GEORGE MASON UNIVERSITY

T/TAC Online

Performance Analysis

Immersion 2008-2009

Fall 2008

This document contains preliminary data, findings, and recommendations regarding the design and development of a prototype for the Technical Training and Assistance Center website's Online Training section.
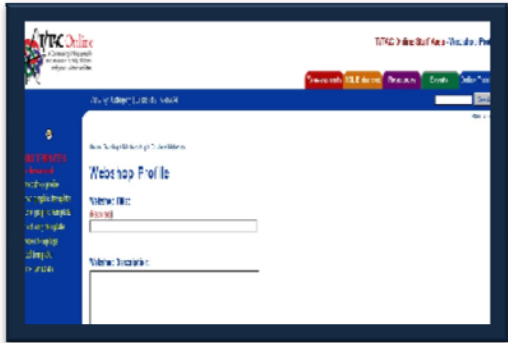
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Introduction

The Training Technical Assistance Centers (T/TAC), sponsored by the Virginia Department of Education (VDOE), seeks "to improve educational opportunities and contribute to the success of children and youth with disabilities (birth - 22 years)." The organization has professional trainers who provide face to face training throughout the state.

T/TAC Online is the expanded service which offers training, resources, events, assessment, and standard of learning information via the internet. The site has recently reported 350,000 hits per year from educators and parents seeking to gain more knowledge on how to better serve individuals with disabilities.

Webshops and Workshops

The Online Training section, of T/TAC Online, includes two self-paced training formats: Webshops and Workshops. Contributions to Online Training can be designed by VDOE T/TAC Staff as well as other professionals.

Webshop: Single training module
Presented as a collection of pages or slides
Duration: 15-30 minutes
The above picture illustrates the simplicity of the Webshop page the 2008-2009 Immersion team is charged with revamping.
Workshop
Series of training modules presented as a series of
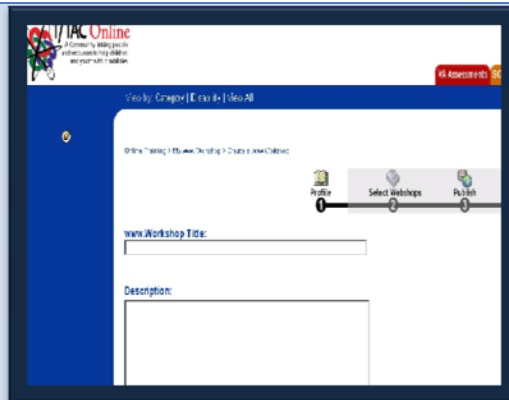
Webshops.
Training modules are related
Duration: 45 minutes to 2 hours
The image above demonstrates the structure of a Workshop and the steps involved in creating one.

Mission and Goals

The mission for the 2008-09 Immersion group is to create a modern, online training interface that provides opportunities and support for dynamic collaboration and contribution to Online Training. Optimally, this will increase the number of Webshops created and enhance the user experience.

To accomplish this mission, Dr. Michael Behrmann, Principal Investigator, Region IV, has identified three goals for this year's Immersion team:

- Create a prioritized list of 508 compliant software tools that T/TAC staff can easily use to create modern and dynamic online training.
- Create a performance support model for at least one of the software tools that does not require extensive training.
- Create a model for virtual collaboration across the state that integrates training resources.

Specifically, Dr. Behrmann recommends that the selected software should:
1. Minimize the time it takes to develop and upload a Webshop to T/TAC Online.
2. Ensure "Web 2.0" functionality.
3. Integrate easily into the current T/TAC Online system.
4. Not require significant training.
5. Provide a mechanism to allow for development across distances via virtual collaboration tools.

Phases of Analysis

Phase one

- The 2008/09 Immersion team members conducted a retrospective analysis of all related resources.
- Closely reviewed and investigated the T/TAC and T/TAC Online websites as well as the Virtual Collaboration Center (VCC)

Phase two

- Dr. Michael Behrmann and Mary Wilds met with the Immersion team.
- They shared background information about T/TAC and T/TAC Online. They also discussed the Virtual Collaboration Center (VCC) prototype.
- Dr. Behrmann and Ms. Wilds articulated their vision for T/TAC and discussed various directions for this year's Immersion project.

