
Please introduce yourself and elaborate on what types of technology do you use for teaching?

Instructors Guide

Is the instructors guide accurate?

- ☐ Yes it is accurate
- ☐ Mostly accurate
- ☐ Not very accurate

Would the instructors guide be helpful in delivering the training?



The instructors guide follows a logical order

- ☐ Yes
- ☐ Mostly
- ☐ No, revisions are needed

The stated wiki examples are:

- ☐ Useful to the participants
- ☐ Not realistically relevant
- ☐ Not helpful in learning how to create a wiki

Does the instructors guide help participants achieve their goal?

Any other helpful information regarding Instructors guide

Website and Links

The website was applicable to this training?

- ☐ Yes, very helpful
- ☐ Yes, but a different website would have been better
- ☐ No, there are many better utilized websites for this type of training

The links are accessible

- Yes
- Most of the links work
- No

Any other helpful information regarding Website and Links

Learning Material

The learning material list was accurate and applicable

- Yes the material was accurate
- Yes, but a few items were left out

Any other helpful information regarding Learning Material

Goals and Objectives

Are the objectives in sequential order and easy to follow?

- Yes
- Mostly, a few revisions
- Hard to follow, major revisions

Do the objectives follow Blooms taxonomy?

- Yes
- Mostly, a few revisions
- No, not at all

Are the listed assessments and rubrics accurate, relative, and useful?

Are the goals of high expectations yet achievable

- yes, both high expectations yet achievable
- Achievable but not of high expectation
- No, not expectations or achievable

Any other helpful information regarding Goals and Objectives

Other

Would this training be best administrated as: mark all that would be most useful

- Written informational training guide
- Online training format
- Online demonstration video
- face-to-face training
- one-on-one training

Would this training be helpful and/or promote learning? Please explain

Other constructive criticism that would be useful

Other positive feedback that would be useful