THE IMPACT OF MIND MAPS ON PUPIL'S ATTITUDE AT PRIMARY SCHOOLS TOWARD EDUCATIONAL PROCESS

[VPLYV MENTALNYCH MAP NA POSTOJE ZIAKOV PRIMARNEHO VZDELAVANIA K EDUKACNEMU PROCESU]

Rebeka Stefania Kolenakova

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Abstract
This article disserts on pupil's attitudes at primary schools toward educational process. The main thesis of this article is usage of mind maps and its contribution to an educational system. The objective was to identify differences among perceptions of the educational system by pupils, who use mind maps and pupils, who are not using them in a learning process. From the survey results, we have described perceptions and attitudes of pupils to the educational process of primary education.

Key words
mind maps, mapping, primary education, pupils, perceptions, attitudes, the educational process

Anotácia
Príspevok pojednáva o postojoch žiakov primárneho vzdelávania k edukačnému procesu. Predmetom sú mentálne mapy ich využitie a prínos vo vzdelávaní. Naším cieľom bolo identifikovať rozdiely vnímania edukačného procesu žiakmi využívajúcimi mentálne mapy a žiakmi nevyužívajúcimi mentálne mapy v edukačnom procese primárneho vzdelávania. Z výsledkov prieskumu deskriptívne opisujeme vnímanie a postoje žiakov k edukačnému procesu primárneho vzdelávania.

Kľúčové slová
mentálne mapy, mapovanie, primárne vzdelávanie, žiaci, vnímanie, postoje, edukačný proces

Introduction

In present-day, there are some new methods in education, which have been developing through the years. These methods should be corresponding to needs of a future generation; it has to mind the creation of positive attitude of a pupil to education. At a time when a teacher is not only referee of truth, but the facilitator as well. This referee should help its pupils during the construction of their internal knowledge system. Therefore, the teacher has to take care of process not being a constraint, on the other hand- it should be interesting. That is why a teacher should use proper methods to develop pupil's maximum personal potential. While the pupils are active participants in the educational system, they build structures of knowledge without repeated explanation and stereotyped listening. Active pupils, who use mind

maps in the educational process appear to be the first effective step not only to learning but also to improve their perception of teaching.

Mind maps

A map is such a useful tool, which helps to concentrate in many circumstances. Through these maps, we know how to be properly oriented in a certain area. In educational process, a map has another meaning. It helps us to be oriented in content and in a hierarchy of selected topic (Novakovova, B., 2015). This is a way how we can bring the thinking to a certain area and our location in that area into sight; it shows relations among different places. Mind maps are symbolic, imaginative or made of thoughts, conceptions or terms. Mind maps are considered as tools to help while studying (Fisher, R., 1997).

With this statement, there are more authors, who agree, like a T. Buzan (2007, 2011), who points out that mind maps are one of the best organizational tools of our brain. He compares mind map to plan of the town, which should help to our memory. Several authors give them different names Ľ. Osuska and B. Pupala (1997) work with them under the name conceptual maps, they define them as schemes of a conceptual frame of the concrete conceptual field. Drafts of pupils should include concepts and hierarchy among them.

For the time of many centuries, imaginative methods have been used. Thanks to these methods, people have marked their knowledge. With a thought of easing of the learning process through the illustrations and relations among them and with the invention of mind maps, there is a name connected - J. D. Novak (1979). Professional ambitions in a field of mind maps in Europe had appeared before, thanks to German teacher O. Richter (1965) and Czech psychologist V. Kulic (1971), who had worked with structured lessons (in Mares, J., 2011).

Mindmap is determined as a visualization of concepts and connection of relations among them. The denomination of relationship between concepts may be one-way or two-way. We can divide concepts. Hence approaches of mind maps show causes or time-relations between certain concepts. This concept of the map is used mainly in the creation of ideas and suggestion of complex scheme, it helps in a learning process and using of recently gained as well as foregone knowledge into the cognitive structure (Jonassen, D. H., Beissner, K., Yacci, M. A., 1993).

The concept of mind map appeared at the beginning of 80's 20th century with opportunities to use and apply them in nurture and education toward the care of the environment. In a field of anthropogeography, the mind maps have been used by authors A. Hynek and J. Hynkova (1982), later on, P. Radvani (1985). We can meet with mind maps in psychology as well, in M. Strizenec's works (1982). Z. Ruiselova (1986), M. Sedlakova (1992) or E. Naništova and D. Podlucka (1996) have used these mind maps after them.