Phase three

- The team examined existing resources by reviewing the 2007/08 immersion team's research.
- Specifically, the team broke into four groups to take a "deeper dive" into an ocean of data on T/TAC and T/TAC Online, the VCC, the various stakeholders, and technology tools.
- We came back together to share and document our findings and to address gaps in the data.
- From this research we generated a list of questions to ask various stakeholders and generate a preliminary list of potential Subject Matter Experts (SMEs).

Phase four

- The immersion team observed and participated in a meeting of T/TAC Region 4 personnel: Mike Behrmann, Clare Talbert, Mary Wilds, Shuangbao Wang, Seunghun Ok.
- Observational data was collected which included focus on the group's interaction to provide an enhanced understanding of the T/TAC organizational culture, specifically, related to T/TAC Online objectives.
- All personnel shared their reflections of past Immersion team projects and vision for T/TAC.

Phase five

- Following the forementioned regional meeting, we met with Clare Talbert and Mary Wilds to debrief on the meeting and further discuss the project mission.
- Specifically, we clarified T/TAC trainer needs in relation to Webshop development.

Phase six

- We met again with Dr. Behrmann to clarify his vision for this year's project.
- He specified his priorities and recommendations for the project.

Phase seven

- The team met with Kim Monty and Kim Amin, 2007/08 Immersion team members, to discuss their data gathering process.

Phase eight

- The team synthesized the collected data in a single document. This document will inturn become the performance analysis.

Drivers/ Barriers

Several drivers and barriers impact the optimal performance in regards to design according to Allison Rossett's categories as outlined in *First Things Fast* (pages 38-43). They include: motivation; knowledge, skills, and information; incentives; and environment, tools, and processes. In compiling our analysis, we chose to view those categories through a "dual lense", so we could see both the driver and barrier aspect associated with those categories.

The chart below provides our findings:

	Drivers	Barriers
Motivation	• Mary Wilds, online education coordinator, and Claire Talbert, T/TAC coordinator, are both enthusiastic about this venture. They state that conference participants and staff continually ask about ways to access training resources online. • Dr. Michael Behrmann states that the site needs to be updated. • T/TAC has an AT Priority Project whose members are familiar with technology and ready to use new tools to upload contemporary Webshops.	• Interviewed parties represent only a small fraction of actual T/TAC users and have been described as "early adopters" of technology. This may or may not be the case for others. • Less than two Webshops a month are uploaded to T/TAC. • Uploading Webshops is not mandatory for T/TAC trainers and there are no incentives to do so. • Online training is the least visited tab of T/TAC Online.

Potential Solutions
- Research tools that will effectively "update" the type of media used in Webshops.
- Create videos that motivate all staff to "buy in" to the ideas of creating Webshops. These videos can demonstrate how to use the modernized template system.
- Allow individuals to receive some sort of recognition for uploading Webshops.
- Create links from other tabs to online training modules. For example, if someone is interested in an autism event, they would be linked to the autism on-line training tab.
- Create a competitive environment, for example, "Best Webshop" of the month, to encourage all staff to participate.
- Create media that explains the benefits of using new tools by relating it to specific tasks that would be performed by the T/TAC staff across the board.
- Utilize the enthusiasm of Mary Wilds and Clare Talbert to help push the benefits of publishing Webshops.
- Suggest that T/TAC consider employing a full-time Instructional Designer.

Skills, Knowledge, and Information	• The organization has a group of staff members who produce Webshops. • Students can produce Webshops as part of coursework requirements. • Staff members have a Master's Degree or above in Special Education and experience training face to face. • Staff members have at least basic knowledge of technology tools such as MS Word and PowerPoint. • Checklists and training manuals, and MS Word template have been created to assist staff with uploading Webshops.	• It is presumed that many staff is unfamiliar and uncomfortable with web 2.0 tools.

