THE EVALUATION OF THE ROLE OF TEACHING AIDS IN STIMULATING PUPILS’ ACTIVATION IN GEOGRAPHY

Tamara Višnić*, Ljubica Ivanović Bibić*, Smiljana Đukićin Vučković*, Andelija Ivkov-Džigurski*, Eva Konečnik Komnik**

* University of Novi Sad, Faculty of Sciences, Department of Geography, Tourism and Hotel Management, Novi Sad, Serbia
** University of Maribor, Faculty of Philosophy, Maribor, Slovenia

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Abstract: This paper discusses the methodological procedures of application of teaching aids through the subjects: World around us, Nature and Society and Geography, as well as an adequate choice of teaching resources that encourage students to earn a permanent knowledge. The idea is to use teaching aids in active teaching and to turn it into the practical use of the material, in order to efficiently adopt the fundamental knowledge about the nature of science in the classroom teaching. The procedures are identified, which are especially important from the point of maximum achievements in teaching the use of teaching aids, and especially significant for subjects the World around us, Nature and Society and Geography. The aim of this study was to determine the importance of teaching aids in active teaching, as well as whether the student becomes a mentally active participant in the educational process using teaching aids. The study involved class teachers (154) who evaluated the importance of teaching resources for permanent adoption of knowledge of students. In addition, the survey was analyzed and different types of learning resources in terms of their values in the activation of thinking in students were analyzed as well. This survey has confirmed the hypothesis about the importance of teaching aids for thoughtful activation of the students.

Key words: active learning, classroom teaching, geography, nature and society, world around us

Introduction

Most psychologists claim that even with significant results, there still exist serious shortcomings in the teaching process, such as children’s passiveness and the fact that pupils do not receive feedback on their work. Recognizing the necessity for active and conscious participation of pupils in the teaching and learning processes, modern didactics also emphasizes appropriate directing of these activities, their application in achieving educational goals and tasks contained in curricula.

1 Correspondence to: ljubicaivanovics@yahoo.com
The environment in which the school system operates has changed a lot, yet the education is still following the pattern of J.A. Komenski that was introduced in the teaching practice more than three centuries ago. It significantly lags behind the possibilities offered by contemporary development, which obliges school to radically change the approach to its work, as well as the very essence of the teaching process so that it would not become a completely archaic institution (Vlajkovac, 2012).

The above-mentioned facts clearly indicate the need for radical changes in the teaching process, that is for its modernization. The primary task of modern (active) teaching is acquiring basic knowledge that is durable and usable outside of school, as well as the development of skills and competencies important for success in further education, in one’s profession and in life. The main task of school is no longer to give pupils as much knowledge as they can acquire, but to permanently interest them and thoroughly train them in self-learning and continuous self-education (Brookfield & Preskill, 2005; Fletcher, 2005; Lumpkin, Achen, & Dodd, 2015).

Active teaching is a combination of different methods and form of work conceptualized upon children’s natural inclination to explore the world around them using their own activity. The most important characteristics of active teaching are that every pupil works, functions, shows initiative, individual power and that they are ready to accept changes (Scheyvens, Griffin, Jocoy, Liu, Y., & Bradford, 2008; Tot, 2010).

Active teaching is generally defined as any teaching method that deals with pupils in the learning process. In short, active teaching requires pupils to do meaningful learning activities and to think about what they do. Although this definition may include traditional activities such as homework, in practice, active teaching refers to activities that take place in the classroom. Basic elements of active teaching are pupils’ activities and their involvement in the learning process (Bonwell, 2003; Machemer & Crawford, 2007; Hamann, Pollock, & Wilson, 2012).

Activities in teaching can be logical, psychological, pedagogical, sociological and didactic. Lekić (1985) considered pupils’ activities to be the foundation of teaching, since whole organized educational work is based on them. Therefore, an activity could be presented as the integration of knowledge, thoughts, as well as of work and technical actions in the teaching process (Plaić, 2012).

There are many categories of teaching methods, but most of them contain observations, words and practical activities at their base. In the development of
didactic theory and practice, the following teaching methods differentiated themselves:

- The oral presentation method;
- The conversational method;
- The textual method and
- The illustrative-demonstrative method (Ivanović Bibić & Romelić, 2013).

Some of the above-mentioned methods that can make the learning process active are the conversational method and the illustrative-demonstrative method. The illustrative-demonstrative method and observation are the most significant for encouraging pupils’ activation (Ivanović Bibić & Višnić, 2015).

