



A-Z University Teaching & Learning

Advance Organizer

Advance Organizer is a tool for prestructuring a course and building on learners' previous knowledge.

Short description

The Advance Organizer is a learning aid that is presented in advance which organizes the subject content. The goal of this structured depiction is to give an overview of the subject's conceptual relationships, and thus enable learners to connect the new subject matter with already existing knowledge networks. It is an interlinking of the contents presented early in the learning process, the goal being to make the basic ideas and their relationships understandable to students (Wahl, 2005, p. 125). Unlike an agenda, which gives a chronological overview of the course, an Advance Organizer visually depicts the structures and relationships of the content. Learning Landscapes ("Fachlandkarten" in German, Döring, 2008) and Knowledge Maps ("Wissenslandkarten" in German, Eppler, 2003) are related concepts that focus more on the pictorial depiction of subject-specific structures.

Method

The first step in constructing an Advance Organizer is to gather all of the relevant concepts for the topic/field and display them (e.g. on index cards). For the topic "the theory of relativity," this would include facts/terms such as "the general theory of relativity," "energy," "mass," "universal simultaneity," etc. The order is unimportant when noting down the terms. Depending on the topic, the number of terms will vary greatly. The more complex the topic, the more concepts and terms there will be.

After this gathering step comes the real and challenging work. The interrelationships of the contents have to be depicted. The most flexible method for this is the "structure laying technique" (see "Struktur-Lege-Technik" in

German). The terms are moved around until a logical structure emerges that can be regarded as an "expert structure." Mind Maps are less suitable for presenting an expert structure, as they cannot adequately show the interconnections between the various topics themselves. Once the definitions are gathered and the expert structure laid out, the Advance Organizer can be developed didactically. For this, it is useful to find analogies or examples (experiences or stories) for each of the definitions that convey the entire context. Colors, graphics, and pictures can also contribute to the illustration. Learning Landscapes ("Fachlandkarten" in German, Döring, 2008) can be considered as a form of Advance Organizer and present the conceptual structures deliberately as graphics or visual illustrations which help students to put the subject-specific structures in context.

Generating your Advance Organizer during the presentation helps students to understand it particularly well. If overhead transparencies are used, these can be placed on top of one another. If a projector is used, this also offers possibilities for a step-by-step format. One can pin the individual parts consecutively to the bulletin board, but the Advance Organizer can also emerge slowly on the blackboard or on a flip chart. The basic structure should be kept as simple as possible.

It is very important to provide students with a permanent form of the Advance Organizer, usually in the form of a copy.

Didactic functions

The basic idea of creating transparent and sustainable learning processes with so-called "organizational aids" was introduced by the psychologist David Ausubel (1974). He claims that clear and understandable introductory material facilitates learners' first steps into the respective topic. First, this reactivates the students' previous knowledge; second, it enables students to make

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meaningful connections between already existing and new knowledge; and third, it initiates understanding rather than mere memorization and recalling.

Learning objectives

- To build a bridge between previous knowledge structures, which are unique to each learner, and expert structures, which are the same for everyone.
- To offer students a better orientation of the subject matter as a whole, without anticipating the individual learning steps.
- To produce fewer misunderstandings for students by having them work towards a fundamental understanding of the topic from the very beginning.

Possible applications

As a topical overview at the beginning of a course or degree program that can be drawn on and referred to again and again in the individual learning units (e.g. now we come to "Galileo`s mechanics: how the moon falls around the Earth," which is closely related to the topic we covered last week, "Newton's mechanics: how an apple falls to Earth").

Literature

Eppler, M.J. (2003). Making Knowledge Visible through Knowledge Maps. In: Holsapple, C.W. (Hrsg.): Handbook on Knowledge Management 1. Berlin : Springer, 189-206.

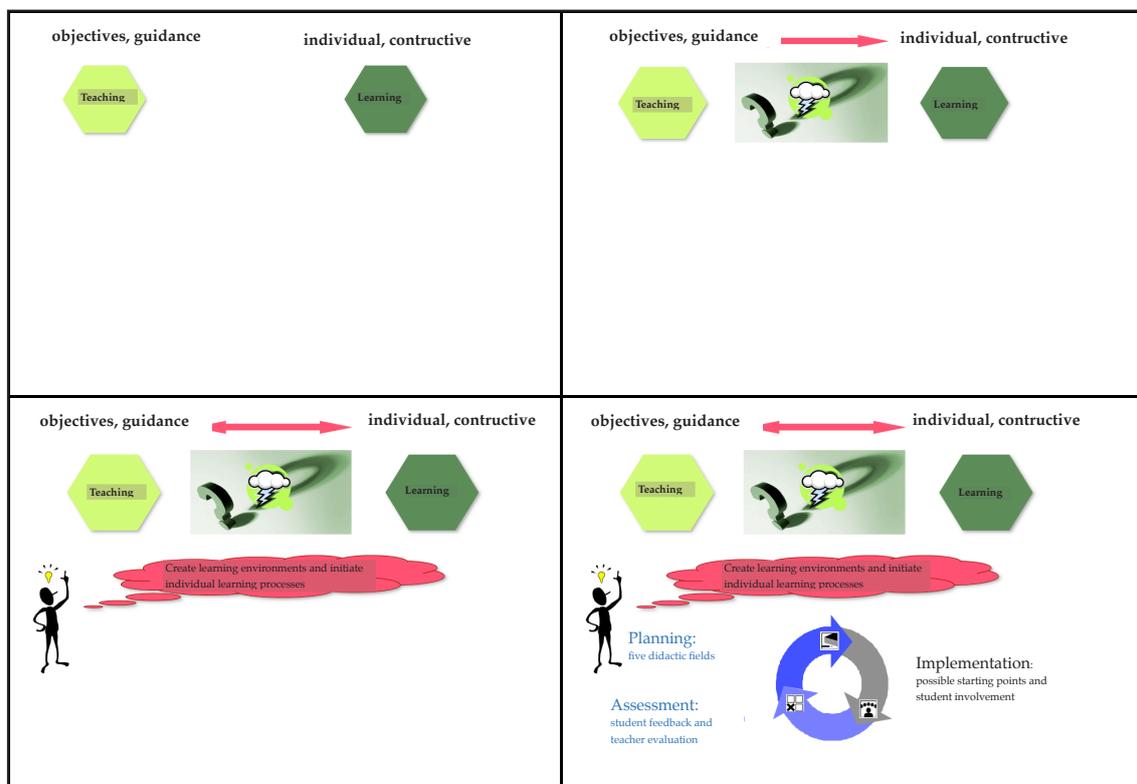


Figure 1: Example of an "Advance Organizer" from the Center for University Teaching and Learning course "Début"