Potential Solutions

- Create just-in-time training for those uploading Webshops.
- At T/TAC Conferences, offer sessions on how to create Webshops. This is effective because T/TAC staff are already there *delivering* training.
- Introduce staff to a variety of tools systematically (New Tool of the Month?).
- Create a newsletter (like Fast Facts) that would be distributed to T/TAC staff *only* that would highlight tools, best practices, new Webshops, etc.
- Create a system to build Webshops that is intuitively usable, based on the computer-skill level of the majority of users and what they are used to seeing on a computer screen.
- Research user-interface design and practices.
- Develop the Online Training section of the VCC more fully in conjunction with the new tools.
- In the same way that the Webshops instruct educators to teach kids with special needs, create Webshops for T/TAC staff to teach them how to create Webshops.
- Suggest tools that are simple or intuitive to use when possible.

Environments, Tools, and Processes	• The organization has six staff members dedicated to maintaining, updating, and improving T/TAC Online. (Dr. Michael Behrmann, Claire Talbert, Shuangbao Wang, Seunghun Ok, Mary Wilds, and new hire). • Michael Behrmann is willing to purchase at least three tools to support this effort. • Dr. Wang and Seunghun Ok are eager to assist in integrating templates into existing site. • John Eisenberg is described by previous Immersion team members as "eager to assist in efforts". • Staff worked virtually to create Webshops in the past.	• Technologies must be able to integrate into current T/TAC system. • Staff members lack the time to create online training.

Potential Solutions

- Integrate tools that use media into the template system.
- Use tools that are compatible with all browsers, are reputable (have staying power), and don't require professional experience.
- Reduce the amount of face-to-face training and offer participants and trainers the option of participating in tele-seminar.
- Create a system that is more flexible than the current template system, but that is accessed through a simple user-interface.
- Systems designed should include fail-safes, checklists, or some other method of ensuring submissions are Section 508 compliant and that borrowed or quoted elements are cited properly.
- Tools should produce media that is compatible with current T/TAC Online system, or that is within the realm of expandability according to Dr. Wang.
- Rename Webshops and Workshops to WebClass
- Contract a graphic designer to increase the website's usability and visual appeal.
- Automated saving system on T/TAC Online, (for example, Google Docs).

Incentives	• Educators can earn recertification credits if approved by their supervisors. • The altruistic satisfaction of providing needed resources to people working with special needs children.	• There are no tangible incentives for staff to create Webshops.

Potential Solutions

- Have schools and participants send pictures or documents that used the web training.
- Highlight people on websites who upload Webshops
- Explain how effective Webshops can save the staff time.
- Make Webshops a requirement.
- Publish T/TAC activities in major educational journals.

Priorities for Support, Training & Prototype Development

Based on analysis of data collected from multiple sources, we seek to provide our client with:

1. **A prioritized list of tools that can be integrated into T/TAC Online.**
   Specifically we seek tools that:
   - -Feature video and audio capability
   - -Are accessible and 508 compliant
   - -Utilize Web 2.0 functionalities
   - -Reduce the amount of time needed to create/upload Webshops
   - -Don't require a significant amount of training
   - -Can be integrated easily into the T/TAC Online system

2. **A demonstration of those tools and associated performance support systems.**
   We want to be able to walk our client through an actual Webshop that:
   - -Demonstrates the tools we selected
   - -Emphasize user-friendliness and minimal training by providing "just-in-time" support
   - -Addresses a disability category currently included in IDEA legislation so that model can be used in an actual website.

3. **A demonstration of the use of these tools in a virtually collaborative setting** that:
   - -allows virtual communication
   - -links people and resources
   - -exposes the efforts of trainers and teachers in serving special needs students

4. **A more visual web interface** that:
   - -Decreases the amount of text on the site
   - -Shows instead of tells the user about the sites capabilities

5. **A means of enticing new authors to create Webshops.**

Recommendations and Rationale

Priorities (What)	Recommendations (How)	Rationale (Why)
A prioritized list of tools that can be integrated into T/TAC Online.	Research tools that can be utilized to produce training media.	The priority of the Immersion Team is to research current technologies and see what is available so that a recommendation can be given suggesting the best tools for the goals of this design. It is Dr. Behrmann's assertion that updating the Online Training to include modern technologies takes precedence over other needs.
	Complete comparative analysis.	A comparative analysis will inform our scope of possible solutions, prioritize the tools available, and provide support for the criteria needed to implement these tools.
	Meet with technology SMEs to determine usability of available resources.	Meeting with SMEs will increase our expertise and ensure that the selected tools will integrate into the current system.
	Conduct usability testing	To ensure that staff can use the software within the Webshop Online Training.

