Module 4: TPACKing for a Wild Trip

Coordinating Technology in an Educational Setting Dr. Leigh Zeitz 80 points

The goal of this learning experience is for each school team to select a subject area and TPaCK it. While there is much discussion about the process for <u>TPaCKing a subject</u>, it appears that the premise is to find the **best pedagogy** to **teach content** and then **use technology to enrich the learning experience**.

In the end, all three areas will be involved in the final experience but this is the sequence of events that makes the most sense.

This process has been made much easier to understand and complete through the work of a group of researchers including Judi Harris, Mark Hofer, Denise Schmidt and Ann Thompson. They have been perfecting the idea of Activity Types which are used to integrate pedagogy with content area and technology.

OVERALL EXPLANATION: Our exploration into TPACK will be through the use of Activity Types for you to create TPACKed projects: *Team:*

- Each team will identify a subject area for a specific grade or set of grades.
- They will identify the appropriate standards.
- They will identify the activity types and accompanying possible technologies for the each standard.
- A group report will also be created that explains what the group was attempting to do, how they approached doing it and share the results.

These standards and activities will then be operationalized by each group member.

- Each group member will be expected to create a project which will address some of the selected standards (selected by the group member).
- These projects will be "written up".

Submission:

• The work for each team along with each of the individual projects will be published on the class WikiBook.

PROCEDURES for Completing this Project.

- 1. Each team (school) will identify a subject area (e.g., social science or math) and grade level. This could be a couple of grades (e.g., 7th and 8th, or 9th-12th), but you must designate your learners' place in the chronological spectrum.
- 2. Refer to the *lowa Core Curriculum* to identify the subject skills that need to be taught at that level. If you are addressing a subject area that is not covered by the *lowa Core*, you need to find the subject-specific standards that fit your needs.
 - About ½ of you are interested in adult learning and your needs are not addressed by the *Iowa Core Curriculum*. This means that you will need to find other standards that address your needs. Even at the university level there are standards that designate what needs to be learned. If you are running a corporate school, meet with Dr. Z and he will roam the Net with you to find what you need.
 - 2. NOTE: The skills that you select can ONLY involve higherorder thinking skills. This qualification will remove lower-level memorization processes (e.g., multiplication tables) from the cornucopia of curricular opportunities you will teach.
- 3. <u>TPaCK</u> is based upon *Pedagogical Content Knowledge*. "*Pedagogical Content Knowledge* is focused upon how students understand subject matters, including the developmental appropriateness of and prerequisite understandings necessary to learn particular discipline-related ideas, concepts, and other subject matter. " (Harris, 2008)
 - 1. Return to the <u>Module 4 RWLDs</u> and review the materials about the PCK part of the model.
- 4. Identify the contextual situations and demographics of where you will be teaching these activities. This has to do with the things a teacher considers when constructing activities for teaching including students' knowledge level, resources available, amount of time available, etc.
- 5. Go to the *Curriculum-Based Activity Type Taxonomies* mentioned in the articles cited on the <u>RWLD</u> to review every type in your selected curriculum area.
- 6. Find the ones that would be most appropriate to your selected standards. After they have identified the activities, find the technologies to use. Identifying a technological systems/sites/software that will benefit this learning opportunity by presenting information/enabling students/providing tools that would not be available without the technology. You will probably find multiple technological solutions for this.
- 7. Create a page (Google, Blog, ??) that identifies the standards and some suggested Activities (and types) that could be used to teach these standards.

Creating Individual TPACKed Projects

So now you have TPaCKed your subject area at your level at your school. It is time to apply your newly-honed skills by creating a TPaCKed project individually.

- 1. Each group member will identify 1 or more standards that s/he wants to teach.
- 2. Review ALL of the activities that your group created based upon the standards and Activity Types selected.
- 3. Prune your list based upon your context. (Activity Types aren't to be used by themselves. You need to use a minimium of 3 for each Project.)
- 4. Sequence them to identify which are done throughout the lesson period
- 5. Select the ones that you would like to use with your class. Your activities need to be drawn generally from your group's list. (If you want to develop another activity go ahead and do it. You just need to add it to the activities that were created by your group. Then your individual activity will be in the group list =-)
- 6. Each educator in your group will create a TPaCKed lesson plan to teach higher-order thinking skills in your subject area. You will complete your Individual Lesson Plan using <u>lesson plan template.</u> (Thank you, Joni W for finding this template.)
- 7. Share your lesson plan with your colleagues for feedback.

Sharing Your Work

As you have discovered, the TPaCK model is widely-accepted and discussed but actual examples of TPaCKing learning experiences are not easy to find. Therefore, we must share our work with the world!!!!!

WikiBooks - are a powerful and underused venue for publishing and sharing work. As the name indicates, these are books that are published on wikis for all to see. They use the Wikipedia format. An example of publishing this way can be seen in the *Emerging Instructional Technologies WikiBook (2007)* that was published as a final project in Dr. Z's class in 2007.

Each school/group will publish a separate chapter based upon the topic the group selected.

This chapter will include two parts:

1. Group Report - Description of the process used to TPaCK the subject area selected by the group. This section needs to be insightful so that the readers will learn from your process.

2. Lesson Plans

- 1. Each of the lesson plans will be posted to share a TPaCKed product.
- 2. This will include a brief reflection by each instructional designer.