

# Instructional Technology Portfolio

## Nancy Tatum

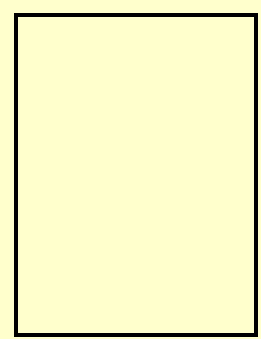
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### Welcome!

**This is my professional portfolio to showcase work completed for the Instructional Technology Masters of Arts degree program at Virginia Tech.**

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**Contact information:**  
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I am an Instructional Technology Resource Teacher with the Williamsburg James City County Public Schools system. My Bachelor of Science degree is in Early Childhood Education from Old Dominion University. I earned National Board Certification as an Early Childhood Generalist in 2000. I will complete the Instructional Technology Masters of Arts degree program at Virginia Tech in June of 2010.

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Design

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## **Definition**

Design involves determining and laying out the conditions and specifics for the learning process to take place.

## **Reflections**

The major point I have learned during my three years of the ITMA program is that planning and instructional design are key to an effective lesson and student achievement. When I began the program I thought I was a very effective teacher and thoughtful planner. I had even earned National Board Certification. I now know I was not as thorough a planner as I am today. Becoming an effective teacher involves multiple layers; understanding educational learning theories, educational psychology, examining the learner, writing objectives, effective assessment, instructional strategies, incorporating Gagne's nine events of instruction and the systematic design of instruction presented by Dick and Cary. The majority of documents included in this design section demonstrate the amount of planning I conducted and my adherence to the instructional design model of Dick and Cary taught during this program. There are also documents included that show my ability to complete detailed and meaningful instructional strategies. Learner characteristics are taken in consideration with each instructional design or lesson plan included. The documents included show I am able to examine learners in several different contexts, including distance learners.

What I have learned in the ITMA program has helped me to become a more thorough instructional designer. Now when I am met with an instructional problem I think in terms of steps I need to take to plan the lesson; who are the learners, what are their needs, what are the specific objectives, what do I want them to learn, how will I know they have learned it, what instructional strategies will I use, what media is needed and how will I engage the learners, just to name a few.

## **1.1 Instructional Systems Design (ISD)**

Analyzing, designing, developing, implementing and evaluating are all components of the Instructional System Design process. The process is more important than the product.

[Multimedia Design](#) (Multimedia Authoring)- This document shows the complete process for the design and development of a multimedia lesson for 6th graders on ratios. It includes a needs assessment, goal statement, learning domain, instructional analysis, learner analysis, context analysis, objectives and assessment items, instructional strategy, and choice of authoring program and delivery system.

[ID Final Project](#) (Instructional Design) - This document shows the complete process for the design and development of a lesson for 2nd graders on map skills. It includes a needs assessment, goal statement, instructional analysis, target population, performance and learning contexts, learner analysis, context, skills, objectives and assessment items, instructional strategy, and consolidation of media selections and delivery system, proposed development procedures, and proposed formative evaluation procedures.

[Proposal](#) (Project and Report) - This document is the proposal for the final applied instructional design project. It includes a detailed project description, specific objectives, methods and materials, justification for the project, and criteria for evaluation.

[Instructional Design](#) (Project and Report) - This document shows the complete process for the design and development of my final applied instructional design project - a website for teacher training materials to assist teachers using Qwizdom Personal Response System in their classroom. It includes a needs assessment, goal statement, instructional analysis, learner analysis, context analysis, skills, objectives and assessment items, instructional strategy, proposed development procedures, and choice of authoring program and proposed formative evaluation procedures.

## **1.2 Message Design**

The physical form of the message is what is involved with this subdomain.

[Using Graphics to Fulfill an Educational Need](#) (Graphic Design for Electronic Presentations) - This document demonstrates the planning for a lesson on utilizing an electronic grade book for teachers. The lesson was in the form of a PowerPoint presentation and many graphics were located and or created to help deliver the message.

[Storyboards](#) (Multimedia Authoring) - This document lays out the graphics and design for the multimedia lesson created using Flash for 6th grade students learning about ratios. The graphics are critical in portraying the message and content of the lesson.