The 21st century undoubtedly brought expectations that new teaching aids and materials as well as an increased usage of computers and adequate specialized programs will enable better and more versatile education growth (Bonwell & Eison, 1991; Guha & Anand, 1992; Plaić, 2012). However, in the Republic of Serbia, this teaching method has not yet sufficiently taken root so that it can achieve noticeable results despite the fact that there is ever-present awareness of the importance of active learning.

The concept of active teaching has been predominant in the world for many years. On the territory of the Republic of Serbia, active teaching appeared in 1994. Although the use of this form of teaching is largely elaborated theoretically and partially tested in the teaching of many sciences, in subjects such as The World around Us, Nature and Society in younger grades of primary education, and Geography in older grades of primary and secondary education, active teaching does not follow contemporary pedagogical and psychological trends (Jančić, 2001).

The main shortcoming of teaching subjects such as The World Around Us, Nature and Society and Geography today is an inefficient way of cognition – teaching is dominated by the acquisition of knowledge as given results, by cherishing memory, neglecting thought processes and self-learning, as well as by the absence of acquired knowledge application (Gombar & Ladičorbić, 2010).

The use of contemporary teaching techniques for subjects such as The World around Us and Nature and Society demands permanent training of teachers, which is the constant broadening and improving of their knowledge of Geography as a science. Professional development of teachers also implies the improvement of their methodological skills and their skills of planning and realizing the teaching process (Diamond, 2008). The main goals of active
learning are an increase in educational effects of teaching and a change in pupils’ position in the teaching process. How to create conditions that would ensure efficient knowledge acquisition in teaching subjects such as The World around Us, Nature and Society and Geography, the conditions that will become means of thinking activity and a tool for deeper and more comprehensive understanding of the world around us? The answer lays in the modern organization of teaching by using active learning and in active work methods, among others, the illustrative-demonstrative methods, that put pupils into the real situation of learning and understanding, searching and discovering. Therefore, the thing that is necessary is education that develops thinking.

With a clear view on the necessity of applying active forms of teaching in contemporary education, this paper examines the efficiency of the influence of teaching aids on pupils’ cognitive activation in learning subjects such as The World Around Us, Nature and Society and Geography. There is an assumption that by using teaching aids in the classroom, grade teachers help their pupils to acquire knowledge more easily, they encourage them to activate their brains, that is to associate ideas independently, to draw conclusions and develop their creativity much more efficiently than by using other active methods.

**Teaching aids used for active teaching**

One of the possible methods of active teaching is the illustrative-demonstrative method, based on the presentation or demonstration of geographical objects, phenomena, processes, relationships, structure or organization of certain activities using drawings, pictures, graphs, maps and so on. In order to ensure that in short time a large number of children are successfully prepared for active participation in further development of science, technology and social relations, teaching aids stand out as a significant element of contemporary education, since they expand knowledge and contribute to its durability (Đukičin, Ivanović Bibić, Lukić, & Dubovina 2014; Kovač, 2012).

Bakovljev (1998) has defined teaching aids as natural objects, models, pictures, drawings and appliances that are selected, adapted and produced for educational purposes. The things that can be considered teaching aids are only those that enhance understanding, acquisition and interpretation of teaching contents, as well as those we use to mark intermediary information in functional didactic relations. Some teaching aids are very easy to use, whereas the usage of some of them requires previous training (Maduna, 2002).

Teaching aids are intermediaries in the transmission of information. In teaching they serve as a source of direct and indirect knowledge acquisition. Namely, due
to spatial distance, complexity or other reasons, immediate reality is not always accessible for direct observation and study, and thus various learning aids are used as a substitution for it. They not only compensate for the authentic objective reality, but represent an important source of knowledge and often evidence in the process of learning. Teaching aids only facilitate teachers’ tasks and pupils’ work, and as such are an intermediary between curricula, pupils and teachers.

The significance of using appropriate teaching aids in active teaching comes down to the following already proven facts: teaching aids enable easier familiarization with concepts and events, teaching aids allow teachers and pupils to free themselves of many routine tasks, and thus to show greater level of creativity in the classroom. Using teaching aids, teachers can more easily adapt teaching to pupils’ prior knowledge, to their interests and abilities. Teaching aids significantly contribute to the more rapid modernization of forms, methods and procedures used in the classroom. Thanks to teaching aids, pupils learn more by realizing, analyzing and problem solving, they encourage their mobility and independence. Modern teaching aids mark the degree of sensory cognition that refers to objects, phenomena and their characteristics, which provides better way of learning, conditions for longer memory, doubtless recognition of the remembered and its usage, that is they activate pupils and get them out of the position of passive knowledge recipients (Gorev & Gurevich-Leibman, 2015).

