

COGNITIVE RESEARCH IN EDUCATION

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Annotation

The given article reviews the role of cognitive theory in education. At a time when knowledge has become the main source for modern innovative education and economics, in order to develop scientific and creative knowledge, cognitive research plays the main role in education. Jean Piaget could prove it in his theory. Cognitive education is education that seeks to improve the cognitive (mental) skills of the student in order that the students can lead constructive and satisfying lives.

Keywords: cognitive theory, Jean Piaget's theory, foreign language learning, teaching.

A cognitive theory of learning sees second language acquisition as a conscious and reasoned thinking process, involving the deliberate use of learning strategies. Learning strategies are special ways of processing information that enhance comprehension, learning or retention of information. This explanation of language learning contrasts strongly with the behaviourist account of language learning, which sees language learning as an unconscious, automatic process.

Jean Piaget's theory of cognitive development suggests that intelligence changes as children grow. A child's cognitive development is not just about acquiring knowledge, the child has to develop or construct a mental model of the world.

Cognitive development occurs through the interaction of innate capacities and environmental events, and children pass through a series of stages. Piaget's stages are:

Sensorimotor stage: birth to 18-24 months

Preoperational stage: 2 to 7 years

Concrete operational stage: 7 to 11 years

Formal operational stage: ages 12 and up

In this way we, teachers at school, work with concrete operational stage and formal operational stage. The stage is called concrete because children can think logically much more successfully if they can manipulate real (concrete) materials or pictures of them.

Piaget considered the concrete stage a major turning point in the child's cognitive development because it marks the beginning of logical or operational thought. This means the child can work things out internally in their head (rather than physically try things out in the real world). From about 12 years children can follow the form of a logical argument without reference to its content. During this time, people develop the ability to think about abstract concepts, and logically test hypotheses. This stage sees emergence of scientific thinking, formulating abstract theories and hypotheses when faced with a problem.

Piaget did not explicitly relate his theory to education, although later researchers have explained how features of Piaget's theory can be applied to teaching and learning. Piaget has been extremely influential in developing educational policy and teaching practice. For example, a review of primary education by the UK government in 1966 was based strongly on Piaget's theory. Discovery learning – the idea that children learn best through doing and actively exploring - was seen as central to the transformation of the primary school curriculum.

The report's recurring themes are individual learning, flexibility in the curriculum, the centrality of play in children's learning, the use of the environment, learning by discovery and the importance of the evaluation of children's progress - teachers should not assume that only what is measurable is valuable. Because Piaget's theory is based upon biological maturation and stages, the notion of

'readiness' is important. Readiness concerns when certain information or concepts should be taught. According to Piaget's theory children should not be taught certain concepts until they have reached the appropriate stage of cognitive development.

According to Piaget, assimilation and accommodation require an active learner, not a passive one, because problem-solving skills cannot be taught, they must be discovered. Within the classroom learning should be student-centered and accomplished through active discovery learning. The role of the teacher is to facilitate learning, rather than direct tuition. Therefore, teachers should encourage the following within the classroom:

1. Focus on the process of learning, rather than the end product of it.
2. Using active methods that require rediscovering or reconstructing «truths.»
3. Using collaborative, as well as individual activities (so children can learn from each other).
4. Devising situations that present useful problems, and create disequilibrium in the child.
5. Evaluate the level of the child's development so suitable tasks can be set.

The influence of Piaget's ideas in developmental psychology has been enormous. He changed how people viewed the child's world and their methods of studying children. He was an inspiration to many who came after and took up his ideas. Piaget's ideas have generated a huge amount of research which has increased our understanding of cognitive development. Piaget was the first psychologist to make a systematic study of cognitive development. His contributions include a stage theory of child cognitive development, detailed observational studies of cognition in children, and a series of simple but ingenious tests to reveal different cognitive abilities. His ideas have been of practical use in understanding and communicating with children, particularly in the field of education (re: Discovery Learning).

To summarise this article, I would like to suggest using CLIL (Content and Language Integrated Learning). CLIL is an educational approach in which various language-supportive methodologies are used which lead to a dual-focused form of instruction where attention is given both to the language and the content.

Of course, using different methods of teaching is not enough for learners to get knowledge or to become highly qualified specialist but there are a lot of reasons which affect learners' willing to study at all. So:

1. Circumstances and conditions at home.
2. Circumstances and equipment at school.

We cannot change their circs at home but school and education in common are something what could be sharpened up or improved. For instance the quantity of learners at classes and at schools is enormous which could be reduced. Moreover I would like to suggest the applying of educational system of developed countries where learners should try much to enter next grade, level or even school and parents would explain their children the importance of getting knowledge instead of marks. Primary, secondary and high schools should be in different school building. When learners study separately they can feel themselves more responsible. It is important to make learners feel responsibility for their studies.

In turn, the teachers should be competent, patient, smart, responsible, polite and of course should not carp and be arrogant towards learners. Teachers ought to improve their knowledge, skills to have rich experience, should be interested in teaching children. It is the most important thing to involve everyone in education as learners, parents and teachers to get brilliant generation.



References:

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