

AFFECT AND COGNITION - TWO INSEPERABLE COMPONENTS OF MATHEMATICS LEARNING

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McLeod (1992) has emphasised the central role of affects for the learning of mathematics and characterised the affective domain in mathematics education by three types of affect "beliefs", "attitudes" and "emotions". The latter are ranked in order of increasing intensity and decreasing stability. There are many approaches to linking affect and cognition and these were characterised by Evans (2000) according to four types of models. The aim of this paper is to analyse the relationship between affect and cognition on the level of the individual learner. The concept of "affect logic" (due to Ciompi (1982)), which combines the psychoanalysis of Freud with the genetic epistemology of Piaget, were employed. Within this concept, the psyche is understood as a complex hierarchical structure consisting of affective-cognitive schemata. These are the result of maturation and learning processes which are based on assimilatory/accomodatory interactions with reality. The entirety of affective-cognitive schemata form at each moment the "world view" of an individual and control further learning processes. If we regard affect and cognition as two inseparable componets of a mental unit, we are in a position to understand why we can know anything about our feelings. This type of knowlede is used in the research of beliefs and attitudes.

Roth (1996) sees the role of affects as an assessment system for thinking and acting. This aspect allows us to understand the importance of social factors for the learning process.

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