As the Pathfinder is considered T. Buzant (2007, 2011), who describes knowledge about brain hemisphere with the aim to highlight using of mind maps against other methods. Mind maps can be used in different fields, according to the author, it may have several forms and applications, besides

nurture and education and it may be used in planning, engineering, and other fields.

Based on present and available literature, we can claim that in a field of mind mapping and mind maps there has appeared significant movement, even in our territory under given conditions. In present times, there are some examples of people, who are really into this topic, e.g., B. Pupala and Ľ. Osuska (1997), R. Fischer (1997), J. Mares (2001), J. Doulik and J. Skoda (2011), D. Gunisova and J. Duchovicova (2015), D. Gunisova and N. Kozarova (2016) and others.

Mind mapping has been used in education as one of the methods, which is adding value to the educational process. Through this process, imagination, thinking, memory, learning process, a motivation of pupil is increased. Moreover, a whole educational process is much easier. Pupils are actively participating in education, elaborating and thinking of new ideas. Pupils are forced to think about new information, interpretation of them and hierarchization into own topic, then into mind map as well.

Mind maps are a great acquisition to the educational process, mainly in making easier and more effective work of pupils, who have problems with verbal communication. Pupils have to analyze, understand, hierarchize and effectively organize their knowledge. These things avoid mechanical studying. Pupils are aware of topic and thanks to the comparison; their cooperation is supported in a learning process (Gunisova, D., Kozarova, N., 2016).

In general, mind maps are used while making notes, studying(better memorizing), mapping of ideas, dealing with several problems(concentrating on concrete topic) elimination of mental deprivation. They help gain a better overview of the problems, show the interconnections and their using in real life.

Attitude

Man can create his attitudes toward everything that is around him; to the art, things, religion, and people and even to his own. One may have attitudes only to existing things in his world, in his sight. If a man has an insufficient number of incentives and experience, his world is limited, and then, all concepts do not have to mean something, be developed enough, or they do not exist at all. It is a mistake if we ask pupils to tell us some attitude to something and he has not met with them (Dubravova, V., 2014).

Krecht, D., Krutchfiel, R. S. a Ballachey, E. L. (1968) state that a certain subject in our sight exists, but it does not have to throw off anything. It does not mean that man has had to create an attitude to it.

M. Nakonecny (1999) defines a statement of attitude as an evaluating relation toward social objects of reality. It is an evaluation of object done by a man or a group of them. Every attitude has its own intensity, on the scale of very positive to very negative.

Attitude is defined as a disposition of man to the evaluation. It means readiness to assume any relation to reality, which we percept (Dubravova, V., 2014).

Boros, J. (2001) defines attitude as quite long-term characteristics, which describe its point of view to a certain field. Attitude shows basic knowing orientation, the structure of values and focuses on ambition at the same time.
It means that attitude we have may be different to many things, such as things, event, people and himself as well. It is a certain relationship (we like or love it or the opposite of these attitudes). As we have the attitudes, we behave according to the (recoil, achieve it, etc.) when we take the determinant, from this point of view, we can say that behavior of a man is influenced by his attitudes (Oravcova, J., 2010).

Attitudes and opinions of man to school and the educational process may be influenced by many factors, such a talent, motivation, family, schoolmates, methods used in teaching, a behavior of teachers and other pupils and at last, but not least, the atmosphere in the classroom. Negative attitudes do not have to be necessarily outputs of school's impact or educational system, but as well impact of surroundings, media, lifestyle, etc. (Kolesar, J., Herich, J., 2010).
Attitudes of pupils and students are an actual problem, with which many authors are dealing, as for example Prokop, P., Tuncer, G., Chuda, J., 2007; Broggy, J., McClleland, G., 2008; Kubiatko, M., 2011 and col. Research of these attitudes are connected with the educational process of several subjects, mainly interactions of teacher and student to each other and the relation to the educational subject.
Kolesar, J., a Henrich, J., (2010) have been dealing with these problems in pupils attitudes. They have been concentrated on attitudes of pupils to state and non-state granted schools and educational process. Authors came up with that statement that pupils of non-state granted school tend to attend the school more likely than pupils of state granted schools (76,2 % : 59,8 %) of second-grade pupils at primary school and students at secondary schools. The statistical difference has been significant. In the interest of content of lessons, relations to studying, seeing its practical view and attitude to teacher have not been found out that significant differences. It means, that situation evaluated by these aspects is quite similar in state and non-state granted schools
Like us, Bernath, R., and Kochova, H., (2013) also focused on changing their attitudes towards the chosen subject through IKT method, confirming the interest of pupils in this way of teaching and their changing attitude towards subject and education through modern technologies.
Broggy, J., McClleland, G., (2008) were concerned with mind maps and change of attitude. They were focused on the concrete subject (physics), and main studies show that attitudes of students at universities to physics have improved after studying with mind maps.
It can be seen that attitudes of pupils and students are one of the main focuses of several authors, we mentioned only a few of them. For our study, we decided to mention only those, who are engaged in attitudes of pupils at primary schools to mind maps. It is well known that mind maps are part of effective educational methods, on the other hand, it is not known how these attitudes have been changed or even if they have been changed in the minds of pupils.

