



Education Transfer Plan ABSTRACT

Directions:

- 1) Please fill out this form electronically by downloading it from <http://iisme.org> under Summer Fellowships, Fellowship Forms.
- 2) Save As and change the file name to **Abstract_yourlastname**
- 3) Print and attach to your ETP.
- 4) Acquire mentor signature, retain **ORIGINAL** and submit **COPY** to Peer Coach by 8/12/05.
- 5) Acquire administrator signature on ORIGINAL and submit to IISME by 10/3/05.

ETP TITLE: What's the Difference Software Teacher Training

FELLOW NAME: Sarah Jawed

FELLOW PRIMARY E-MAIL: sjawed@mail.arc.nasa.gov

SPONSOR COMPANY: NASA

MENTOR NAME: Christina O'Guinn

ABSTRACT (50 words or less:) The purpose of this ETP is to conduct a workshop for teachers on What's the Difference. The goal of the workshop would be to acquaint teachers with the program and its available data sets, and then to have the teachers build their own data sets to use in their classrooms.

ETP TYPE: Conventional

GRADE LEVEL: Staff Development

Subject: Document Format(s): Word doc PowerPoint Excel

Technology

Other:

If "Other," please describe:

Describe how your ETP aligns with NBC or State standard as stated in your proposal:

This ETP aligns with NBC Standards for Early Adolescence Science Standards: II. Knowledge of Science; III Instructional Resources; and V. Engagement. This ETP is directly aligned with California Science Content Standards Grade Five: 5.b (Earth Science) and Grade Eight: 4.e (Earth in the Solar System). This ETP can also address many other content standards in any area (English, Social Studies, Math, or Science) as other data can be provided by teacher participants.

Describe the connection between your ETP and the Summer Fellowship.

What's the Difference (WTD) is a software tool developed by the NASA Ames Technology Team to allow students to compare two objects at a time over a variety of attributes. The tool also enables teachers to build their own data sets for any topic. Data sets can include basic data, vocabulary, and multimedia. WTD is used in the curriculum I am writing for NASA Ames as a data collection and graphing tool.

Checklist for sections contained in ETP:

- | | | |
|--------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> Clearly Stated Outcomes & Standards | <input type="checkbox"/> List of Materials/Resources | <input type="checkbox"/> Hard Copy Turned In to Peer Coach |
| <input type="checkbox"/> Specific Procedure/Plan | <input type="checkbox"/> Rubric or plan for evaluating outcomes. | <input type="checkbox"/> Soft Copy Turned into Peer Coach |

I. FELLOW SIGNATURE-- Required Before August 12, 2005

I, the IISME **Fellow** named above, affirm that the ETP I am submitting is my own work, that I acknowledged sources where appropriate, and that I avoided including any proprietary information of the Sponsor Company. By my submission I am assigning to IISME my entire copyright in the ETP. I understand IISME is simultaneously granting me a license to use the ETP for pedagogical purposes.

Signature_____

Date

II. MENTOR SIGNATURE-- Required Before August 12, 2005

I, the **Mentor** named below [please select one of the following],

have read the attached ETP, and my comments, if any, appear below.

have read the attached ETP, and, as outlined in the IISME-Company Fellowship Agreement, have reviewed it on behalf of the Sponsor Company, and have determined that the ETP does not contain any Sponsor-proprietary information. My additional comments, if any, appear below.

Mentor Comments:

Signature_____

Date

Printed Name:

III. ADMINISTRATOR SIGNATURE-- Required Before October 3, 2005, submit to IISME on or before October 3 to be eligible for \$300 grant.

I, the **Administrator** named below have read the attached ETP and my comments, if any, appear below.

Administrator comments:

Signature_____

Date

Printed Name:

Industry Initiatives for Science and Math Education
IISME

Education Transfer Plan

What's the Difference?
Staff Development Workshop on NASA's Data Comparison and
Authoring Tool

Sarah Jawed

IISME Fellowship—NASA Ames

Summer 2005

Overview:

The purpose of this ETP is to conduct a workshop for teachers on What's the Difference. What's the Difference (WTD) is a software tool developed by the NASA Ames Educational Technology Team. This software allow students to compare two objects at a time over a variety of attributes. The tool also enables teachers to build their own data sets for any topic. Data sets can include basic facts, vocabulary, and multimedia. The information can then be used to compare two items side-by-side for one attribute at a time. The goal of the workshop would be to acquaint teachers with the program and its available data sets, and then to have the teachers build their own data sets to use in their classrooms.

Objectives:

The objectives of the workshop will be to:

1. Alert teachers to the existence of WTD (and the fact that it is free to download from NASA for either Macintosh or PC platforms).
2. To demonstrate the dataset-building application of WTD.
3. To have teachers build their own standards-based datasets that their students could use in their classroom.

National Board Standards:

This ETP aligns with the following NBC Standards for Early Adolescence Science:

II. Knowledge of Science

- Teacher must reasearch and gather information for data to put into the authoring tool in WTD

III Instructional Resources

- WTD is a new software tool that teachers or students can use to present information

V. Engagement.

- WTD is designed with an easy-to-use format. Definitions of vocabulary words are displayed when the mouse rolls over the term. Only two objects are compared by one attribute at a time, allowing the imformation to be managable for the students.

Resources:

Presentation system

Computers for workshop participants with internet access

CD ROM versions of WTD

Media files (pictures and videos of related science and social studies topics)

Workshop handouts and instructions (will be reproduced from attached PowerPoint Presentation.

