Using Universal Design for Accessible Multi-User Virtual Environments (MUVE) Instruction
Monday June 24 1:30-5:00 pm
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Thomas Conway Project Director

Presentation: http://tinyurl.com/EdMediaMUVE2013 Email: employ@hawaii.edu
EdMedia Workshop

This workshop will focus on using Universal Design (UD) principles and the World Wide Web Consortium (W3C) to create accessible learning environments in Multi-User Virtual Environments (MUVE). Research based on computer simulations and people with traumatic brain injury, will be demonstrated using Second Life© and a Kessler Foundation funded project demonstration site for training people with disabilities for employment related skills.
Agenda

**Introductions, Needs, Populations**
1:30 - 2:30 pm
Who we are
  - Need for Universal Design in Distance Education
Needs of Diverse Populations
  - Discussion: Common Challenges

**Universal Design, Web Accessibility, and MUVE**
2:30 - 3:45 am
CAST
World Wide Web Consortium (W3C)

*Break: 10 minutes*

Virtual Ability Island Demonstration

**Example: EmployAble Virtual Employment Center**
4:00 - 5:00 pm
Description of EmployAble Project
Pilot Study
  - Tour of EmployAble Virtual Employment Center
Introductions,
Needs,
and Populations
“EmployAble” is a model virtual reality employment orientation and support center using Second Life as a primary platform to provide training, networking, mentoring and employment resources for people with disabilities and employers.

EmployAble is funded by the Kessler Foundation and developed by the Center on Disability Studies at the University of Hawaii.
Introductions

Who we are...

Who you are...
Universal Design in Distance Education

Definition of distance education
A formal learning activity which occurs when students and instructor are separated by geographic distance or by time, often supported by communications technology.

Types of distance education
Synchronous, Asynchronous, Hybrid
Universal Design in Distance Education

Promise of Distance Education for Meeting the Needs of Diverse Learners

- Bridge barriers of distance, cost, environmental access.
- Bring together teachers and learners from diverse perspectives and cultures.
**Needs**

**Diverse Populations**

**Benefits**

- Social inclusion
- Practice and self-evaluation
- Safe and anonymous
- Targeted skill development
Needs

Diverse Populations

Benefits

• Realistic Environment
• Absence of Architectural Barriers
• Immersive
• Motivating
Needs

Diverse Populations

Challenges

For Users
- Accessibility
- Need for up-to-date computer equipment
- Need for computer skills

For Designers
- Ensuring Universal Design
- Capitalizing on interactivity
Discussion
Universal Design, Web Accessibility, and MUVE
**Universal Design**

**Universal Design** is the design of products and environments to be usable by everyone, to the greatest extent possible, without the need for adaptation or specialized design.”
Ron Mace

**Universal Design for Learning (UDL)** provides a blueprint for creating flexible goals, methods, materials, and assessments that accommodate learner differences.
Center Applied Special Technology (CAST)
www.cast.org
Universal Design

Principles of Universal Design for Learning

1. Multiple Means of *Representation*

2. Multiple Means of *Expression*

3. Multiple Means of *Engagement*
Universal Design

Examples of UDL Applications in the Online Classroom

Maximizing Representation, Expression and Engagement

Synchronous Web Conferencing Platforms
Captioning, audio description, use of multi media, participant involvement

Asynchronous Learning Management Systems
Interactive syllabus, collaborative discussion, calendars, media formats, communication, weekly assignments
Web Accessibility

**Accessibility** focuses on people with disabilities - people with auditory, cognitive, neurological, physical, speech, and visual impairments

Benefits older people, English as a Second Language (ESL) users, and temporarily disabled people
Web Accessibility

World Wide Web Consortium (W3C)

www.w3c.org

• Founded by Tim Berners-Lee, W3C Director and inventor of the World Wide Web

“The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect.”

• Goal of providing web access to everyone through internationally recognized standards.
Web Accessibility

Output Device Independence

• Screen reader useable (voice only transmission)

• Logical navigation through webpage and website (mouse free)

• Easy to read with minimal distractions

• Use of Cascading Style Sheets (CSS) for separating content and design elements
Web Accessibility

Alternative Formats

• Screen readable formatted documents (PDF)
• Logical navigation of materials
• Tagged or labeled photos and graphics
• Captioned videos and multi-media presentations
Universal Design vs Web Accessibility

**UDL**
How can the material, content and mode of delivery be improved for better learning outcomes?

**Access**
Can the learner access the material, content, & mode of delivery?
Welcome to Virtual Ability Island

Virtual Ability Island has been developed through a partnership between The Alliance Library System and Virtual Ability, Inc. The goal of the partnership is to develop an island with an orientation and training center for people with disabilities and chronic illnesses.

The entire island is accessibility-friendly for new and experienced residents and will provide ongoing training for people who want to search for and evaluate health information. Funding for this island came from an initial grant from the National Library of Medicine, and is being sustained through the generosity of individual contributors.
Multi-User Virtual Environment (MUVE)

Definition
Computer-based simulated environment where users interact with other users through graphic or textual representations of themselves utilizing textual chat, voice, video or other forms of communication.

Journal of Virtual Worlds Research [www.jvwresearch.org]
Multi-User Virtual Environment (MUVE)

Virtual World vs. Computer Simulation

Open Environment vs. Closed Environment
undefined boundaries vs. defined boundaries
Participant Controlled vs. Researcher Controlled
Real-Time - 24/7 vs. Programmable On/Off
Multi-User Virtual Environment (MUVE)

Social Interaction
Education
Business Meetings & Conferences
Research
Multi-User Virtual Environment (MUVE)

Kessler Foundation Funded Research

- Long-term memory skills improved.
- *Immersion* increased learning.
- "Improve assessment of real-world functioning."