[Instructional Sequence and Storyboarding](#) (Digital Audio) - This document lays out the graphics and design for the audio/video lesson created using MovieMaker for teachers learning how to connect equipment in their classroom. The video and audio are critical in portraying the message and content of the lesson.

## **1.3 Instructional Strategies**

The selection and sequence of activities and events for the lesson are developed in the Instructional Strategy.

[Instructional Strategy](#) (Instructional Design) - This document illustrates the sequencing and clustering of objectives, pre-instructional, assessment and follow-through activities, content presentation and student participation, as well as lesson allocation and consolidation of media selections for a lesson design to teach 2nd grade students map skills.

[Strategy](#) (Multimedia Authoring) - This document shows the instructional strategies for the design and development of a multimedia lesson for 6th graders on ratios. It includes a needs assessment, goal statement, instructional analysis, learner analysis, context analysis, objectives and assessment items, instructional strategy, and choice of authoring program and delivery system.

[Lesson Plan Project](#) (Learning Theories for Instructional Design) - Within this document is a lesson plan project including an instructional sequence for teaching a lesson about the Civil War to 4th grade students.

## **1.4 Learner Characteristics**

Learner characteristics include all the relevant information about the learner(s) to enable the most effective learning process.

[Creating a Lesson in Audio](#) (Digital Audio) - This document includes a learner profile

in preparation for an audio lesson for teachers on how to connect the technology equipment installed in their classroom.

[Characteristics for Distance Learners](#) (Telecommunications and Distance Learning) - This documents provides a description of distance learners.











[Learner and Context Analysis](#) (Instructional Design) - This document provides the learner analysis as well as the performance and learning context for an instructional project about map skills for 2nd graders.

[Distance Course Analysis](#) (Telecommunication and Distance Learning) - This document reviews a distance learning course. A learner analysis was presented as part of this document.

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Development

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## **Definition**

Development is the process of creating and bringing to life the instructional strategies. A product is developed utilizing one of the following technology forms: print, audio-visual, computer-based or integrated technologies.

## **Reflections**

Development is important because even the most thorough of instructional design projects will not be effective if they are developed poorly. During the course of the ITMA program I have learned effective development techniques from classes such as Graphic Design for Electronic Presentations, Digital Video and Digital Audio. In the Graphic Design I learned about different image file types and their strengths and weaknesses. Prior to this class I was aware of different image file types but didn't truly understand the differences between them. The same is true for video and audio file types. These courses were valuable to be, giving me a more in-depth understanding about which file types to use in a variety of circumstances.

During the Multimedia Authoring course I decided to learn Flash to create my lesson on ratios for 6th grade students. This was an extremely challenging process, having to teach myself the program while developing the extremely detailed instructional design. Flash is a program I had been wanting to learn and I believe it allowed me to develop a more effective and engaging lesson. Another challenge I took on was learning to use Adobe's Dreamweaver web authoring software. My final Applied ID project for the Project and Report class is a website housing video tutorials and tip sheets providing teachers with the resources necessary to learn to use the Qwizdom Personal Response System in their classroom. I am very proud of both these development projects and especially that I challenged myself to learn something new.

As a result of learning about development I will be more inclined to develop my own instructional designs rather than use something already produced. By developing my own designs, the end product will be more tightly aligned with the specific objectives and will more clearly meet the needs of the learners.

### **2.1 Print Technologies**

Print technologies are produced using the printed form of materials.

[Visual Reminder](#) (Graphic Design for Electronic Presentations) - This document can be printed and posted in the classroom to help teachers remember to take attendance each day.

[Sign for Back to School Night](#) (Graphic Design for Electronic Presentations) - This document was meant to be printed and posted at Back to School night to alert parents to the Edline online resource.

[Safari Montage Informational Flyer](#) (Graphic Design for Electronic Presentations) - This is a flyer/informational piece that can be printed or emailed to teachers to inform them of the new online resource, Safari Montage.

## **2.2 Audiovisual Technologies**

Audiovisual technologies are produced and delivered using both auditory and visual instructional methods and materials.

