INTERRELATIONS BETWEEN COGNITIVE AND AFFECTIVE COMPONENTS IN CREATING THINKING CLASSROOM

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The subject of gifted education in former Soviet Society, the society with command-administrative system was never touched upon for many long years. The totalitarian regime was not in need of bright, talented persons with non-standard vision.

The idea of common and general equality both social and intellectual made everybody to be the same, without any peculiarities, of average abilities, and so the very approach to education was simplified- average curricular made by authorities from Ministry of Education, average methods of teaching - methods of prize and punishment.

So there was no need in special schools for gifted children, particular methods and ways of education, training corresponding teachers.

Our School-laboratory was founded 14 years ago as an alternative one to existing educational system. It is the first experience in brunch of Gifted Education in our country.

The main subject of our search and investigations is development of creativity. Our research has three main directions: elaboration of programs of teachers’ training, capable to work in new style, elaboration of our own curricular for gifted children of each age in accordance with their opportunities and abilities, and working out of new ways and methods of teaching.

So, first attempts of teaching complex thinking – creative, critical, analytical – creating a school-wide culture of thinking, thinking classroom were made. And the most interesting results are achieved with very young children.
Complex thinking can take many different forms. An essential element in developing a thinking culture will be explicit teaching of thinking skills to all students.

Using a variety of models in designing teaching and learning activities will encourage students to think in different ways, to apply thinking tools and strategies in everyday situations and in solving problems they encounter in the real world.

Critical or creative thinking is an outcome of educational process, practice of thinking. Even if we have a gifted student with his own original way of thinking – still he needs in particular organized process of active creative comprehension of any information, in order that the learner would be able to challenge, integrate, reconfigure, adapt or dismiss information.

Clearly this will require both a whole-school approach to the explicit teaching of thinking skills and ongoing application of an extensive range of models and thinking strategies by teachers as they create meaningful learning activities for students.

*Brainstorming technique* elaborates upon four cognitive components (and they are main features of creativity as well), such as fluency, flexibility, originality and elaboration. But to make the learning process more effective, especially with very young students we widely use affective components – feelings, imagination, natural children’s curiosity, and their readiness for risk taking.

**KEY WORDS:**

**Brainstorming** – state a problem which needs to be solved and have students brainstorm a list of solutions.

**Prediction** - students think critically as they predict possible outcomes to a set of given circumstances or a particular situation.

**Ridiculous** - make a ridiculous statement that would be virtually impossible to implement and then have students attempt to substantiate it.

**Commonality** - select two objects with little to do with each other and ask students to find points of commonality.

**Inventions** - students are encouraged to develop inventions which are constructed in an unusual manner or using unusual materials.

**Alternatives** - students list ways in which to complete a task without using the normal tools or implements.

**Question** - start with the answer, and try to list 5-7 questions which could be linked with that answer only.

**What if** - you can ask virtually any *What if* question (serious or frivolous). Students record thinking on a graphic organizer.

**Combination** - students list the attributes of two unmatched objects, then combine the attributes to create a new or better product.

**Construction** - a problem solving task that requires the creative use of limited quantities of everyday materials.
Our School for Creatively Gifted Children (SCGC) is a complex educational institution. One of its peculiarities is the structure of school – it consists of four stages:

“0” stage - 3-5 year-old students, a period of free mental, physical and emotional development
I stage - 6-9 year-old students, primary school
II stage - 10-14 year-old students, basic school
III stage - 15-17 year-old students, lyceum grades.

The idea of early teaching and educating so young students came out of reality of former Soviet society (as any educational system reflects the existing social and political system) – authoritarian kindergarten suppressed any abilities by its system of prize and punishment and strong military-like drilling.

So, achieving the “school age” of 7, many children are not only wishing to go to school but they are frightened the school, so strong is the image of enemy in their minds. Preschoolers were not encouraged to study at all and their cognitions had been suppressed by 7 years, and their psychological readiness for studying at school, for communicating with adults remained very poor.

And what about extra-ordinary kids in that case, who make their teachers be nervous and exasperate them with their curiosity and troublesome behavior? Such kids are suppressed in much more great deal.

That is why we founded quite new type of school where we use quite new approaches to educational process itself and to gifted children especially.

In our school we realize that the great importance for children’s development has a favorable educational environment, atmosphere of kindness, protection and absolute acceptance of any child with his individualities and peculiarities and difficulties, helping him to solve all his inner-personal and interpersonal troubles in the most constructive way. We liberate kids of negative emotions, aggressiveness which hampers them.

Every child is given a chance to believe in his abilities, to respect his own deals and ideas and appreciate results of his work. We induce kids to thought that their mental activity has great value.

Being in positive emotional state they become quiet, calm, opened and feel free to any kind of activity. They stop to be afraid of and reject new sorts of work – be it drawing or painting or cutting with scissors or modeling with clay or making up sentences and stories.

In such a mood children are ready to catch any new thing and information easily (and not only to catch but operate with it). They began to accelerate their coevals mentally and physically, and in accordance with L. Vygotskiy theory of approximate development they are able to learn material of higher degree of difficulty, advanced information.

The main idea of our School is the idea of free mental and physical development of children from the early age because creative abilities need freedom not pressing.
The main principle of work with such young students is the principle of psychological accompaniment of their natural development using their curiosity and desires to try everything around.