Project Development
Second Life© Virtual Abilities Island
ADA Compliant Simulation
W3C Accessibility Compliant Web-based Module

Using the virtual environment Second Life as a platform, EmployAble facilitates employment skills training, networking, mentoring, and employment resources for both persons with disabilities and employers.
Skill Builder

"Skill Builder" enhances participant skills in areas employers have identified as critical to employment success. These include tools that allow participants to:

a. Identify current employment skills and challenges;
b. Build a resume;
c. Identify interview skills and practice in a simulated interview situation; and
d. Learn about job search techniques and tools, and look for a job using these tools.
Training Center Areas

Access Info

"Access Info" provides employers, employees and job-seekers with information for supporting hiring and retention of people with disabilities. Information exhibited in this area includes:

a. Benefits of hiring people with disabilities,
b. How to recruit and retain people with disabilities, and
C. Creating an accessible workplace. This area will also have a list of general employment resources, including resources targeting specific populations such as Veterans.
**Match Maker**

"Match Maker" is devoted to making connections between people with disabilities, mentors, and employers. This area:

a. Connects employers with employees via Social Media (e.g., Facebook, Twitter, EmployAble Blog) and email announcements;

b. Encourages application submission and review;

c. Promotes actual interviews;

d. Connects people with disabilities with successful mentors who can help guide them through the interview and employment process.
Module: Job Application and Interview

Welcome to EmployAble's Online Training Modules.

It is our goal to help prepare you in obtaining suitable employment in which you will find yourself in a career that will give you many years of employment in a field that will provide mutual benefit to you and the company in which you may work.

Once you have completed the training contained in this site, it is expected that you will move forward to the second half portion of the module and put your new learning to practice in a virtual world of interviewing practice.

You will find three quizzes throughout the module, you'll be completing here as a part of your training. They are set to gauge your initial impressions and check your progress through the module. Finally, to verify what you have learned, please do not go through the training very quickly as it has been reviewed and gathered from a range of sources to help you gain further improvement for your employment application.

Below you'll find a brief description of each tab and what you should expect to gain from the content.

Tab 1: Introduction

Tab 2: Preparation

Tab 3: The First Impression

Tab 4: The Interview

Tab 5: Job Application & Interview Quiz

Tab 6: The Power of the Question

Job Application & Interview Quiz

Job Application & Interview Quiz

Module Two:

Job Application and Interview

There are three things which make a person lose credit in a job interview. These are: when you are not confident, when you are not prepared, and when you are not able to communicate knowledgeably about your company. Here are some ideas that you may find helpful in the interview process.

1. Set your own expectations:
   - Think of the interview as a two-way street. You will be evaluated, but you will also evaluate them. Think of yourself as a customer. You are going to be looking into the company, and they are going to be looking into you. Do not be too much of a job hunter. Be yourself. Be honest. Be open.

2. Dress appropriately:
   - Wear clothes that are appropriate for the job. For example, if you are interviewing for a job in a formal office, you should wear a suit and tie. If you are interviewing for a job in a casual office, you should wear business casual clothes.

3. Prepare for the interview:
   - Know the company and their products or services. Research their business and products, and make sure you are comfortable talking about them. Know the job duties and responsibilities. Make sure you understand the job duties and responsibilities and are able to discuss them.

4. Be on time:
   - Be on time for the interview. If you are running late, call and let them know. Don't make them wait for you. It's considered rude. Make sure you are dressed appropriately and have all of your documents ready.

5. Ask questions:
   - Ask questions about the company, the job, and the interview process. This shows that you are interested and serious about the job.

6. Thank the interviewer:
   - Thank the interviewer for their time and for considering you for the job. Send a follow-up email after the interview to thank them again.

Good luck with your interview. It's a big responsibility, but it's also an opportunity to make a good impression and potentially land a great job.
Congratulations upon completing Module Two of EmployAble’s training. You’ll need to complete this Post Job Application & Interview Quiz.

Post Job Application & Interview Quiz

- This quiz should take about 20 minutes.
- Please answer all questions with the best answer.
- You are ready to continue on to the Second Life portion of EmployAble.
- Required

Please enter your first name, middle name initial, and last name initial. *

How much should you know about the company you are interviewing with? *

- Understanding the industry, the products/services, and key points about the company.
- You got the interview, you know enough.
- Read the annual report and latest news stories.
- You’re selling yourself, not your ability to memorize facts.

To reduce the stress of a job interview: *

- Take deep breaths and think about something else.
- Read a book about job interviews.
- Be prepared and do your research.
- Concentrate on being relaxed.

Plan to be at the interview: *

- Right on time.
- 1 hour early.
- Late. Guess you a sense of importance and will impress your potential employer.
- 15-15 minutes early.

Open Post Job Application & Interview Quiz.
W3C Web Accessibility Initiative

www.w3c.org/wai

Center for Applied Special Technology (CAST)

(www.cast.org)

WebAIM http://www.webaim.com

Virtual Ability www.virtualability.org

Radegast www.radegast.org
Pilot Study

Participants

• 50 adults with disabilities who are looking for a job or want to retain a job.
• At least half veterans or people with TBI.
• Have basic computer skills and access to a computer and the internet.
Pilot Study

Program
- June - August, 2013
- 2 hours/week Online
- Individual or Group Participation
- Mentoring, Social Networking, Curriculum, Resources, Practice
Pilot Study

Data Collection
- Screening and Pre-survey
- Mid-point Survey
- Post Survey
- Observations
Guided Tour

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Questions?
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