[Creating a Lesson in Audio](#) (Digital Audio) - This document describes a lesson for teachers using audio and video on how to connect the technology equipment installed in their classroom. There is a link to the video at the end of the document.

[Video Project 1](#) (Digital Video) - This video provides an overview of what can be expected when visiting a winery.

[Video Project 2](#) (Digital Video) - This video provides an overview of what can be expected when visiting a pumpkin field. Pumpkins at their various stages of growth are shown and the video ends with the pumpkin being carved.

## **2.3 Computer-Based Technologies**

Computer-based technologies are produced utilizing digital instructional materials and delivered through a computer or a handheld device.

[GradeQuick Training](#) (Graphic Design for Electronic Presentations) - This was designed as a PowerPoint to use when training teachers how to use their electronic grade book. It was designed to be shown to the group using a computer and a projector to present the PowerPoint while each trainee is working along on their own computer. The technology used to produce the artifact include a computer with presentation software (PowerPoint), Snag-It software for creating screenshots to use in the PowerPoint and the web-based grade book product our school division uses.

## **2.4 Integrated Technologies**

Integrated technologies are produced by combining multiple forms of media and delivered through a computer or a handheld device.











[Final Project](#) (Multimedia Authoring) - This is a program created with Flash geared to teaching 6th grade students about ratios. The technology used to create this artifact include a computer, Adobe Flash software, word processing software (Word) to create the student recording sheet, a digital camera (to take some of the pictures), internet resources for music and practice websites, and a microphone for recording some narration.

[Applied ID Project](#) (Project and Report) - This is a website created for teachers to use to assist them with using Qwizdom in their classroom. There are video tutorials as well as printable tip sheets. The technology used to create this artifact include a computer, word processing software (Word) to create tip sheets, Adobe Acrobat to save documents as pdf files, Snag-It software for creating screenshots for the tip sheets, Camtasia Studio software to create the video tutorials, Qwizdom Connect software, Adobe Dreamweaver web authoring software, internet tutorials for learning how to use Dreamweaver, Flip Camera to take videos of Qwizdom in use in the classroom, Movie Maker to put these video clips together to create a final video.

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Utilization

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## **Definition**

Utilization looks at how instructional technology resources and lessons are going to be used by the learner/user. This domain includes how media is used to interact with the learner, the diffusion of interaction, implementation and utilization as well as policies and regulations.

## **Reflections**

When thinking about this component I now understand that utilization is about who the user is, who the technology is intended for. Utilization focuses on how the user uses the instructional materials I select to use to meet the objective or the ones I have designed and developed. When selecting media or designing projects to be developed one must keep the user in mind so as best to develop a product to meet their particular needs. For example, if designing a project for hearing impaired students you will want to use materials that do not rely on an audio component. The media used would need to be strong on print or visual materials.

I included the Applied ID final project from the Project and Report class because it contains a project designed and developed for teachers to use to learn about and adopt this new technology. This project also is important to the implementation of the Qwizdom software and it's use to promote K-12 student achievement throughout the school division. Two documents from my Education and the Web were included because they helped me to become more familiar with copyright and fair use laws and how to locate information necessary to write policy and regulations regarding technology in education.

### **3.1 Media Utilization**

Media utilization involves the process in which media is used to interact with the learner during instruction.

[ASSURE Lesson - Video](#) (Instructional Media) - This document is an example of an ASSURE model lesson plan incorporating a video. The users are kindergarten students. The use of media (video) helps the learners meet the objective of making predictions about what will happen next during this wordless video of the children's book, "A Boy, a Dog, and a Frog". This media was chosen because the end users (kindergarteners) are very visual and will be focused and engaged by the large video being presented. The objective is for them to make predications about what is happening. The teacher will pause the video at designated intervals and require the students to interacting with each other by making a prediction about what will happen next.

