

## Lesson focused on the thinking processes

## Commentary to the film

"Developing cognitive functions – output phase II"

Typically, a FIE lesson starts with introducing the page and introductory discussion. It is the process of how we approach a task that we focus on.

In this video we can see the process of a **thorough introductory discussion** on the page E-1 (FIE Standard, Organization of Dots) during which the students develop their insight into the nature of the problem as well as build and realize strategies leading to the task solutions. The definition of the problems and the specific objectives of the page are identified by students.

During this introductory discussion we can see the process of developing the cognitive functions in the **elaboration phase**, particularly: ability to **pursue logical evidence**, use of **inferential-hypothetical thinking**, use of **verbal concepts that support reasoning processes**.

We can also see the use of well-developed cognitive functions, such as: clear and detailed perception; systematic exploratory behavior, well-developed verbal tools; conservation of constancies; ability to consider two or more sources of information at once; ability to integrate different aspects of reality; etc.

Communication skills are essential for the output phase. We can see the children trying to be precise and the mediator leading them towards precision and accuracy. This precision helps us in projecting virtual relationships. Focusing on precisions and accuracy also helps us in regulating our behavior.

Communicating the response may require many different modalities – sometimes we answer verbally, sometimes we write, draw or use some symbols. Increasing the number of modalities children can use is essential in mediated learning experience.

In the classroom environment greater mediated intensity is possible. The pupils mediate one to another and the teacher mediates the students and adds qualitative interaction in the classroom. The classroom climate is calm and based on mutual trust. There is no hurry and students have space for their own reflective and insightful thinking intensified by the thinking processes of their classmates.

**Reflective thinking** is closely linked to the capability of individuals to delay or even inhibit responses in order to allow a more organized, articulated and differentiated response, taking into account more related factors. Reflective thinking, as one of the sub-goals of FIE, can be produced by teacher/mediator in discussions that,



for example, deal with an investigation of the types of errors produced and specific reasons for their appearance or a search for and formulation of the most efficient strategies for successful task mastery.

Reflective thinking results in formulating the principle(s) which are then "bridged" to real life.

## **Bridging**

Following the discussion, students are encouraged to consider how the concepts, vocabulary, processes, and strategies can be applied to situations outside of the lesson itself, related to their wider experience. This transfer is critical for developing cognitive flexibility and structures of thinking. We could see the transfer of using the clue and concept of certainty.

All mental acts consist of the three phases – input, elaboration, output. They are highly dependent on each other. Obstacles in any phase may cause obstacles in another phase.

It is very important to note that distinguishing among these phases is only for didactical purposes – to help us better understand what is going on when dealing with any task. In reality, thinking is a dynamic process.