

## Enhancing Learners' Interest by Implementing Multiple Intelligence Theory

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**Abstract:** Learners' interest is agreed by most of the educators to be significant for effectiveness of teaching and learning process. However postmodern society becomes more and more tranquilized or overactive (depending on the person) because of hundreds of information, pictures and others attacking people's minds. Therefore gaining students' attention and then attaching it to the subject becomes more and more difficult. The article makes an attempt to answer the question *What is the role of Multiple Intelligence in enhancing learners' interest level?*

**Key words:** multiple intelligence, interest level, young learners, effectiveness.

*The whole secret of life is to be interested in one thing profoundly and in a thousand things well.*

Horace Walpole (1717-1797)

### 1 Introduction

The level of learner's interest has been found by many scientists (for example Renninger, McDaniel et al., Tauer – Harackiewicz, etc.) to be extremely important in the process of teaching and learning. Especially concerning its influence on attention, reaching goals or levels of learning, is emphasized by many authors (Hidi – Renninger, 2006). Although it is recognized as a rudimental condition for learning, educators struggle with uninterested students, not knowing how to help them develop their interest. Apparently postmodern reality makes educators' life more and more difficult and requiring great effort, teenagers ignoring authorities, as well as thousands of pieces of information for an hour, millions of pictures attacking students' minds, noises and many other factors independent of teachers' control, those are components of a modern reality that educators have to wrestle with. Some of those tired, often resigned educators may ask if there is a possibility of enhancing interest or is it lost cause (teachers often surrender competing with computers, internet, television or other media). Therefore this article is an attempt to prove there is still the chance to raise interest level (or a better word might be to grow, comparing interest to seeds) by means of Multiple Intelligence Theory. Results of a research on putting into practise MI theory, while working with young learners in a traditional Polish school system are to be presented below. However, before providing further details about possibilities and results of implementing MI theory into the practice of teaching, background information on the MI theory and conceptualization of interest is reviewed below.

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## **2 Background**

Interest is a psychological state of being engaged with particular classes of objects, events or ideas over a specific period of time (Hidi – Renninger, 2006). According to the neuroscientific research, interest includes affective and cognitive components as separate but cooperating systems. The affective component is understood as positive emotion accompanying engagement and cognitive aspect relates perceiving and representing information accompanying engagement (LeDoux, 2000). Nevertheless, interest is also an interaction between a person and particular content and it is very often encouraged or depreciated by the nearest environment (Krapp, 2000).

In the context of teaching methods there are two most important types of interest: situational and individual. Individual, concerning personal preferences and predispositions and situational, related to affective reaction to presented action, information, activated by educational situation designed by the educator. The situational interest is based on environmental stimulus and it positively influences cognitive performances as well as the individual interest (Hidi, 1990). What is more, it focuses attention, enables integration of information and enhances the level of learning, positively impacts recognition and effort (Hidi – Renninger, 2006). Thus the solution can be Multiple Intelligence Theory.

The theory of multiple intelligences created by H. Gardner (1993) may be the mean of increasing either individual or situational interest. For ages, the intelligence has been found to be a single inviolable capacity which is a special property of human beings not equally given to everyone. Therefore people can be ranked as less or more clever, smart or intelligent, or those who should or should not start academic career (Gardner, 1993). Nevertheless, this attitude has been found to be wrong as IQ does not assure success. On the contrary, H. Gardner presents the idea of relatively autonomous human intellectual competences, called multiple intelligences. Seven following types of intelligence are introduced by H. Gardner (however according to the author of MI theory it is an open collection) (Gardner, 2002):

- Linguistic intelligence, which is one of the most appreciated in the traditional education system. It involves interest, sensitivity and special skills or capacity to spoken or written language significant for actors, poets, lecturers, teachers, public speakers and writers.
- Musical intelligence, considers skills in performing, composing and appreciating musical patterns, it is believed to often accompany logical-mathematical intelligence. Rudimental for instrumentalists, singers, conductors, orators, writers and composers, etc.
- Logical-mathematical intelligence is responsible for the ability to analyze problems logically, carry out mathematical operations or solve problems and it is commonly appreciated by teachers. It is also often indentified with general ability to think or with fluid intelligence.
- Spatial intelligence provides recognizing and using patterns of space, and imagination to project space, moreover it is an ability to visualize thoughts, words, spaces etc. It is significant for painters, sculptors, architects and drivers.
- Bodily-kinesthetic intelligence is a potential to know and use one's body consciously. It is typical for actors, acrobats, sportsmen, pilots, builders, police-officers, fire fighters and surgeons.
- Interpersonal intelligence is understood as capacity to recognize and emphasize intentions, feelings or motivations of other people. It is rudimental for cooperation or team work, therefore for all the types of work where contact with clients or teamwork is necessary, for example teachers, managers, counsellors, politicians, managers and social workers;
- Intrapersonal intelligence entails the ability to understand and appreciate oneself, which is a key competence for the success, whatever the occupation is. However it is particularly important for philosophers, psychologists, counselors and members of clergy.