[ASSURE Lesson - Visuals](#) (Instructional Media) - This document is an example of an ASSURE model lesson plan incorporating visuals in the form of projected media. The users are 1st grade students. The use of media in the form of projected visuals (PowerPoint slides as well as projected student work on dry erase boards using the document camera) helps the learner meet the objective of solving story and picture

math problems. The first graders are the end users of the technology being used by using the document camera to project their work and explain their answer. They are interacting with the PowerPoint and the projection technology without even being aware they are doing so.

### **3.2 Diffusion of Innovations**

Diffusion of innovations involves the communication process for bringing awareness and change to the learner.

[Applied ID Project](#) (Project and Report) - This is a website created for teachers to use to assist them with using Qwizdom in their classroom. One goal of the website was to encourage teachers to learn this new technology and use it in their classroom. Included are video tutorials as well as printable tip sheets that enable teachers to become the users of this technology on their own without any help. Williamsburg/James City County Public School teachers are the learners and users of this instructional material.

### **3.3 Implementation and Institutionalization**

Implementation involves using of instructional materials or strategies in authentic situations.

Institutionalization involves the incorporation or regular use of any given instructional innovation with in an appropriate school, group or organization.

[Final Project](#) (Digital Audio) - This video provides a lesson for teachers using audio and video on how to connect the technology equipment installed in their classroom. Teachers may refer to this resource when they need additional help connecting their equipment. Williamsburg/James City County Public School teachers are the learners and users of this artifact.

[GradeQuick Training](#) (Graphic Design for Electronic Presentations) - This was designed as a PowerPoint to use when training teachers how to use their electronic grade book. It was designed to be shown to the group using a computer while each trainee is working along on their own computer. However, teachers may refer to this resource when they need additional help with their electronic grade book. Williamsburg/James City County Public School teachers are the learners and users of this artifact.

### **3.4 Policies and Regulations**

Policies and regulations are very simply the rules generated by groups that provide structure, guidelines and limitations to the use of Instructional Technology.

[Copyright and Fair Use Issues](#) (Education and the Web) - This document identifies and discusses three major copyright or fair use issues that have influenced my selection and use of materials in my profession. I am the user of this artifact, but it could be useful to Media Specialists and all classroom teachers.











[Implications of Using the Web](#) (Education and the Web) - This document provides links to web sites to locate information pertaining to such issues as privacy, policy, and internet safety. I am the user of this artifact, but it could be useful to other Instructional Technology Resource Teachers and Media Specialists.



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Management

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## **Definition**

Management involves the organization, planning, supervising and controlling all the information relative and necessary to the instructional process. This includes all programs, documents, and resources as well as the various delivery systems involved.

## **Reflections**

When implementing the development of a large scale instructional design it is imperative that you have the management skills needed to complete the goal. I am a very organized person by nature, however the ITMA program has taught me to be even more aware of resource and time management. Learning to manage files, large and small by using VT's FileBox and WebDAV file transfer has been very important in managing the resources and files connected with the ITMA program. I selected a couple of documents from the Project and Report class as evidence of my project management abilities. During the completion of the Applied ID final project I created and used a checklist to assist me in managing the resources I needed to create for the project. The survey provided me with necessary feedback to provide help to teachers using the website while monitoring the project. The Time Log provides evidence that I was able to manage the resources, such as tutorials to learn Dreamweaver and Camtasia, necessary to complete the project. I ran into difficulty with this project when others tried to view the video tutorials over different platforms and using a variety of media players. It was necessary for me to experiment with different video file types and a variety of methods to insert them into Dreamweaver before I was successful at making the videos play across all platforms. As a result of this project I now understand the difference in video files and how each play on different platforms and browsers. In the future I will keep this knowledge in mind when creating video files to be posted to a website.

### **4.1 Project Management**

Project management is the process of planning, monitoring, and controlling all the items involved with the instructional design and the development of those designs.

[Task Manager Checklist](#) (Project and Report) - This document is located on page 6 of the Evaluation Tool and Result Summary. It was used to assist me in planning and creating the resources needed for the project.

[Qwizdom Survey](#) (Project and Report) - This is the survey linked to the Qwizdom website. I have encouraged users to take the survey after using the website to provide me with important feedback to better help them. This survey helps me monitor teachers needs and requests for those that complete it. The completed survey results also help me to determine what changes or additions might be needed to the website.

