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**TEACHING STRATEGIES FOR THE STIMULATION OF
MULTIPLE INTELLIGENCES**

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Abstract

A creative teacher leads his students` interes of creativity. To be creative, we have to analyze everything that it simple for the others to see, but to consider what no one can observe. It is important to look at the different situations from a new perspective, opting to express ideas in different forms: visual, kinesthetic, auditory, musical etc. The productive thinking means to make new combinations and connections between different things, to pair opposite things, to find similarities between things in different areas, to find what you're not looking for, to collaborate. The group`s creativity is richer than the individual one, if the goals are common. Using classroom interactive teaching strategies to stimulate multiple intelligences, students will understand how smart they are, they will gain confidence in their own strengths, become more aware of their strengths, but also of their weaknesses that they can supplement through personal ways of working with information. By reflecting on their own intelligences, students will know how to coordinate their entire cognitive approach to learning and expressing learning outcomes in a personal, characteristic way. When students understand their own learning style, the way they try to learn, then they can better control the environment they are in and can ask for exactly what they need. Evaluation should be integrated into the learning process. Students must play an active role in their own assessment.

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1. Introduction

The article aims to show how the theory of multiple intelligences can be applied in teaching-learning and assessment activities. The answers provided include references to a variety of ways, methods/techniques designed to stimulate as many individual potentials/aptitudes of students as possible. It should be noted that no teaching program can stimulate equally all nine intelligences, nor do they need to be included in one lesson. Teaching in the spirit of stimulating multiple intelligences does not radically change the way teachers teach naturally. In teaching, learning and evaluation, we should find the ways to relate with: words, numbers or logical, images, music, introspection, physical experience, social experience, experience in nature. It may be necessary to emphasize or add complementary teaching-learning-evaluation strategies that require more interactive student interaction. These strategies are designed to stimulate reflection and involvement in the knowledge process.

2. Problem Statement

Each individual possesses at least nine different intelligences (cf. H. Gardner's Theory, 1983), expressed through various learning modes and particular ways of expressing acquired acquisitions. Every person is a unique combination of development and manifestation of these abilities. For this reason, teachers can take these differences into account in their students and opt for their differential treatment in the teaching-learning-assessment process. How these stimulant dormant potentials are stimulated depend on their development and expressive manifestation. Lack of stimulation may reduce the chances of developing a certain type of intelligence, due to the fact that the corresponding brain areas remain unused, disabling, leading to a reduction in specific learning abilities. Gardner (1991) points out that these intelligences are biological potentials that develop more or less according to the opportunities and individual motivation at any age. Using the appropriate teaching, learning and assessment strategies, teachers can propose methodological alternatives to pupils, centered on stimulating different types of dominant intelligence, ensuring their differential treatment in the educational process.

Simons and Hicks (2006) have explored how using the creative arts in teaching in higher education can engage and empower individuals who learn in different ways beside the traditional forms of learning which value cognitive and verbal means of learning and assessment. They concluded that using a creative arts module in higher education, which used drama, movement, music, and visual art as teaching methods is possible to engender through the creative arts a better influence the students' learning.

The conditions and the specific situations said Claire (2012) that may lead to the development of investigative spirit of the diverging thinking, the creative and active attitudes in school, could be the following:

- Encouraging the students to ask as many questions;
- Activating of the students by their requiring to dealing with ideas, concepts, objects for its reconsideration and the issuance of new variants;
- Stimulating the cognitive independence, the spontaneity, the autonomy in learning, the constructive critical spirit and the searching of alternatives;
- Promoting the access to knowledge through own forces, stimulating the reflexive attitude on their own approaches to learn;

Starting from the premise that learning performance depends on motivation and on the degree of motivation in activity, we have to offer a wide range of experiences, including those designed to provide with an effective learning system that corresponds to the pupils intelligences.