As H. Gardner (1993) believed it is an open collection, two more have been recently added: naturalistic intelligence, providing great interest and capacities in nature and existential intelligence understood as spiritual or religious intelligence. Each of those intelligences not only helps to choose future path of education or vocation, but also determines content interest and the style of learning presenting some level of particular intelligence means having some set of features or abilities, which are the strong side of a student. This information can be used to plan learning strategies, as well as the whole process of education.

Applying multiple intelligence theory into practice entails teaching and learning based on learning strategies, specific for each type of intelligence. Therefore the model of intelligence must be recognized and teaching process in a classroom has to be organized adequately to the students' needs, form and style. Next chapter presents conditions and results of the research on applying MI theory into practice in traditional Polish school.

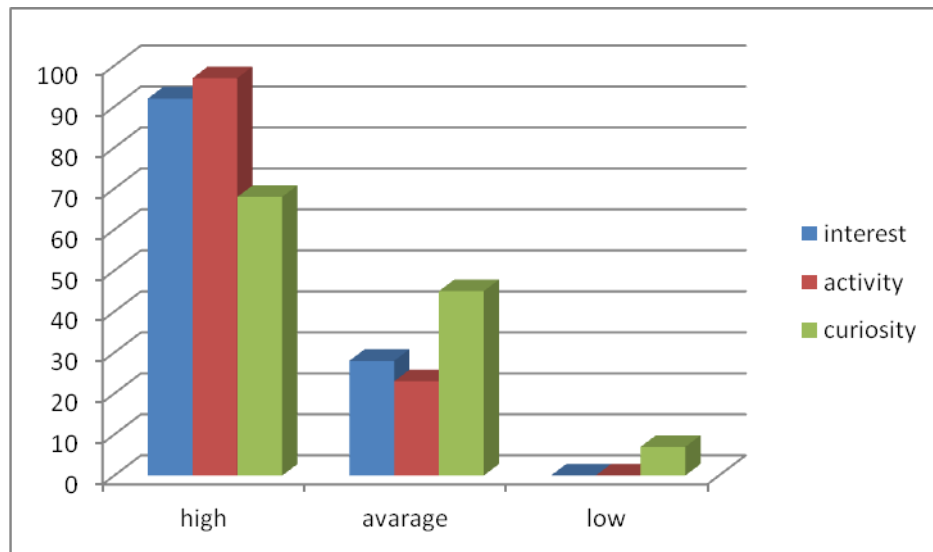
### **3 Research**

The research on implementing MI theory into teaching young learners is aimed at investigating its influence on effectiveness of teaching, considering individualized teaching as well as improving students' interest. The methods of the research were the pedagogical experiment, pedagogical test, observation and opinion poll. Two experimental groups took part in the research, both counting fifty students, aged 9-10 years old, moreover 150 teachers of grades 1-3 took part in the opinion poll and 120 hours of lessons applying MI theory were observed.

However many practitioners have tried to put a soul into the theoretical skeleton, most of them, like for example B. Campbell (1991), decided to rearrange not only methods, forms, but also organization of classes as well as classroom space. Polish traditional school functions in class-lesson system, with quite strict curriculum, supported by external tests, and accompanied by quite low expenditure. Therefore organizing special corners or centres of learning would be impossible, because of the financial and organizational aspects. Owing to that fact, the experiment was based on discovering students' profiles of intelligence, consequently their strong features, and organizing teaching according to strategies of learning specific for each type of intelligence. Strategies used in the experiment are fully described, inter alia, by E. Arnold (2007), but had to be adapted to Polish language and curriculum (it was the matter of different orthography, grammar, social and mathematical content of curriculum). Each of the students was examined and observed to find out his or her profile of intelligence (understood as a set of intelligences, presented on different levels, in most of the cases one was leading), and received a set of methods of learning compatible with their needs. Teacher planned each lesson to use strategies, methods and resources for each of the intelligences, including rhymes, songs, games, etc. Students were examined with a pedagogical test twice, at the beginning and at the end of the research, which proved growth of teaching effectiveness. Despite that fact, the results of the observation are the most significant for the subject of this article.