[Portfolio Proposal](#) (Portfolio Evaluation) - This is proposal for implementing a writing portfolio for sixth grade students. The proposal explains the need as well as the plan

for incorporating this form of an evaluation portfolio at my school. Sixth grade students will be required to complete a writing portfolio to demonstrate their mastery of the writing process and their ability to reflect on their craft.

#### **4.2 Resource Management**

Resource management is the planning, monitoring, and controlling of all the necessary resources needed to support the instructional design project.

[Time Log](#) for Applied ID Project (Project and Report) - This log was used to record time spent on various elements of the Applied ID project. The necessary resources and how I managed my time learning about them are listed on this time log. The log also demonstrates how I managed control of the resources needed to accomplish this project.

#### **4.3 Delivery System Management**

Delivery system management is the planning, monitoring and controlling the method of delivery and the systems and resources involved to enable proper presentation of the lesson to the learner.

[Applied ID Project](#) (Project and Report) - This is a website created for teachers to use to assist them with using Qwizdom in their classroom. This project demonstrates how I was able to problem solve the delivery system (linking and embedding video files into Dreamweaver) needed to make sure the video tutorials played on different browsers. This delivery solution was critical to the proper presentation of the lesson to the learner. The main delivery system incorporated in this project is Dreamweaver. The management of this software involved locating a server to host the files and making sure the program was accessible using all computer platforms and browsers..

#### **4.4 Information Management**

Information management is the planning, monitoring, and controlling the storage, transfer, or processing of the information necessary for learning to take place.

[Final Project](#) (Multimedia Authoring) - The program created with Flash is geared to teaching 6th grade students about ratios. The project demonstrates use in making sure all the information necessary for learning is monitored, controlled and processed for use by the students. The final file must be stored and managed on a share drive so all intended students can access it for the lesson.











[Journal Guidelines](#) (Education and the Web) - This document is the journal I kept that served as an organizer and repository for web-related information. The management, storage and continued monitoring of this information is necessary for planning to continue and in then enables learning to take place.

[Using Graphics to Fulfill an Educational Need](#) (Graphic Design for Electronic Presentations) - This document demonstrates the planning for a lesson on utilizing an electronic grade book for teachers. The lesson was in the form of a PowerPoint presentation and many graphics were located and or created to help deliver the message. This presentation is another illustration of planning the storage and transfer of information necessary for teachers to learn about using their electronic grade books. The file needed to be made available to teachers on a shared network drive so they could access even after the lesson.

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Evaluation

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## **Definition**

Evaluation is the process of measuring the effectiveness of instruction. The results gathered provide the instructor with insight of the learner's mastery of skills and can facilitate the direction of future instruction.

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## **Reflections**

I have learned during the course of the ITMA program about the different types of assessments and when to use them. I have learned that assessment should not be an after thought but in the forefront when designing instruction. I have also learned it is critical that the assessment match the objectives. I see many teachers use question banks to create assessments when they should be assessing their students based on their stated goals or objectives. Assessment is valuable as a tool to modify instruction and determine the direction future instruction should take. As an example, the Qwizdom Survey below was used as a tool to determine what teachers need and the type of instruction they find most useful and meaningful. Criterion-referenced measurement can be found in both final instructional design projects from the Multimedia Authoring class and the Instructional Design class. In both examples objectives are matched with criterion-referenced assessment questions. At first I thought this was odd to be creating the assessment questions so early in the process but I now understand the necessity of this sequence.

Formative and summative evaluations have been included in this section. I have included the formative evaluation I conducted following the peer reviews for my final project in the Multimedia Authoring class. This results of this formative evaluation showed that overall the reviewers were pleased with the program and felt it would be successfully used with the intended audience. They commented on the ease of use and were drawn to the graphics and sound included. Revision suggestions based on the evaluation were to include the objective more prominently. Other suggestions were to make it clearer to the learner when the program ended and to better prepare the learner for moving to the practice websites. The summative evaluation conducted for the Software Evaluation class was helpful when it was time to develop the instructional design utilizing the web based program. I was able to utilize the strengths of the program and make accommodations for the weaknesses.