The nine types of multiple intelligences described by Gardner (1999) are:

1. Verbal / linguistic intelligence: the ability to use language to express and understand others;
2. Logic-mathematical intelligence: the ability to use numbers and logically organize their activity;
3. Visual / Space Intelligence: the ability to retain and use images;
4. Musical / Rhythmic Intelligence: the ability to think in and through music, to recognize sounds, to keep the rhythm;
5. Body / Kinesthetic Intelligence: the ability to use the body to express and learn;
6. Social Intelligence, Interpersonal: the ability to establish relationships and understand others;
7. Intrapersonal Intelligence: Self-Reflection and Self-Knowledge;
8. Naturalistic Intelligence: sensitivity and concern to nature and the environment;
9. Existential Intelligence: the ability to reflect on human and universal existence.

The existential intelligence is half taken into account by Gardner, due to the fact that it failed to determine the corresponding brain area responsible for its activation.

3. Research Questions

How can the theory of multiple intelligences in didactic work be applied?

- The question from which we have to start is the following:

How can this information / idea / theme / notion / theory / skill in the curriculum be translated to develop multiple intelligences for students?

- The response:

Through a variety of activities and pathways / methods / techniques designed to stimulate as many individual potentials / aptitudes of students as possible (Oprea, 2009)?

It should be noted that no teaching program can stimulate equally all nine new intelligences, nor do they need to be included in one lesson. Teaching in the spirit of stimulating multiple intelligences does not radically change the way teachers teach naturally. In teaching, learning, evaluation, ways to relate to: words, numbers or logic, images, music, introspection, physical experience, social experience, experience in nature. It may be necessary to emphasize or add complementary teaching-learning-evaluation strategies that would require more interactive student interaction.

These strategies are designed to stimulate reflection and involvement in the knowledge process. A generally valid recipe does not exist, however, teachers who want to teach in the spirit of the theory of multiple intelligences can follow these steps:

1. A first step to be taken is to know and identify the students' capabilities / abilities that allow them to be remarked and which are the dominant types of intelligence.

This can be done by:

- creating pupils' observation portfolios during and outside classes;
- stimulating students to express their interests;

- creating reflexive journals in which students write their own reflections, goals, strengths, weaknesses, areas for which they would like to learn more data, information, ways they would like to learn;
- providing opportunities / activities in which to demonstrate their abilities;
- programming self-evaluation tests of knowledge and skills to develop the capacity to reflect on their own progress and to raise awareness of gaps and benefits;
- questioning pupils;

We recall that all humans possess in a unique combination the nine intelligences, in a more or less obvious way. But most people have developed one, two or even three intelligences.

2. The second step: familiarizing students with the theory of multiple intelligences. Students need to explain what this theory is and what is the specificity of each intelligence, how can it be discovered / recognized and developed. Teaching in the spirit of the theory of multiple intelligences is accomplished gradually, each day adding a new element, meant to awaken the interests of the students and to discover their talents. Also, students can be periodically stimulated to expose how their intelligences manifested themselves in formal, informal or informal activities. This helps them to become more aware of the personal psychological profile as well as that of their colleagues. Another way to familiarize pupils with the theory of multiple intelligences is to invite in the classroom a public figure that has been remarked proving the presence of certain abilities specific to intelligence: writers, artists, architects, musicians, engineers, archeologists etc.

3. The third step: students should reflect on their own potentials / capacities, aware of their combination of multiple intelligences;

4. Step four: Students should be willing / motivated to work to develop their multiple intelligences;

5. The fifth step: the teacher has to provide the framework / opportunities / opportunity in which students can manifest and develop their multiple intelligences. Students should be taught to think as a scientist, as a mathematician, artist, historian etc. In support of organizing activities based on the stimulation of multiple intelligences, teachers can use interactive teaching-learning-evaluation strategies: portfolios, conceptual maps, projects, interviews, reflective journal, case study, etc. Students have the opportunity to express their own interests, opinions, attitudes towards the material to be studied, and the way they want and can study it. Also, the teacher can establish with the student how he / she will prove his / her own knowledge, developed skills and recorded performances, aware of the fact that "it's not how smart you are, but how you prove to be smart." Thus, a constant concern of the educator should be to stimulate students to reflect on their own process of knowledge and evaluation.