The impact of mind maps on pupil´s attitudes to the educational process

The aim of our study was to identify the impact of mind maps to pupil's attitudes at primary schools and to the educational process. From the mentioned aim, we have found relational research problem.

Research problem: What is the impact of mind mapping on pupil's attitudes at primary schools to educational process? From this problem we found out the hypothesis:

H 1: We assume that pupils, with whom the teacher during the education used mind maps, have the more positive attitude to school and educational process than pupils, with whom the teacher didn't use mind maps

While we were interpreting the attitudes of pupils to the educational process, we used scale questionnaire, where we wanted to identify one opinion to teaching and studying with mind maps and then, the education.

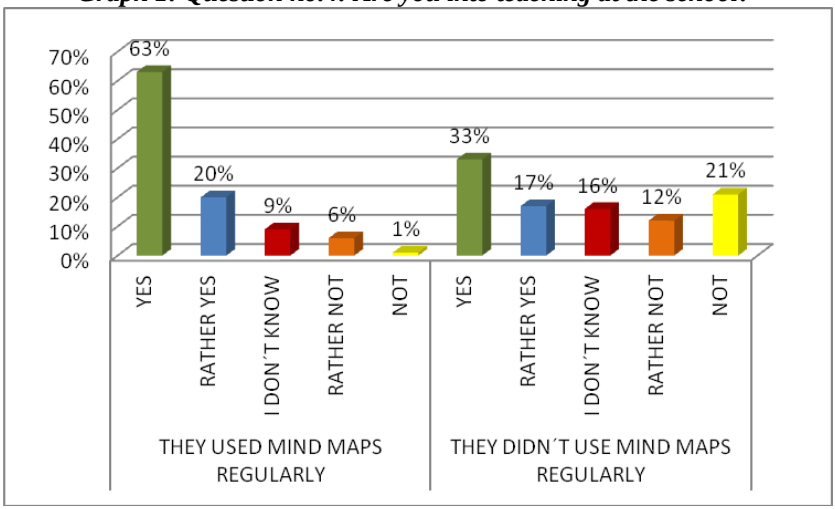
We were focused on pupils at primary schools. A sample of research was done designedly, and it was because of the selection of primary schools in Nitra, Trenčín and Banská Bystrica region. At these school, pupils had have been studying with mind maps. In the research, we were focused on the first grade of primary schools, to be concrete on the third and fourth year, taking into account that pupils are usually adapted enough, a content of studies is quite deep, and their ability to write and visualization is at a quite high level. The scale questionnaire has got answers from 182 respondents to eleven questions. Some of them were adjusted for each group of pupils, because pupils, who do not use mind maps do not have to be aware of these terms.

Interpretation of researched questions

In the questionnaire, we have examined how much pupils use mind maps, whether they know this term, what they think of making these maps, how they do mind maps (colors, imagines) and is they have already show off with them. We asked pupils, whether they remember more when using mind maps or when learning by heart; and what method they enjoy more. For the need of acknowledgment, we used question number 4, 7 and 8.

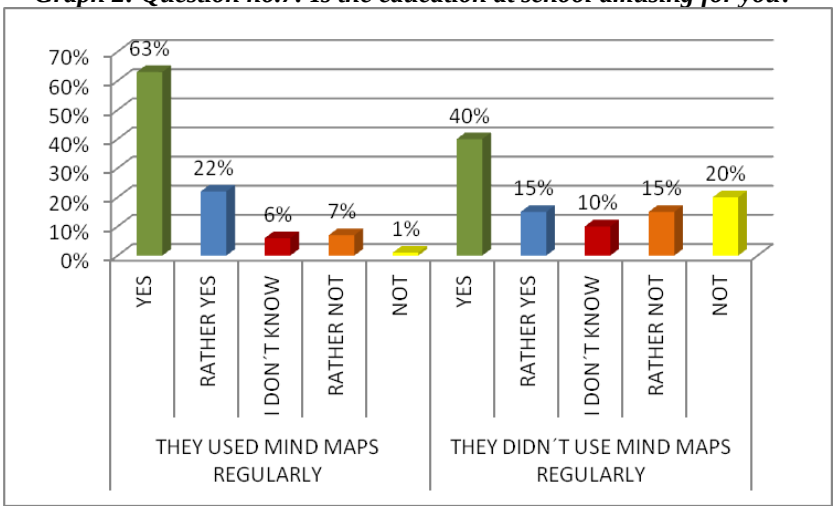
Gained answers we executed and analyzed through Excel and methods of descriptive statistics. Evaluation of questionnaire is graphically summarily pointed out, we analyzed outcomes based on the respondents' answers to certain questions, and answers can be seen in following graphs.