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### **5.1 Problem Analysis**

Problem analysis involves collecting relevant information and data to define an instructional problem.

[Qwizdom Survey](#) (Project and Report) - This is the survey linked to the Qwizdom website. I encouraged users to take the survey after using the website to provide me with important feedback to better help them. In some instances the teacher taking the survey was having a problem that I could address after seeing the submitted survey. The problem I am analyzing with this documents is based on the feedback being provided by the survey. If a teacher posts a problem or request for help on the survey I am able to work out the solution. In one instance a teacher told me about a

problem she was having with her software and I was able to meet with her to solve the problem.

[Needs](#) (Instructional Design) - This document was selected because it describes the needs for an instructional program to be developed. The instructional problem is for 2nd grade students to learn how to construct a simple map and include specific elements. This artifact includes relevant information gathered in order to design a solution to the problem.

### **5.2 Criterion-Referenced Measurement**

Criterion-referenced measurement uses predetermined standards in determining the learner's mastery of objectives.

[Multimedia Design](#) (Multimedia Authoring)- This document shows the complete process for the design and development of a multimedia lesson for 6th graders on ratios. See the Objectives and Assessment Items section on page 6 to locate these criterion-referenced measurement items.

[ID Final Project](#) (Instructional Design) - This document shows the complete process for the design and development of a lesson for 2nd graders on map skills. See the Skills, Objectives and Assessment Items section on page 4 to locate these criterion-referenced measurement items.

[Software Evaluation Checklist](#) (Software Evaluation) - Within this document (page 3) is a checklist I designed to be used for evaluating software.

### **5.3 Formative and Summative Evaluation**

Formative evaluations use gathered information to determine the effectiveness of an instructional design/program and provide information to assist with further development. Summative evaluations use gathered information to determine how best to utilize the instructional design/project.

[Evaluation and Revision](#) (Graphic Design for Electronic Presentations) - This document includes a formative evaluation of trial presentation (Part 2 on page 3) that makes recommendations for revisions to the lesson. I learned that I needed to require the learners to work along with me. I also discovered I needed to create more slides and divide some of the content among these slides to present a clearer visual to the learners.

[Multimedia Formative Evaluation](#) (Multimedia Authoring) - This is a formative evaluation conducted following peer reviews of my Multimedia final project that was used to determine what changes needed to be made. Overall, the reviewers were pleased with the program and felt it would be successfully used with the intended audience. They commented on the ease of use and were drawn to the graphics and sound included. Revision suggestions based on the evaluation were to include the objective more prominently. Other suggestions were to make it clearer to the learner when the program ended and to better prepare the learner for moving to the practice websites.

[Final Report](#) (Software Evaluation) - This document is a summative evaluation and illustrates an in-depth evaluation of a web based program. This artifact gathered information that was used to make decisions about use of this program in an instructional design.

[Distance Course Analysis](#) (Telecommunication and Distance Learning) - This document is also a summative evaluation. The artifact is a review of a distance learning course. A complete analysis was conducted on the effectiveness of the designated course as well as a summary evaluation to determine how best the

material should be delivered.











#### **5.4 Long-Range Planning**

Long-range planning is the process of focusing on the group or organization and making strategic plans for the next three to five years.

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Research

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## **Definition**

Research is the collecting of data and information for the advancement of learning. It provides guidance when developing instructional design systems, interpreting data, testing our ideas and making other instructional decisions.

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## **Reflections**

The research domain was one of the most challenging for me. I've never taken statistics and I found that part of the course, Educational Research, to be very confusing. I did enjoy learning about the various research methods and having the opportunity to conduct small experiments myself. During the Learning Theories for Instructional Design class I had to complete two brief studies, one using descriptive research and the other was a correlational study. I enjoyed collecting the data, competing the graphs and analyzing the data to draw a conclusion. Those two reports are found below. Literature review and article reviews were completed during various classes during the ITMA program. I have included some of those documents. I realized it is critical in making educational designs to have used or conducted research to base your decisions about instruction. I learned how to use a variety of search techniques and educational data bases when seeking research about a question or hypothesis. I have included the Research Report prepared for the Educational Research class where I was looking to determine if there was research to determine if student learning is increased if teachers use technology to infuse their lessons instead of teaching solely with lectures. I discovered that no one medium enhances education more than another. And another concluded that the success of technology integration and student achievement rests in the hands of the teacher.