Methodology

When researching a particular impact on the quality of the teaching process, the selection of appropriate methodology can be very difficult, given the fact that pupils, as knowledge recipients, are also involved in the process.

The main research problems refer to the quality of knowledge, that is how the use of teaching aids affects the quality of knowledge, as well as what are the advantages of the use of active teaching in subjects like The World Around Us, Nature and Society and Geography.

The aim of this research is to determine whether teaching aids really influence pupils’ cognitive activation and if that is the case, to what extent they do so in comparison to other active teaching methods. It is determined on the basis of attitudes of grade teachers and geography teachers. The measuring of the efficiency of teaching aids used for active teaching can lead to very useful pedagogical findings that will help teachers improve their own work in the classroom.
Aside from the clearly defined goal, this paper attempts to tackle additional tasks that imposed themselves during the research. These tasks relate to:

- Researching to what degree grade teachers and geography teachers are familiar with the concept of active teaching,
- Examining teachers’ attitudes towards active teaching,
- Examining teachers’ attitudes towards teaching aids and their utility in the educational process, with special emphasis on cognitive activation.

The formulation of the appropriate hypotheses is considered to be the starting point for all subsequent research activities. Given the previous authors’ experience in the study of the efficiency of educational aids, the starting hypothesis that is accepted suggests that teaching aids have great significance, that is teaching aids greatly influence pupils’ cognitive activation.

It is useful to divide this general hypothesis into several concrete sub-hypotheses in order to clarify the aim of the analysis of this research results:

1. Teachers have positive attitudes towards the application of teaching aids in active teaching;
2. Years of work experience determine greater use of teaching aids in active teaching;
3. Participation in seminars on active teaching contributes to better understanding of the value of teaching aids in active teaching.

A questionnaire based on several different questionnaires is used as the main research instrument, with the Cronbach’s alpha 0.723. Bearing in mind that reliability coefficients higher than 0.7 are considered satisfactory, the used questionnaire has acceptable reliability (Miščević-Kadijević, 2009). The survey is adapted to the very purpose of the research — to the examination of the role of teaching aids in pupils’ cognitive activation.

The questionnaire consists of three parts: the first part includes general questions about gender, age, education, work experience, the environment where the school is located, and whether respondents have passed licensing exams.

The second part of the research examines to what degree respondents are familiar with the concept of active teaching, it examines their active participation such as attending seminars focused on the given issue. This part of the questionnaire also contains questions about teaching aids.

In the third part of the survey, respondents were asked to express their own views on the teaching process in which they use teaching aids in order to increase pupils’ cognitive thinking. That part of the survey asked respondents to...
use Likert scale and say to what extent they agree or disagree with certain statements on a five-level scale as follows: “1 — I strongly disagree”, “2 — I disagree”, “3 — I neither agree nor disagree”, “4 — I agree” and “5 — I strongly agree”.

The independent filing in of the online questionnaire and a direct survey in schools in the Republic of Serbia obtained 154 valid samples, whose answers were loaded into SPSS statistical software, version 20, by which further analysis such as frequency, Mann-Whitney U test, the Kruskal-Wallis test and Pearson correlation coefficient were made.

Table 1. Basic data on the respondents (in %)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Professional Qualifications</th>
<th>Length of service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>26.6</td>
<td>26.6</td>
</tr>
<tr>
<td>Female</td>
<td>73.4</td>
<td>73.4</td>
</tr>
<tr>
<td>Passed exams from pedagogical-psychological-methodological group</td>
<td>26.6</td>
<td>26.6</td>
</tr>
<tr>
<td>Environment in which the school is located</td>
<td>73.4</td>
<td>73.4</td>
</tr>
<tr>
<td>Passed licensing exam</td>
<td>94.2</td>
<td>94.2</td>
</tr>
<tr>
<td>Yes</td>
<td>5.8</td>
<td>5.8</td>
</tr>
<tr>
<td>No</td>
<td>48.1</td>
<td>48.1</td>
</tr>
</tbody>
</table>

The main data sources in the study were grade teachers and geography teachers employed in primary schools in the Republic of Serbia. The survey was conducted during the period from February to May 2015. The study involved a total of 154 teachers. Basic data on the respondents are shown in the Table 1.

Results and discussion

Traditional education is characterized by a notable discrepancy between knowledge acquired during education and later demands in business environment. The cause of that lies in the fact that traditional learning environment is focused mainly on passive and receptive learning that results in inert knowledge. Teaching material is often learned but not understood. The transferring of knowledge is based on text; it is systematic, but not problem-oriented. Pupils are rarely given the opportunity to deal with subjects they learn in an active and practical way (Stanišević, Obradović, & Tošić, 2010).

