Welcome!

Welcome to the first edition of the TQOV PROJECT newsletter. The purpose of the newsletter is to share information in a printer friendly organized format. We plan on creating regular future issues of the newsletter, with the front page giving grant information. Notice dates and contact information to the left. The second page will feature a tool that we have found that we want to share with you to consider using in your classroom. The third page will be a sample, or template, of that tool. The final page will focus on the calculator and view screen materials.

Thanks again for all you do and for being here with us!

Let us know if you have any concerns regarding CRAFT or any other aspects of teaching middle/high school level mathematics. We want to be a resource for you. Whether you would like us to research a new teaching method, how to teach a particular topic, or want an additional handout, let us know so we can help you out.

We are so glad you are involved in the grant. Help us make it spectacular by responding to the feedback section below.

Oh, and Happy WASLing!

We are here for you, but need your feedback!

Would you rather receive this newsletter in hard copy delivered to your school or in a PDF delivered to your e-mail? Let us know and we can cater to individual needs.

Would now be a convenient time to schedule individual meetings? The meeting would include an observation, delivering calculator and view screen, collecting your parking lot sheet (concerns/actions), asking for a copy of your textbook so we can review it and ask for a copy of your completed “mathematics materials” survey.

Don’t have time for a meeting between now and the next meeting? No worries! If you would like, we could mail you that calculator and view screen. But we need you to e-mail us your list of concerns/actions from the parking lot sheet so we can address them. Then you could just bring a copy of your textbook and your “mathematics materials” survey to the meeting on March 27.

Any resources we could try to find for you? Give us an idea and we’ll get back to you with a few options.
Featured Tool: Semantic Mapping

What is it?

Semantic mapping (also called concept mapping) is a strategy which graphically shows concepts and relationships among related ideas and terms. Semantic maps are used to support students’ existing schema about a given concept and to link new learning, vocabulary and examples with existing knowledge. By activating students’ prior knowledge and introducing new concepts or vocabulary, semantic maps strengthen personal connection to the topic.

Semantic mapping is often used when introducing a new concept/idea at the beginning of a unit or lesson. By structured dialogue and brainstorming, the relationship(s) among related concepts and vocabulary are emphasized. Semantic mapping can be used during or after instruction as well to strengthen and add new concepts or as a review.

Why it works?

1. Semantic maps activate prior knowledge and help bridge known concepts and vocabulary with new learning
2. Semantic mapping supports vocabulary knowledge and retention. Important vocabulary can be reviewed prior to launching a new lesson/unit.
3. Semantic maps support memory and retention. Semantic maps which are displayed once completed can be referred to throughout the lesson or unit.
4. Semantic maps provide a visual model of organized ideas/vocabulary around a concept. They strengthen associations and structures for critically thinking about a concept.

Getting Started: (See pp. 77-79 in your TQOV book: Teaching Reading in Mathematics)

1. Place the major concept for the lesson/unit on the board/chart paper/overhead, etc.
2. Ask students to generate a list (words, phrases, examples, etc.) or related vocabulary or related terms/concepts from their existing knowledge that they propose are related to the major concept placed on the board.
3. Similar ideas may be grouped visually (color, similar words/ideas circled, etc.) and verbally (Example: “You have many ideas on your map about polygons. I notice that you’ve got many examples listed. What is similar or the same about all of the examples you’ve given? Good - Let’s write that down in blue - They are all closed sided and have straight sides. Let’s circle all of the examples you listed in blue too.”)
4. A final map of grouped terms is agreed upon with the students and represented visually.
5. As the topic/lesson is presented the teacher can refer to the concept map.

Variation 1:
The teacher may choose to have important vocabulary already listed on the board/map for certain topics (based upon the upcoming unit, a review of the materials, etc.). The students may brainstorm and group the vocabulary into a concept map around the given topic.

Variation 2:
A map may already be constructed which students fill during or upon completion of the lesson to demonstrate understanding and to assist students in learning. (Bos & Vaughn, 2006).

Some Resources we would like to share with you:
Visit www.inspiration.com to look at examples and software that supports concept mapping. The Rapid Fire application is a great tool for class brainstorming when using semantic mapping.
Visit www.adolescent.org (under reading strategies) for a summary on semantic mapping.

CRAFTing Connection:
Semantic maps can be applied in the C: Create Personal Connections and Motivation area of the CRAFTing framework. They also support Comprehension (A: Address and Directly Teach Comprehension) and Critical Thinking (F: Fuse Structures for Critical Thinking and Understanding).
Sample:

This sample was created using the 30 day free trial of Inspiration software.

You could always just have your students make this by hand, if desired.

Or, you could make one without the words filled in to give to your students.
Technology Information:

Contents:

The smaller box contains

- an envelope of “resources to get started” (includes TI Classroom Activities software, TI connect software, a large poster, an overhead transparency)
- manual
- 2 link transfer cables
- presentation link
- usb link
- TI 84+ calculator and batteries

The larger box contains

- a black carrying bag (inside the bag is a TI View Screen and a power adapter)

Activity:

Each newsletter will feature a different activity with the TI 84+ and view screen. For this first activity we will just work on getting everything set up.

Place the batteries in the calculator. Familiarize yourself with the various cables. Place all the materials into the black carrying bag.

Try to get the calculator to display on your overhead. You will need view screen, power adapter and calculator. Plug the adapter into the right side of the view screen (only one place it could go). Plug into any outlet. Coming off the view screen is a cord on the right side. The end of the cord is a rectangle shaped plug. Put this into the north end of the calculator (only one place it will fit). Make sure connection is snug. Place the view screen on the overhead. Turn the overhead on. Turn on the calculator. Type something into the calculator and it should project onto the overhead screen. The circle gray dial on the top of the view screen adjusts contrast. Practice adjusting the contrast and setting up and taking down the equipment.

Coming Soon:

Graphing: The Ups and Downs