In order to design a lesson based on T.I.M., the teacher can first answer to the following questions:

1. What are the operational objectives to reach students? (cognitive, affective, psychomotor)
2. Why is it important for students to study this topic? (usefulness and applicability of content)
3. What do pupils have about the theme they propose? (previous knowledge, skills, skills, abilities)
4. How can I mobilize students to participate actively in this lesson? (maintaining interest and

focusing on:

- poetry, riddle, anecdote, incident - to stimulate linguistic intelligence;
- plans, schemes, maps - to stimulate spatial intelligence;
- didactic play, case studies, logical problems - to stimulate logic-mathematical intelligence;
- interactive methods - to stimulate social intelligence;

- individual questionnaire, self-reflection, reflexive journal - to stimulate intrapersonal intelligence;
 - music, song, song - to stimulate musical intelligence;
 - mim, pantomime - to stimulate kinesthetic intelligence;
 - existential problems, critical situations - to stimulate existential intelligence;
5. What links can I make between the theme I teach and TIM? More precisely:
- How can I use the word written or spoken? - to stimulate linguistic intelligence;
 - How can I evoke personal feelings and memories? - to stimulate intrapersonal intelligence;
 - How can I motivate students to cooperate in learning? - to stimulate social intelligence;
 - How can nature bring in the hour? - to stimulate naturalistic intelligence;
 - How can I move the body and the hands of the students? - to stimulate kinesthetic intelligence;
 - How can I use sound, music and rhythm in my lesson? - to stimulate musical intelligence;
 - How can I introduce calculations, logic, numbers, critical thinking? - to stimulate logic-mathematical intelligence;
 - How can I use visual materials or color in hours? - to stimulate spatial intelligence;
6. How do I make students aware of progress? (through formative assessment to develop self-evaluation capacity)
7. How will students demonstrate personal progress (in terms of knowledge, skills)? (agreeing with the pupils the evaluation mode by which they can best demonstrate what they have accumulated)
8. How will I continue to stimulate future learning? (improved progress or compensation programs)

4. Purpose of the Study

In support of organizing activities based on the stimulation of multiple intelligences, teachers can use interactive teaching-learning-evaluation strategies: portfolios, conceptual maps, projects, interviews, reflective journal, case study, etc. Thus the students have the opportunity to express their own interests, opinions, attitudes towards the material to be studied, and the way they want and can study it. Also, the teacher can establish with the student how he/she will prove his/her own knowledge, developed skills and recorded performances, aware of the fact that "it's not how smart you are, but how you prove to be smart." A constant concern of the educator should be to stimulate pupils to reflect on their own process of knowledge and evaluation.

5. Research Methods

We determined which are the most commonly used methods that activate and develop at least one multiple intelligence:

- group discussion, collective conversation, debate, brainstorming, teaching-learning, thinking hats for stimulate verbal / linguistic and interpersonal intelligence;
- problem for logical-mathematical and verbal / linguistic intelligence;
- experiment, demonstration stimulate kinesthetic, mathematical, intrapersonal intelligence if the student works individually and interpersonally if the student works in groups or in pairs;

- the exercise of composing a song of a text stimulates verbal, musical, intrapersonal or interpersonal intelligence;

- conceptual maps use spatial / visual, logical-mathematical, verbal / linguistic, interpersonal and / or intrapersonal intelligence;

- the method of dramatization develops verbal / linguistic, musical, spatial, body / kinesthetic, interpersonal intelligence;

- the drawing / graphic / poster creation exercise is based in particular on spatial / visual and verbal / linguistic intelligence;

- the essay stimulates at least two intelligences: intrapersonal and verbal / linguistic;

- the simulation uses verbal / linguistic, interpersonal, body / kinesthetic intelligence,

- portfolios stimulate the following types of intelligence: verbal / linguistic, spatial / visual (in terms of writing and using visual instruments, like colored pages, markers, drawings, illustrations, photographs, cover) chronology, positioning on the page), musical (if it contains audio recordings), intrapersonal (through self-assessments and reflections on proposed goals and results, in-depth topics, newly discovered interests), interpersonal (for group activities) to the extent that profound questions are proposed).

6. Findings

A creative teacher leads his students` interes of creativity. To be creative, we have to analyze everything that it simple for the others to see, but to consider what no one can observe. It is important to look at the different situations from a new perspective, opting to express ideas in different forms: visual, kinesthetic, auditory, musical etc. The productive thinking means to make new combinations and connections between different things, to pair opposite things, to find similarities between things in different areas, to find what you're not looking for, to collaborate. The group`s creativity is richer than the individual one, if the goals are common.

