

MarkQual[®]

Assessment and qualification system

Contents

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These are a set of scientific knowledge, skills, abilities, attitudes and values which the students must learn; and the teachers must encourage them in order to add them to the students' cognitive structure.

They are essential cultural forms for the development and socialization of students. The way in which to identify, select and propose them in the traditional curriculum still represents a great challenge. Today, thanks to new information processing technologies, the tasks of evaluation, diagnosis and planning are much easier, facilitating the addition of many educational contents.

There are three types of contents, which appear simultaneously and internally related during the learning process: **conceptual contents**, **procedural contents** and **attitudinal contents**.

Despite the triple learning-content-perspective, this does not mean that each content has to be treated in the three categories. It is allowed to reflect on the same content dimensions and decide the perspective and most appropriate strategy to teach the contents.

Conceptual contents (knowledge)

They collect conceptual facts and principles.

They imply relations for attribute, subordination, coordination, chance of descriptive-explicative nature and prescriptive nature.

The types of structures of these contents are principles, theories and explicative models, taxonomies and matrixes, classification systems, lists, ordered collection, etc.

Examples of conceptual contents are as follows:

- ✓ Gravity law.
- ✓ Rivers ordered by their latitudes.
- ✓ Plant taxonomy. Animal taxonomy.
- ✓ Food classes.

Procedural contents

They reflect teaching procedures and strategies.

“KNOW HOW TO DO” and “KNOW TO DO”.

These are examples of procedural contents: equation solving, arithmetic operations, handling measuring instruments (scales, test tubes, thermometers...), using specific instruments such as compasses, computers, microscopes, magnifying glasses, maps; data collection and systematization, forms of performing physical education exercises, etc.

A procedural content includes rules, techniques, methodologies, abilities or skills, strategies and proceedings; for they are a set of actions ordered by a sequence and aimed to a purpose and/or competence.

Consequently, procedural contents should be classified as follows:

- **Cognitive knowledge:** It classifies the procedural contents according to the actions to be performed, considering if they are more or less cognitive.
- **Few actions-Many actions knowledge:** This is determined by the number of actions comprising the procedural content.
- **Heuristic and Algorithmic knowledge:** It considers the degree of predetermination in the sequences order. Here the contents with an order of actions always following the same pattern approximate to the algorithmic extreme. At the opposite extreme, the Heuristic one, are those procedural contents of which actions and sequences depend on the situation to which they are applied.