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[Creating a Lesson in Audio](#) (Digital Audio) - This document includes a literature review conducted in preparation for an audio lesson for teachers on how to connect the technology equipment installed in their classroom. My conclusion from the research was that the use of audio can greatly enhance the learning environment and thus supported my decision to use audio to enhance this lesson.

[Research and the Web](#) (Education and the Web) - Research on the effectiveness of distance learning. The article summary did not really address my question, it was more about creating a tool, the testbed, to test the effectiveness of distance learning.

[Research Audio Part 1](#) (Digital Audio) - A chapter summary about the use of auditory media in education and its merits based on available research. A review of the research findings is included. I found Postlethwaite's ATI (audio-tutorial instruction) to be the single most important and useful study in this chapter because it discusses integrating the use of audio instead of isolating it. This idea is applicable to me as an IT on so many levels.

[Research Audio Part 2](#) (Digital Audio) - An article was located and reviewed to provide me with a better understanding of the use of audio in the classroom. The

research discussed the type of learners and learning styles (kinesthetic and auditory) that need the auditory element in their instruction. The article pointed out that the addition of audio to enhance visuals would increase vocabulary and language development as well.

[Research Report](#) (Educational Research) - This is a research report conducted to gather information to determine if student learning is increased if teachers use technology to infuse their lessons instead of teaching solely with lectures. The report concluded that the answer to this question is no. The research pointed out that it is the teacher, not the style or delivery of instruction, which can best increase student achievement.

[Article Conclusion](#) (Educational Research) - This document provides the conclusion to a research article on the instructional effect of coding (black and white and color) and field dependence/field independence. Research and data was provided and I had to draw conclusions based on the information provided. Based on this information I did not feel researchers could generalize that students (in general) learn best when provided with only black and white information in text books.











[Descriptive Research](#) (Learning Theories for Instructional Design) - In the Fun and Learning II section (page 3) is the data collected (coded behaviors through observation), graphs and and conclusion of a descriptive research project on classroom management. The data illustrates that the students were engaged the majority of the time and that the majority of the teacher's classroom management techniques were in the form of prevention.

[Correlational Study](#) (Learning Theories for Instructional Design) - In the Fun and Learning II section (page 3) of this document is a correlational study comparing the number of bookshelves a person owns and the number hours of television they watch. Data was gathered, plotted using a scatter plot graph and then analyzed. I theorized that the more bookshelves one had the fewer hours of television they would watch. My graph shows there may be a loose correlation between the two variables but does not prove that one variable is causing or having an effect on the other.

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Resources

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## **Definition**

A resource is an available source of aid, knowledge, information and/or support that can be drawn on when needed.

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## **Reflections**

As an Instructional Technology Resource Teacher I find I am a valuable resource to the teachers in the building I serve. I provide them with ideas and resources to develop technology integrated lessons in their content area. They look to me for help bringing their ideas to life. It is important for me to stay in tune with the professional organizations in my field. Knowing the current standards and guidelines are critical to making sound decisions about "best practice" instruction. It is also necessary to know about the latest resources available to help make these ideas and projects happen. I have included the resources I refer to most often in the areas of professional organizations, downloads and integration resources.

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### Professional Organizations

[ISTE](#) - International Society for Technology in Education

[NETS](#) - ISTE's National Educational Technology Standards

[VSTE](#) - Virginia Society for Technology in Education

[AECT](#) - Association for Educational Communications and Technology

[ITMA](#) - Instructional Technology Master of Arts Program at Virginia Tech

[VA DOE](#) - Virginia Department of Education - Technology in Education

### Downloads

[Adobe Flash Player](#)

[Adobe Shockwave Player](#)

[Adobe Acrobat Reader](#)