Student Handouts and PowerPoint Lesson will also be modeled form the attached PowerPoint Presentation

TBD: Captivate demonstration of WTD Authoring tool

Connection between ETP and Summer Fellowship:

What's the Difference is a software tool designed to present data to students in a two-window format. This software is equipped with a data set on the solar system. This tool will be used in the NASA Explorer School Pre-Algebra unit to allow students to gather information on the planets and moons in the solar system. My summer fellowship position with NASA is to write the unit that utilizes the What's the Difference solar system data base.

Project Description:

- Teachers will be introduced to WTD and be given a chance to use the existing data base on the solar system
- Teachers will be asked to gather information and media files to use in their own data set on the topic of their choosing
- Teachers will be shown step-by-step how to use the authoring tool in WTD to create their own data base.

Timeline:

September 2005: Present WTD and workshop materials to Technology Team in Castro Valley Unified School District and Principal of Independent Elementary School.

October 2005-January 2006: Workshops for 4th Grade (2 hours), 5th Grade (2 hours), K-3 (30 minutes to present existing datasets), and Technology Mentors in Castro Valley Unified School District (30 minutes to go through presentation only).

February-March 2006: Follow up work workshop attendees to collect WTD data bases developed by teachers or students in the district

April 2006: Distribute teacher and student created WTD databases to schools and to NASA Ames Educational Technology Team.

Evaluation:

Teachers will be given a survey at the end of the workshop. Success will also be gauged based on the number of teachers who use the tool in their classroom and create their own data sets to share with other teachers.

Evaluation form to be given to teachers at the end of the workshop is attached. NASA Ames has also requested that their evaluation form for What's the Difference be distributed at the workshop to provide feedback to their administration.

Pending: New features will be added to WTD over the next couple of months, possibly including a graphing tool and a planetary orrey. These features will be included in the workshop presentation and handouts when they are added to WTD.

Slide
1

Slide
2

Share goals of the workshop with participants.

Slide
3

Go over schedule. Times will be allotted for each workshop session (some workshops longer than others)

Slide
4

Introduce myself and my background in the district and with this software.

Slide
5

Ask participants to share information about themselves. Will especially need to know what technology they have available to them so that I can offer adaptations or suggestions for how they can use the software.

Slide
6

Introduce the program and basic information.

Slide
7

Explain what the program does and how it presents information.

Slide
8

Teachers will now begin to use WTD with their own computers. Slides should mirror what they see on the screen.

Slide
9

Second screen that they see looks like this. They can make their own dataset, but for now, they can see how the finished product looks with the Solar System database.

Slide
10

From this menu, they click on Build Application to start the program. There is a way to bypass this step that I will need to demonstrate for the lower-grade teachers.

Slide
11

Point out basic features of the menu. Pull down bar for categories, lower menu for attributes.

Slide
12

Go over features. Categories, attribute, more information, roll over glossary words.

Slide
13

Point out other great features: Journal, Test, Optional Additional Windows.

**Give teachers 10-15 minutes to play with WTD and explore the Solar System dataset.

Slide
14

Now will walk teachers through the process of making their own dataset for teachers to use. Will need to return to Edit Mode.

Slide
15

Return to Dataset Menu, Create New Dataset.

Slide
16

Create a name for new
dataset.

Slide
17

Go over Edit Mode.
First step to enter
hypothesis

Slide
18

Type in a focus
question, what
teachers want
students to focus on
while they use WTD.

Slide
19

Return to Edit Mode.
Next step is to enter
test and quiz
questions.

Slide
20

Can use information to
create test questions.
Enter questions and
multiple choice
options. When
students use WTD
their pretest and
posttest scores are
compared and saved.

Slide
21

Return to Edit Mode,
Create Category and
Attribute lists.

Slide
22

Type in list of categories. Type in list of attributes to compare them by.

Slide
23

Continue to Dataset Grid, allows teachers to input one data point at a time. One attribute for one category. Click on one point in the grid to input the information.

Slide
24

Attach media files. Will need to explain media files—download from internet and save in Media folder. Input glossary terms and definitions. Input information.

Slide
25

Can use provided data organizer to plan a dataset. Can also give students data organizer so that they can plan their own data sets.

Slide
26

Brainstorm ideas for possible data sets that teachers or students could make.

Slide
27

Share where to download WTD.

Questions?

Comments?

Hand out evaluations. Teachers in 4th and 5th grade workshops will be able to use WTD to build their own dataset.

WTD Workshop Evaluation

| Instructional Method | Strongly Agree | Agree | No Comment | Disagree | Strongly Disagree |
|----------------------------------------------------------------------------|---------------------------|--------------|-----------------------|-----------------|------------------------------|
| 1. The presentation was clear and to the point | | | | | |
| 2. The difficulty level of the presentation was appropriate | | | | | |
| 3. The presenter was responsive to participants | | | | | |
| Content | | | | | |
| 4. The content was interesting to me | | | | | |
| 5. I will use the content of this workshop in my classroom. | | | | | |
| 6. The content was practical for classroom use. | | | | | |
| Participation Benefits | | | | | |
| 7. I created a data set that I can use with my students | | | | | |
| 8. I gained new information that is valuable to my instructional practices | | | | | |
| 9. I learned new applications | | | | | |
| Instructional Presentation | | | | | |
| 10. The pace of the session was appropriate | | | | | |
| 11. The session was well organized | | | | | |
| 12. AV materials/handouts enhanced the presentation | | | | | |
| Written Comments | | | | | |
| Indicate one thing that would have most improved this session. | | | | | |
| | | | | | |