Whenever we fail in our search, we get a totally different result, so a new one. Random creation requires us answers to the question "What did we actually do?" This is the first step in the creative act. Learning is based on this very principle of searching through trial and error, the latter being useful for the way ahead. The mistake should not be condemned but acknowledged. Leading scientists have reached remarkable discoveries, first passing through the irrelevant ones. The random associations are a challenge for the mind which is in a permanent search for connections.

Students were also asked about what emotional status are they when come to school and what do they like to do?

Their answers are interesting and can be a source of inspiration for those who want to take them into account. They said:

"WE LIKE:

- to ask questions, not just to answer them;

- to have challenges to help us think and communicate;

- to wonder and to doubt everything that provokes us;

- to have the courage to try new things and joke;

- to be creative, to imagine how different things can be done, to propose new ideas;

- to take risks with responsibility and to make mistakes from which we learn, and this should not stop us from our research;

- to think independently, but to work together;

- to collect data through all senses;

- to enjoy the nature, the beings, the things, the relations between the people that inspire us;

- to know and express our emotions not just knowledge. "

Because we challenged them, these students, not stop to continue saying:

"We dislike the explanations, instead of the practice,

We dislike heuristics, instead of patience,

We dislike the criticism, instead of encouraging,

We dislike orders, instead of getting closer,

We dislike judgments instead of empathy,

We dislike rejections instead of communication,

We dislike suspicions, instead of trust,

We hate indifference, instead of enthusiasm!"

7. Conclusion

In conclusion, using classroom interactive teaching strategies to stimulate multiple intelligences, students will understand how smart they are, they will gain confidence in their own strengths, become more aware of their strengths, but also of their weaknesses that they can supplement through personal ways of working with information. By reflecting on their own intelligences, students will know how to coordinate their entire cognitive approach to learning and expressing learning outcomes in a personal, characteristic way. When students understand their own learning style, the way they try to learn, then they can better control the environment they are in and can ask for exactly what they need. Evaluation should be integrated into the learning process. Students must play an active role in their own assessment. That is why the teacher has to tell them what they expect from them (the goals) and jointly determine how they will be evaluated (how they can best prove what they have learned). Active involvement in the assessment increases the degree of reflection and awareness, leading to better self-knowledge and self-esteem. This motivates a new learning.

What do pupils look for when they come to school?

Look for authenticity, emotion to study real and useful things, understand and be understood, the confidence that I can and the feeling that we care about them, their needs, their interests, their desires, and that school is the environment in which you go for be better to discover and learn what you can do with your multiple intelligences to learn to love nature, things, people, relationships and yourself.

What does the school offer?

A place of unloving, with fears and stress, non-encouraging words, stateless hours in a desk, a lot of theory and practice, boredom, tests, evaluation and not learning, textbooks inconsistent with the curriculum and time lost in hours, open spaces, civil servants, coldness, indifference, endless means, and endless road.

What can we do?

Let's begin to practice unconditional love, being aware that education with love is the highest form of training; to be enthusiastic, because enthusiasm is pungent and the teacher is obliged to convey not only knowledge but also the emotion of studying in a certain field; to look with the same respect for the little ones as the great ones, recognizing in each divine seed the need for opportunities for development; to understand that the change we want from others must first appear in each of us and that we are obliged to give all that we can, because we ask and so we will receive!

References

- Claire, C. (2012). Into another world: From creativity to creative learning. in *Improving Schools, SAGE journals*, 15, 116-129,
- Gardner, H. (1999). *Intelligence Reframed. Multiple intelligences for the 21st century*, New York: Basic Books;
- Gardner, H. (1991). *The unschooled mind: How children think and how schools should teach*. New York: Basic Books.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books;
- Oprea C.L. (2009), *Strategii didactice interactive [Interactive didactic strategies]*, Bucuresti: Editura Didactică si Pedagogică;
- Simons, H. & Hicks J. (2006). Arts and Humanities in Higher Education, *Sage Journals*, 5, (1), 77-90. .