# **Teaching Tips**

A Forum for discussion and tips for advancing teaching and learning at Mona

### Instructional Development Unit UWI, Mona



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### **Promoting Deep Learning in Higher Education**

### **Deep Learning versus Surface Learning**

Distinguishing between surface and deep learning has had a major impact on thinking about the need to make learners do something with the information which normally forms the basis of <u>transactions</u> between teachers and *learners*. Deep learning is mostly measured by the extent to which qualitative changes (rather than mere content memorization) occur in students at the end of learning. It involves more processing, often through discussion and reflection. Put briefly, surface learning occurs where students are too busy accepting information that they have no time or motivation to process it.

## Promoting Deep Learning with Advanced Organizers

The concept of the advanced organizer has been attributed to cognitive psychologist David Ausubel in the 1950s. Since that time the concept has been widely used in different venues of education. According to Ausubel (1978), advanced organizers may be defined as "material presented at a higher level of abstraction, generality, and inclusiveness than the material to be learned." It feeds onto the idea that information can be recalled more efficiently if it is attached to existing knowledge. Good teachers use advanced organizers to help students connect what they already know to new information they are about to learn. One way of setting up an advanced organizer is to provide learning opportunities that enable students to see the big picture up front and close with only the main ideas and the context stated. Then, as the teaching learning activities are pressed into service, the finer details are filled in. This enables the student with no prior knowledge to attach ideas to the framework that was established. An example of this can be demonstrated in teaching about the classification of rocks. Most students have no prior knowledge about rocks beyond the fact that they are hard and you can throw them at people. To create an advanced organizer you give the student the big picture on how scientists classify rocks.

#### **Special points of interest:**

- The **Teaching Tips Newsletter** is a publication of the Instructional Development Unit (IDU) at the UWI. Mona.
- The Newsletter will be published once per month and will focus on tips for improving teaching and learning in higher education. The Newsletter will be available online as well as in the office of the IDU.
- If you have an area that you would like to explore using this medium, do not hesitate to contact us at the IDU.

You can do this graphically as in the example:

	Rock	Classification
Grain		
Texture		
Minerals		
Foliation		
Layers		

You can employ advanced organizers in your teaching in specific ways. For instance you can take concrete steps to organize and motivate your students in advance. Give them a "map" of the upcoming unit, lesson, or activity that will offer a greater sense of direction for their studies. Focus on the content to be learned and the process by which it will be learned. Several distinct educational tools are available to teachers, for instance agendas, course maps, activators and connectors.



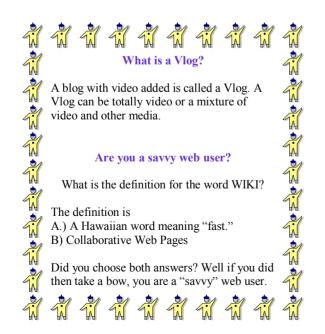
### **Agendas and Course Maps**

The agenda is a calendar of the steps the class will take and the assignments the students will receive. Agendas should be presented both visually and verbally. They help students prepare to focus on the upcoming material and to pace themselves through the activities for the day or the unit. At the unit level, agendas function as course "maps" and include the following"

- Unit tile
- Approximate unit length
- Key learning objectives
- Due dates and rationale for important assignment
- Test dates and test formats
- Vocabulary List

### **Activators**

Activators are a kind of advanced organizer designed to activate a personal connection to the lesson and to motivate students to learn more. Activators also check what students already know about a topic. We know from research into schema theory (Lazear, 1993) that the brain processes new information by associating and linking it with what is already known.



### **Connectors**

Connectors refer to those activities designed by faculty to help students identify connections between previously introduced course concepts and new ones. Research on characteristics of expert learners (National Research Council, 1999) points to experts' superior ability to make connections with old material, and their flexibility in seeing how the new relates to the old. Connectors are especially useful in helping students grasp abstract theories or processes by helping them connect these theories to something they already know. There are several relatively direct and simple ways that teachers can use connectors in the classroom. Graphic organizers such as Venn diagrams, matrices, and flow charts help students to see how concepts are connected. Analogies also help students understand a process by comparing it to something already familiar.



Instructional Development Unit Voice: 970-0376

Tel: 9271660-9 extn 2341, 2730 E-mail: <u>idu@uwimona.edu.jm</u>

www.myspace.com/idu\_uwimona

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