Utah State University

DigitalCommons@USU

Instructional Technology and Learning Sciences Research

Instructional Technology & Learning Sciences

Spring 2009

Instructional Architect Teacher Professional Development Handouts

Mimi Recker
Utah State University

Andrew Walker
Utah State University

M. Brooke Robertshaw
Utah State University

Linda Sellers
Utah State University

Heather M. Leary
Utah State University

Follow this and additional works at: https://digitalcommons.usu.edu/itls_research

Part of the Educational Assessment, Evaluation, and Research Commons, Instructional Media Design Commons, and the Teacher Education and Professional Development Commons

Recommended Citation

UtahStateUniversity
MERRILL-CAZIER LIBRARY

INSTRUCTIONAL ARCHITECT™

Workshop Series Overview

Day 1: Learning the Basics
- Learn how to use the Instructional Architect
- Learn about the National Science Digital Library
- Discuss quality of online resources and how to assess it
- Begin designing an instructional activity using the Instructional Architect

Between workshop activities:
1. Finish designing your instructional activity
2. Try it out with students
3. Come prepared at the next workshop to share your experiences

Day 2: Integrating Technology and Inquiry Teaching
- Reflect about your experience using the Instructional Architect with your students
- Discuss the quality of your projects
- Introduce inquiry-based activities and review fundamental approaches
- Discuss pros and cons of using inquiry activities in your classroom
- Design an inquiry activity using the Instructional Architect

Between workshop activities:
1. Design an inquiry activity using the Instructional Architect
2. Try it out with your students
3. Write a brief (1-2 page) reflection paper addressing specific questions

Day 3: Continued conversations about technology, quality and inquiry
- Continued discussion about quality of online resources and online learning activities
- Reflect on your instructional activity design and implementation experiences with the Instructional Architect in large and small groups
- Reflect on your use of inquiry in your classroom

UtahState
UNIVERSITY

DL
DIGITAL LIBRARY
CONNECT

NSF

NSDL

Day 1

1.0 Set Up
- Take the pre-survey at: **http://ia.usu.edu/survey/**. Be sure to write down your email address: _____

- When you are finished, create an Instructional Architect account:
  From the Instructional Architect homepage (**http://ia.usu.edu**), click **I Am A Teacher**, then **REGISTER**. Remember to fill in the blanks below with your registration information:

  My username is: _____

  My password is: _____

  My student login name is: _____

- From the IA home page (**http://ia.usu.edu**), click on **Browse teacher projects**, then type in the **Search keywords** box the following project id numbers:
  Bugs, Bugs, Bugs: *7389*
  Seasons: *7219*
  Race Across South America: *7392*
  How to Draw the Face: *6994*

2.0: Get Started
- Introductions
- Overview of workshop
- Pre Survey and register
- What are IA projects? We will spend some time looking at the kind of instructional materials you will be able to create by the end of the workshop

3.0 Introduction to the National Science Digital Library (NSDL – nsdl.org)
The NSDL is the Nation's online library for education in Science, Technology, Engineering, Mathematics. It provides access to over 3 million cataloged online resources.
- Explore the National Science Digital Library (NSDL.org)
- Take some time to peruse the *First Time Users* section
- Look at the differences between Search and Browse
- Find some resources that may help you address your instructional need
- Here are some useful resources in the NSDL:
  - First Time Users: http://nsdl.org/resources_for/first_time_users/
  - K12 Teachers: http://nsdl.org/resources_for/k12_teachers/
  - K12 Concept Maps: http://strandmaps.nsdl.org/

4.0 Introduction to the Instructional Architect (IA – ia.usu.edu)
The INSTRUCTIONAL ARCHITECT allows you to **find**, **use**, and **share** online learning resources from the National Science Digital Library (NSDL) and the Web in order to create engaging and interactive educational web pages for your students. It's easy and free!

In this section you'll be creating your first simple Instructional Architect project to address a need in your own classroom. You may work individually or in pairs. Follow along with the instructor as we go through the main steps.