The main task at that period is to develop children’s emotions and feelings making them more sensitive and delicate.

Refining feelings and emotions, abilities to create images we realize another task – to make easier the process of teaching creative thinking, developing creativity. Not only emotions become more sensitive and delicate – the whole intellectual abilities and cognitions have been developing as well (as these components are interrelated).

For our 3-year-old students we worked out special programs for these purposes and such “school subjects” as psycho-gymnastics, drama, aesthetics, arts, games developing fine motor abilities and speech, imagination and image-seeing world, nature and human being.

Working with pretty young kids we elaborated such new methods of educating as “to live over” and “to play over” the learning material – all historical and cultural events, tales and stories, natural and scientific processes are lived over by means of feelings and images, sense perception and predictions.

Thus our children learn to read by means of visual image of words even not knowing all letters, i.e. they are suggested graphic image of short one-syllable words and children, just seeing the words for some period of time written on concrete subjects (as “WALL” written on wall) memorize the image and meaning of words and then recognize them in other context. In such a way they begin to read in early age without great difficulties.

Using a variety of models in designing teaching and learning activities encourages students to think in different ways, to apply thinking tools and strategies in everyday situations and in solving problems they encounter in the real world. Brainstorming techniques are widely used in everyday teaching.

Teaching thinking in early years we elaborates upon four cognitive components of brainstorming that evoke different forms of thinking. These four cognitive components of brainstorming (which are basic features of creativity as well) include:

**Fluency** to encourage lots of consequences lots of ideas lots of solutions lots of possibilities

**Flexibility** to encourage different sorts of ideas different directions adapting thoughts adapting ideas

**Originality** a new idea
to encourage a better idea an unusual idea

Elaboration to encourage an expanded idea a more detailed idea an enhanced idea a more complex idea

It is important to realize, that the teaching of these cognitive aspects of the brainstorming process can be extended to include an additional four elements with an affective focus.

Planning with the four affective components of brainstorming in mind teachers encourage:

Curiosity with questions like suppose that what if? where could? when might?

Complexity with questions like what reason could there be? what contributes to? what makes people?

Risk taking with questions like say why you think justify why decide and explain which is better?

Imagination with questions like how would you feel if? pretend that imagine yourself in if it were you

Including these extra components provides teachers with a framework for developing a range of activities with balance of both cognitive and affective outcomes.

As an example of such kind of activity – extended brainstorming - a table is suggested for work with 4-5 year-old students, with theme “Domestic animals”.

Early teaching thinking approach brings outstanding results. Achieving the age of 7 (traditionally “school age”) our students are very friendly and opened, they can cooperate with each other and are ready to help everybody as they have great sense of empathy.
They posses the perfect speech, developed imagination, delicate motives, cognitive interest and great wish to know and discover more and more interesting things. They can operate with words and numerals and categories.

They have some knowledge luggage as well – they are able not only to read and write, but they have acquainted with basic concepts of culture sciences, mathematician categories – solve equations, fractions, geometric problems; they can use coordinate flatness and negative numerals.

They can compose their own stories, act various parts in drama, they can discuss and have their own opinion and the most important thing – they are not afraid to speak about their views. They can say such things as: ”But that is my opinion”, or “I don’t think you are right”.
EXTENDED BRAINSTORMING

Theme        “DOMESTIC ANIMALS”

<table>
<thead>
<tr>
<th>Fluency</th>
<th>Flexibility</th>
<th>Originality</th>
<th>Elaboration</th>
<th>Curiosity</th>
<th>Complexity</th>
<th>Risk taking</th>
<th>Imagination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ask how many</strong> - ideas</td>
<td><strong>Ask how many</strong> - solutions</td>
<td><strong>Ask for</strong> - kinds of ideas</td>
<td><strong>Ask for</strong> - new or original ideas</td>
<td><strong>Ask questions that begin</strong> - what reason could there be?</td>
<td><strong>Ask questions that begin</strong> - say why you think</td>
<td><strong>Ask questions that begin</strong> - how would you feel if</td>
<td><strong>Ask questions that begin</strong> - how would you feel if</td>
</tr>
<tr>
<td>- solutions</td>
<td>- possibilities</td>
<td>- categories of ideas</td>
<td>- better ideas</td>
<td>- suppose that</td>
<td>- what if?</td>
<td>- justify why</td>
<td>- pretend that</td>
</tr>
<tr>
<td>- consequences</td>
<td></td>
<td>- types of solutions</td>
<td>- unusual ideas</td>
<td>- when might?</td>
<td>- where could?</td>
<td>- which is better</td>
<td>- imagine yourself in</td>
</tr>
<tr>
<td><strong>Name</strong> - all domestic animals you know -ways they protect themselves -places they sleep - use of them</td>
<td>How many different ways Can you group Them?</td>
<td>You have just discovered a new animal. Describe what it looks like. How can we use It?</td>
<td>Donkey is a domestic animal Is it used like a Horse?</td>
<td>If you were to interview a donkey –what questions would you like ask?</td>
<td>What makes donkey useful? What reasons make people to have domestic animals near them?</td>
<td>Explain why you think it is better to be a horse not a donkey?</td>
<td>You are a horse Tell about your life. If you were a donkey, what would you feel about your master?</td>
</tr>
</tbody>
</table>