Graph 1: Question no.4: Are you into teaching at the school?



In the first graph, we can see that 63% of asked pupils regularly cooperating with mind maps were into teaching and 20% of them inclined to this answer as well; the rest, 16%, claimed that they don't know mind maps or don't know to decide. In a group of pupils, who do not cooperate regularly or neither cooperate with mind maps, just 33% of them claimed that the enjoy education and 17 % of them inclined to this answer; the rest, 16% didn't know to answer the question, and 21% claimed that they are not satisfied with education and 12% inclined to this answer as well.

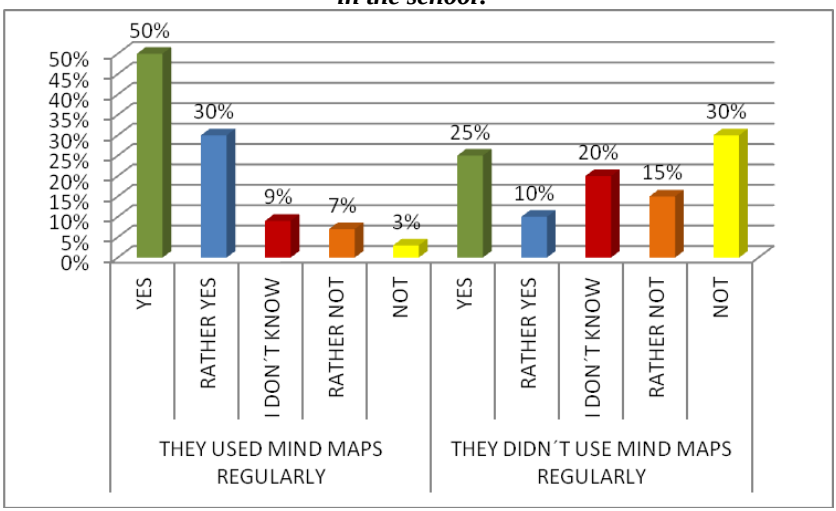
Graph 2: Question no.7: Is the education at school amusing for you?



In the second graph, we can see that 63 % of asked pupils regularly cooperating with mind maps were into education and 22% inclined to this answer, the rest of 14% claimed that they do not know. In a group, where

pupils do not regularly cooperate with mind maps, 40% of them told that they were into education and 17% inclined to this answer as well, another 10 % didn't know to answer this question, 20% claimed that education is boring and 15% inclined to this answer as well.

Graph 3: Question no.8: Are you looking forward to school when you create and learn with mind maps? Are you looking forward to an education in the school?



In graph no. 3, we can see that 50% of asked pupils regularly cooperating with mind maps look forward to school, when they use mind maps and 30% inclined to this answer, another 9% claimed that they do not know and 30% do not look forward to these lessons; the least 7% inclined to this answer as well. In a group of pupils, who do not regularly cooperate with mind maps, 25% of them claimed that they look forward to school and 10% inclined to this answer as well, another 20% didn't know what to answer, and 30% claimed that they do not look forward to school, 15% inclined to this answer.

Conclusion

Implementation of mind maps into the educational process may make the education more effective and activation of pupil's participation at the lessons, their level of knowledge and educational process. Moreover, the implementation of mind maps may change the core of perception of the educational process.

By this we do not want to suppress the traditional method of education, the study shows off the positive attitudes to the perception of the educational process for pupils at primary schools. Pupils became participants in the educational process; they considered studying as entertainment and relaxation. On the other hand, there is an over-explaining, which can lead them to be bored, pupils usually do not understand while listening and they attention goes to another thing.

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Mgr. Rebeka Štefánia Koleňáková
Katedra pedagogiky, Pedagogická fakulta
Univerzita Konštatntína filozofa v Nitre
Dražovská cesta 4
94974 Nitra
Slovakia
rebeka.stefania.kolenakova@ukf.sk