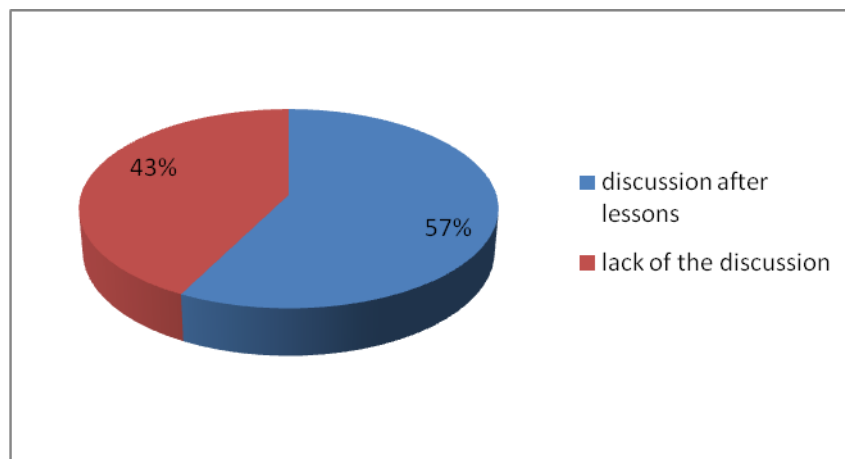
As mentioned before, 120 hours of lessons were held and observed in the tested group. The main subject of interest was the students' behaviour during and after classes. Four aspects were the matter of observation – students' interest, curiosity, activity and appearance of the discussion after classes. Those variables were chosen as they are believed to be rudimental for personal and content interest. Profiles of intelligence are fundamental as they often determine abilities and interest, in general or in a particular content. The results of the observation are visible in the figure below.

Figure 1 *Occurrence of interest, activity and curiosity during the lesson*



During 81% of the lessons time, high level of students' activity was observed and 19% of lessons were on the average. High level of interest was observed in 76% of the lessons, average level in 24% of the lessons. There was no case of lack of interest, which is considered to be a success, especially among young postmodern learners. During 57% of the lessons a high level of curiosity was observed, 38% lessons evoked average curiosity, and during 5% of the lessons curiosity was not observed at all. These results proved not only the improvement of effectiveness, but also enhancing learners' interest by implementing MI theory. Another factor was the occurrence of discussion after the lessons, in 57% of lessons a discussion without teachers' participation occurred.

Figure 2 *Occurrence of discussion after lessons*



Interviews with students also proved that teaching based on MI theory is easier and more interesting for young learners. Parents were also glad to receive information how to help their children learn in an effective way. It seems the individualization can be the key to success.

## Conclusion

To begin the conclusion, an allegoric story about an animal school, written by M. J. Stein (Gajdzica, 2005, p. 18) will be presented: Long, long time ago animals went to school. They were taught to run, swim, fly and climb. Whatever the animal, it had to learn to do the same activities in the same way. The duck was very good at swimming, even better than the teacher. It was quite good at flying, but it did very poor at running. Therefore the teacher made the duck stay longer after lessons to practice running, and consequently it was always too late for swimming lessons. After few months duck became average at swimming and satisfactory at running. Being average is highly recommended at school, so everybody, except of the duck were glad. A rabbit started its education as a top student at running, but making up difficulties at swimming contributed to nervous breakdown and the rabbit had to leave school for special treatment. A squirrel was the best at climbing, but the teacher forced it to fly of the top of the tree. Practicing this skill was so exhausting that soon the squirrel became only satisfactory at running and climbing. While the digging was forbidden at school and not included into curriculum prairie dogs had to find private tutors for their children. At the end of the school year a retarded eel, who was average at all subjects, became the best student in the school.

This story is an outstanding, humorous parallel to the traditional education system in which abilities, interests, preferences, styles of learning, types of intelligences are not important, and the best student is the average student, as he or she does not cause any problems to the teacher. It is commonly known that the individualization of education is necessary. However, knowledge and practise do not always go in pairs. Despite an undoubtedly important role of the curriculum, it is necessary to teach in different ways, to organize didactic process differently, according to students' needs and including their personal interests.

As it has been mentioned in the background, interest can be enhanced by:

- positive emotions accompanying the process of teaching and learning,
- developing students' interest, where interaction between the person and the content is important,
- environmental stimulus.

Therefore the concept of multiple intelligences is a possible or even, as it might be believed, a necessary solution. First of all, the best remedy for enhancing positive emotions is the positive climate of a class and the positive attitude to learning. Concerning the climate, B. Campbell (1991) proved in his research that the improvement of climate is possible by means of implementing MI theory. On the other hand it is commonly known, as well as proved by neuroscientists, that positive environmental stimulus during the learning process ensures positive emotions and results (LeDoux, 2000). This positive environmental stimulus can be provided by H. Gardners' theory, owing to methods and resources of teaching and learning adequate to students' expectations.

Secondly, supporting interest development is remarkable in MI theory, as it encourages students' advantages. What is more, teaching and learning based on individual features, contributes to the interaction between the learner and the content, by reaching the goals in a respective manner and finding their paths to successful future. And last but not least, implementing MI theory maintains stimulus specifically chosen for the recipient, which not only arouses interest but also optimizes creating engrams in students minds (Buzan, 1999).

To sum up, it has been proved that implementing multiple intelligences theory into educational practise improves quality of teaching according to the results of the research. It provides either situational or individual interests and consequently arouses cognitive performance. Hence the first and the fundamental responsibility of a teacher/educator is to lead, or guide the child in the world of science and to show that learning is an interesting adventure waiting for them which should last forever. And only those who can handle such great responsibility can call themselves TEACHERS.

## Literature

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