[Audacity](#) - Free sound editor

[Lame MP3 Encoder](#) - needed to export MP3 files from Audacity

[Quick Media Converter](#) - a free converter for many video and audio file types

[Photo Story 3](#) - create videos using photos or images with sound (free)

### Integration Resources

[eThemes](#) - Online resources, content rich with a searchable data-base

[BBC Learning](#) - Subject area resources for teachers and students

[Rockingham County SOL K-12 Technology Integration Resources](#) - Hotlist by grade level and content area along with a customized Google search to tap all Virginia teacher created resources



[42explore](#) - A hotlist with lessons and reference resources











[NLVM](#) - Interactive manipulatives for math from Utah State

[Illuminations](#) - Interactive resources for teaching math from Thinkfinity

# Instructional Technology Portfolio

Reflection

Nancy Tatum

-  Home
-  Design
-  Development
-  Utilization
-  Management
-  Evaluation
-  Research
-  Resources
-  Resume
-  Reflection

## **Definition**

Reflection is the ability to delve deeply into recent or past lessons/events to determine changes that should be made to improve the event/lesson. During reflection you should think about what you learned from the process and how you would change the process to make it better.

## **Reflections**

Reflection is a huge part of the educational process and the ITMA program emphasized the use of this process as often as possible. I have always been a teacher that reflected after each lesson and made modifications based on those reflections. I actually find it hard to comprehend the logic of a teacher that does not reflect and revise accordingly. To me it is as second nature as breathing. My main problem with reflection is the ability to express my reflections in written or stated form. There were many opportunities during the ITMA program to practice this skill. I believe I have improved my ability to reflect "out loud" and the documents below are examples of this growth.

This program has been very rigorous and challenging to me. I have been pushed to work harder than ever before, think and reflect more than ever before and have become more self-sufficient than ever before. I have always been a lifelong learner and looked for for new ways to engage and teach others. The ITMA program taught me how to continue this learning process long after I leave the program. It taught me how to design, develop, utilize, manage, and evaluate to meet the instructional needs of the learners I work with. The program taught me how to locate information and find answers to instructional theory questions on my own through using appropriate research strategies. And I learned about the importance of reflection and the iterative process that makes the instructional process more effective with each change and modification. More personally, these past three years taught me that I can learn on my own, locate the answers, teach myself new software programs with out someone showing me. And that I can be the one showing others how it's done.

[Your Needs, the Web and Education](#) (Education and the Web) - This document is a reflection of what I learned during the Education and the Web class.

[Video Project 1 Critique](#) (Digital Video) - This document shows my reflections about the video I created about visiting the winery. and explains what worked, what didn't work and what I learned.

[Video Project 2 Critique](#) (Digital Video) - This document shows my reflections about the video on I created about visiting the pumpkin patch. and explains what worked, what didn't work and what I learned.

[Reflection Paper](#) (Digital Audio) - A reflection on what I learned during the course of Digital Audio.

[Reflection Paper](#) - Applied ID Project (Project and Report) - This document reflects

on what I learned during the development of my final project.

[Plan for Revision](#) (Portfolio Presentation and Evaluation) - A summary of my peer evaluations, listing strengths, weaknesses and suggestions for making improvements to my portfolio. Also included in this document are my plans for revision based on feedback from my facilitator.

[Applying IT to Your Professional Context - Lesson 6](#) (Instructional Technology in Context) - In this reflection artifact I describe the context required to satisfy professional needs related to my current job as an Instructional Technology Resource Teacher.

[Your Previous Approach- Lesson 7](#) (Instructional Technology in Context) - In this artifact I reflect upon how I approached instruction prior to being enrolled in the ITMA program. I based these reflections on my instructional approach as a classroom teacher.

[Your Current Approach - Lesson 8](#) (Instructional Technology in Context) - In this artifact I reflect upon how I currently approach instruction as I near completion of the ITMA program. Similarities and differences between my past and present approaches to instruction are included.

[Differences in Your Approach and a Non-IT Approach - Lesson 9](#) (Instructional Technology in Context) - In this artifact I have identified ways the ITMA program has affected me. I also include reflections and an explanation as to why I consider myself to be an Instructional Technologist.