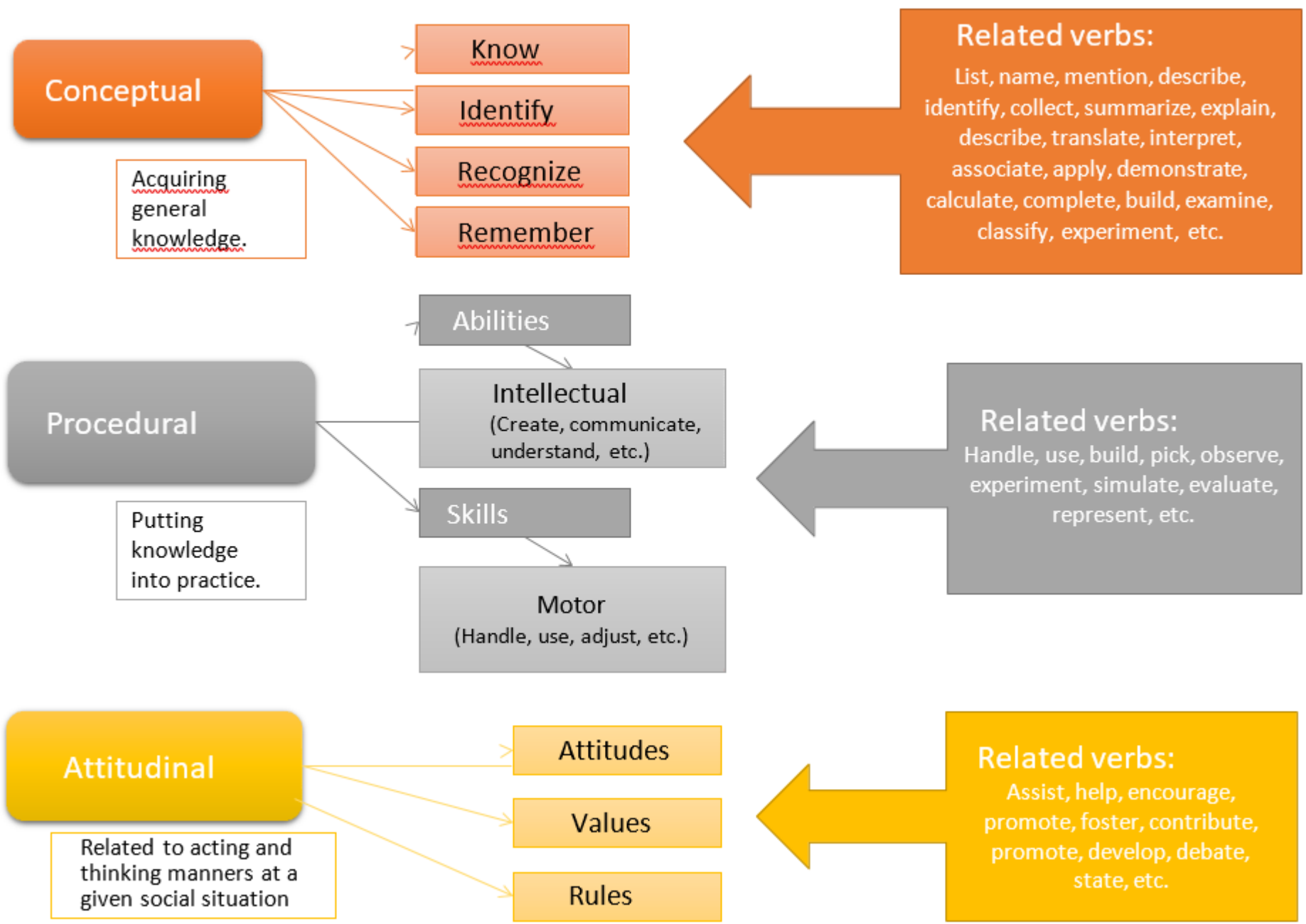
Attitudinal contents (to be)

They mark the values and attitudes.