4.1 *My Resources*
There are three ways to gather resources:
- *Search NSDL* (through the Instructional Architect)
- *Browse IA projects* (copy and use resources and ideas from other projects and link to other Instructional Architect projects)
  - ○ *Search by: Keyword*, when you search by keyword, the Project Info and the text within the project are being searched,
  - ○ *Browse and search by: Author's Last Name, Title, or ProjectID* (the last four numbers of the project web address, for example: 3352)
  - ○ *Browse and Search by subject and grade level*: again, you are searching Project Info
- *Add own resources* from websites outside of the Instructional Architect and the NSDL

4.2 *My Projects*
After you collect resources, you can then create your new IA project.
In the top menu go to "*create new project*"
Once you are in "*author project*" simply follow steps 1-5 to create your project.
1. **Pick the color of your project and the graphic** (or no graphic) that will be on the top left corner of it
2. **Add content**. You will see your resources on the left of the screen. On the right of the screen is where you can add your content.
   - ○ To add a resource in your content just click the green underlined arrows (>>>)
   - ○ Be sure to save your work regularly!
3. **Preview**. If you don't like something about your project you can go back to step 2 and fix your project. You can do this as many times as you need
4. **Publish**. This is where you can make your project available to the public, your students, both the public and students, or just yourself. You can also indicate the subject, grade level, and the relevant core content standard(s) of your project

UtahState
UNIVERSITY

5. **Finished!** On this page you can copy and paste the web address of your project, or you can email the web address to yourself

5.0 Quality Review

What do you look for in an online resource? What makes a good Instructional Architect project? We'll talk about key things to keep in mind when looking at online resources and when you create and review IA projects.

- For your use throughout the workshop, a guide for reviewing these key ideas is attached to this handout.

These projects were listed previously, but let's take a look again at some IA projects.

- Click on **Browse IA Projects**, then in the **search keywords** box, type the following project id numbers:
  - Bugs, Bugs, Bugs: *7389*
  - Seasons: *7219*
  - Race Across South America: *7392*
  - How to Draw the Face: *6994*

6.0 Time to Design

On your own or with a partner, start thinking about an instructional need or problem (activity, lesson plan, homework, small group work, etc…) coming up in your own classroom. The need should be something that you will teach or assign before our next workshop. Perhaps the state core has changed and you're now asked to go over content that your existing materials don't address. Maybe you have something that students really struggle with each time you go over it, or a topic in which you have a wide range of student ability—from those who need remediation to those who would benefit most from structured exploration.

Jot down some notes about your classroom and your instructional need:
Grade level(s) of the students:

Subject area(s) (e.g. "language arts"):

What do the students need to know (more specific terms)? (e.g. "word analysis & vocabulary development") :

Why have you chosen this instructional need?

Now, create your own IA project!
Remember, here are the steps to go through to create your project:
1. Search the NSDL for resources that might help you with your need
2. As needed, add your own resources from non-NSDL sites
3. Start building your own project, adding in your newly discovered resources

7.0 Review
*   Review IA functionality
*   **Copy Project**: You can copy a project and its resources into your "my resources" and "my projects" areas by clicking on "*copy project*." A link back to the original project will be at the bottom of your project that you create using this feature.
*   **My Resources**: You can organize your resources by different folders in the "my resources" section. You can organize your resources by different folders in the "my resources" section.

UtahState
UNIVERSITY

Between workshop activities
You have an option of receiving either 1 *USU credit at the 5000 course level, or receiving 7 re-licensure points*. If you want the licensure points you must attend all of the workshops and complete the pre-survey and post-survey. If you are interested in the USU credit you must do the same **and complete all of the between workshop activities:**
- Pre-survey (already done)
- Attend and participate in Workshop 1 (already done)
- Complete between workshop activities:
    - Create an Instructional Architect project to meet an instructional need in your own classroom. Use at least three online resources in the project. Make the project public, then use it with your students.

- Attend and participate in Workshop 2. Wednesday**, March 25 from 4pm-6:30pm**
- **Be prepared to share** your Instructional Architect Project(s), and your experiences with implementing them in the classroom.
- Complete between workshop activities:
    - Create a new Instructional Architect project. If appropriate for your content and student needs, use an inquiry based approach within the project. Make the project public, then use it with your students.
    - Write a paper (1-2 pages double spaced) reflecting on your experiences with this workshop and with the Instructional Architect. Details to follow.
- Attend and participate in Workshop 3. **Wednesday, April 22 from 4pm-6:30pm**.
    - **Be prepared to share** your Instructional Architect Project(s), and your experiences with implementing them in the classroom.
    - Complete post-survey

All workshop handouts (including this one) can be found here:
http://ia.usu.edu/viewproject.php?project=ia:6896

Questions? Email: Brooke Robertshaw brooke.r@aggiemail.usu.edu

UtahState
UNIVERSITY

DL
DIGITAL LIBRARY
CONNECT

NSF

NSDL