A demonstration of those tools and associated performance support systems.	Create a model of process and product that demonstrates how the tools will be used within the Online Training system.	This will provide the client with a concrete example that can be used for future implementation. Dr. Berhmann would like to be presented with an archetype that would increase motivation and justification for using the improved training mechanisms.
	Create a model of "just in time" performance support.	T/TAC staff are not familiar with technology and extensive training is not an available option, so additional "as needed" support is needed.
A demonstration of the use of these tools in a virtually collaborative setting	Expand on the research done by last year's team on virtual collaboration software.	Currently T/TAC staff cannot collaborate across distances. The staff has expressed an interest in being able to create Webshops with staff from other regions. Thus, the current Immersion Team needs to increase their knowledge of the tools researched and developed by last year's team.
	Develop a working prototype.	Dr. Behrmann would like to be provided with an example illustrating how this design can be executed for future development. A working prototype can provide a "real world" demonstration of the use of tools in a virtual environment.
A more visually appealing Online Training section of T/TAC Online.	Research user interface design and practice.	Research is necessary in order to learn the intricacies of creating dynamic visuals for web publishing.
	Design an input system for the Webshops that is more intuitive than the current template system.	A more attractive website would increase web use and entice users to spend more time navigating the site.
	Include more graphics and thumbnails.	To reduce the amount of text and the amount of time spent looking for a particular category.

Construct a means of enticing new authors to create Webshops	Produce media explaining the benefits of using new tools in the context of specific tasks that would be performed by the T/TAC staff.	Media is a quick way of relaying information. Staff are more likely to create Webshops if the benefits of creating Webshops are available. This can be communicated effectively if they see it in action.
	Highlight tools, best practices, new Webshops, etc.	Regular reminders and demonstrations will keep staff up-to-date on the uses of tools and creative ways to develop training modules.
	Highlight people on websites who upload Webshops	Recognition for excellence is a good way to motivate staff to continue developing Webshops as well as inspire new authors.
	At T/TAC Conferences, offer sessions on how to create Webshops.	T/TAC staff are already available to deliver training, thus, additional time is unnecessary. The more educated staff are about creating online training, the more likely they will be willing to do it. The training could be executed by T/TAC staff members who have a reputation for quality online training.

Client: Training and Technical Assistance Center

Division: Online Training

Contacts: Dr. Michael Behrmann, Principal Investigator

Mary Wilds, Distance Education, Coordinator

The team worked collectively on:

- **Data Collection and Synthesis**
- **Identification of Drivers and Barriers**
- **Development Potential Solutions**
- **Determine Recommendations and Rationale**
- **Development of Final Draft**

Individual Member Responsibilities

Heather Hampton-Barclay	Organizational Research; Pre-production Editing
Monu Harnal	VCC Research
Carl Hayes	Research on Stakeholders
Rachel Hudson	Research on Training Development Tools
Jennifer Loach	Research on Training Development Tools; Developed Phases of Analysis
Cammise McInnis	Managed Project; Authored Initial Document; Published Final Draft
John Oluyomi	Research on Stakeholders; List of Possible Training Solutions
Eric Rose	VCC Research; Developed Pre-Writing Tool; List of Possible Training Solutions

Resources

Textbooks:

1.   Beyerlein, M., Beyerlein, S., Bradley, L., & Nemiro, J. (2008). *The Handbook of High Performance Virtual Teams: A Tool Kit for Collaborating Across Boundaries*. Josey, Bass.

2.   Rossett, A. (1998). *First Things Fast: A Handbook For Performance Analysis*. Josey, Bass.

Interviews and Artifacts:

1.   Behrmann, M. & Wilds, M (August 28, 2008)

2.   T/TAC Staff Meeting (September 17, 2008)

3.   Talbert, C. & Wilds, M. (September 17, 2008)

4.   Behrmann, M. (September 18, 2008)

5.   Amin, K. & Monti, K. (September 18, 2008)

6.   Immersion Team 2007-2008. Retrieved from Edit 791 Wiki

Electronic Resources:

T/TAC Online (2008)