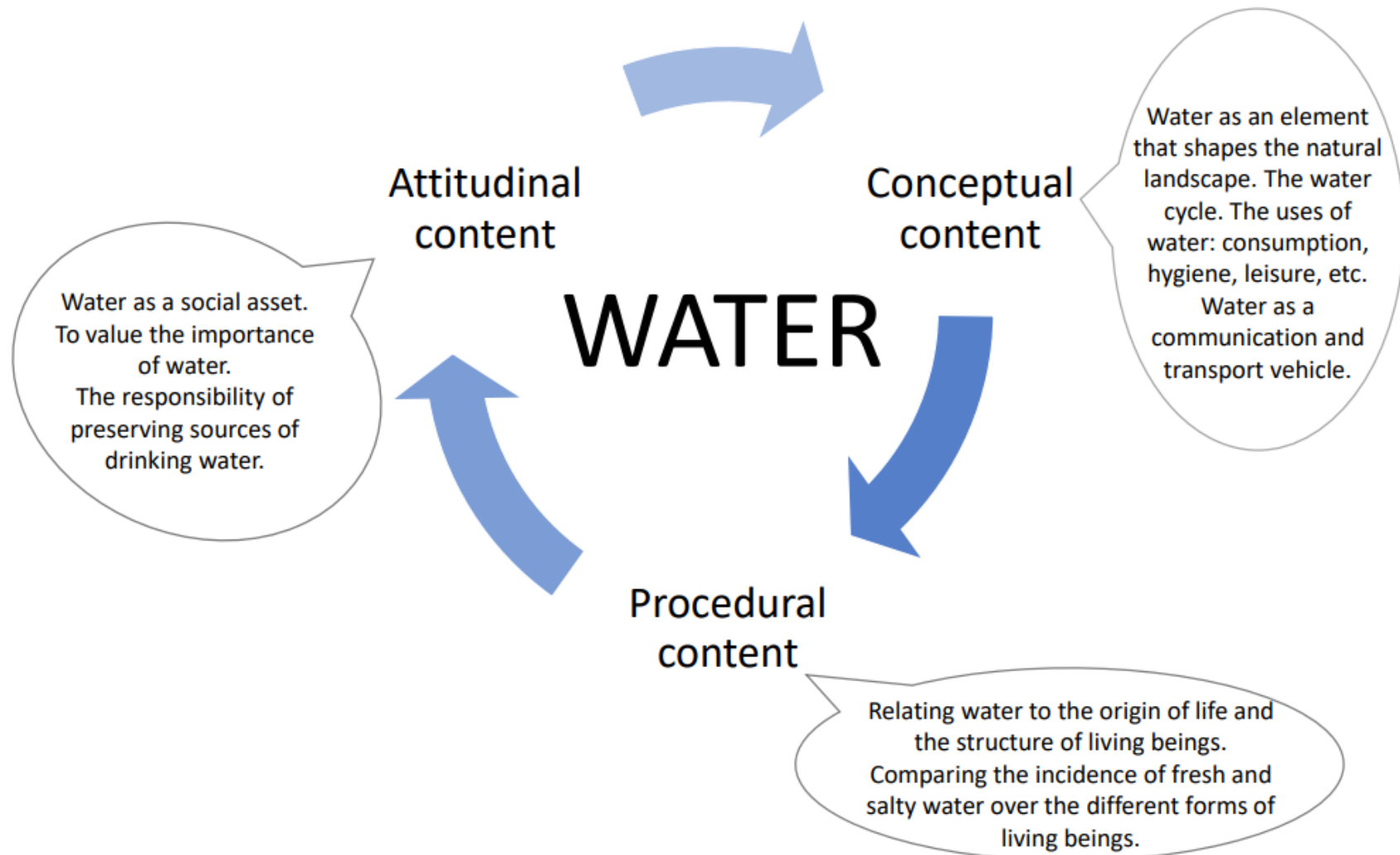
These contents refer to values comprising the cognitive components (beliefs, superstitions, knowledge, etc.); the emotional contents (feelings, love, loyalty, solidarity, etc.) and behavior components which can be observed in their correlation with their pairs. They are important since they lead the learning of other contents and make the assimilation of values by the students possible, which will consequently result in their integral training. Attitudinal contents are a series of contents which can be classified into values, attitudes and rules.

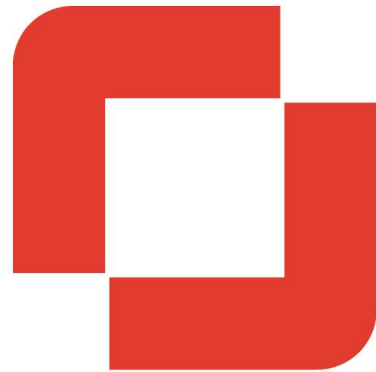
- ✓ **Values:** They are ethical principles or concepts which allow us to make judgments about conducts and their meaning. Examples of values are: solidarity, freedom, responsibility, truthfulness, etc.
- ✓ **Attitudes:** They are tendencies to relatively stable inclinations to act in a certain manner. They are the way in which a person manifests his conduct in accordance with specific values. Examples: cooperate with the group, assist those in need of help, preserve the environment, etc.
- ✓ **Rules:** They are the behavior patterns or regulations socially accepted. They indicate what can and cannot be done.

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