The primary goal of pupils’ activation is to achieve the rationalization of school work, to accomplish that at a given time educational effect will be better, more qualitative and more durable as well as that they will be realized faster and more efficiently (Borič & Škugor, 2014). Whether the offered procedure — i.e. the usage of teaching aids — will be efficient and to what extent it will be, depends
on the manner of their application, on the entire context, on the atmosphere in
the classroom, on teacher–pupil interactions and on interactions among pupils
themselves.

In order to obtain a clear picture of what causes the increase of pupils’ activation
in teaching subjects such as The World Around Us, Nature and Society and
Geography, a survey was conducted, where teachers expressed their attitudes
towards teaching aids as one of the means of pupils’ activation in the classroom.
Firstly, the survey found that pupils in younger grades acquire knowledge most
efficiently by using the illustrative-demonstrative method, as one of the methods
of active teaching.

A large number of respondents, whose profile is shown in the Table 1, use
teaching aids in their work (89.6%). However, only 47.6% of respondents who
use teaching aids stated that they use them in subjects The World Around Us,
Nature and Society and Geography. When it comes to types of teaching aids,
almost all respondents (94.7%) believe that audio-visual teaching aids have the
biggest influence on pupils’ cognitive activation.

In order to test the accuracy of the measurement scale, a Cronbach’s alpha test
was conducted, which showed the value of 0.723, which is higher than the limit
value of 0.7, so we can conclude that the variables in the test really measure the
requested teachers’ perceptions (Miščević-Kadijević, 2009). For further data
analysis, it is necessary to test the normality of the distribution using the
Kolmogorov-Smirnov test, whereby the level of statistical significance must be
higher than 0.01 so that the tested data distribution would not deviate
significantly from the normal, and so that parametric tests could be used. The
independent tested variables “Participation in seminars on active teaching” and
“Years of experience” showed an irregular data distribution (the Kolmogorov-
Smirnov test shows values lower than 0.01), with the conclusion that it is
necessary to use non-parametric tests, such as the Mann-Whitney U test or the
Kruskal-Wallis test. In order to examine the obtained data and test the sub-
thesis about positive attitudes of teachers towards teaching aids used for
pupils’ cognitive activation, the frequency of respondents’ answers was tested
and data shown in the Table 2 were obtained.
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Table 2. Mean values of respondents’ answers

<table>
<thead>
<tr>
<th>Statement</th>
<th>Arithmetic mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a significant difference between the quality of knowledge pupils acquired by using teaching aids and the quality of knowledge pupils acquired without the usage of teaching aids.</td>
<td>3.87</td>
<td>.948</td>
</tr>
<tr>
<td>The art of proper usage of teaching aids is very important for the learning process.</td>
<td>4.33</td>
<td>.879</td>
</tr>
<tr>
<td>The usage of teaching aids reduces the amount of time pupils spend learning at home.</td>
<td>3.84</td>
<td>1.055</td>
</tr>
<tr>
<td>Teaching aids present a challenge to all pupils regardless of their different ability levels.</td>
<td>4.03</td>
<td>1.063</td>
</tr>
<tr>
<td>Teaching aids increase the motivation in pupils who have less interest in acquiring new knowledge.</td>
<td>3.95</td>
<td>.955</td>
</tr>
<tr>
<td>Teaching aids are able to fully explain the essence of the teaching process even to the least able pupils.</td>
<td>3.82</td>
<td>.946</td>
</tr>
<tr>
<td>Teaching aids encourage pupils’ creativity.</td>
<td>4.38</td>
<td>.667</td>
</tr>
<tr>
<td>Teaching aids stimulate pupils’ critical thinking.</td>
<td>4.19</td>
<td>.739</td>
</tr>
<tr>
<td>Teaching aids help pupils to leave the position of passive knowledge recipients.</td>
<td>4.09</td>
<td>.858</td>
</tr>
<tr>
<td>With proper guidance, pupils can independently acquire new knowledge by drawing conclusions using teaching aids.</td>
<td>3.98</td>
<td>.844</td>
</tr>
</tbody>
</table>

If we look at the Table 2, we can notice that all mean values for the statements are higher than 3, which is taken as the mean value, given that the respondents were asked to express their level of agreement or disagreement with the given statements on a five-point scale. The statement about encouraging pupils’ creativity by using teaching aids received the highest grades (4.38). Given that none of these statements has an average grade lower than 3, it is concluded that teachers have positive attitudes towards the application of teaching aids in interactive teaching, and therefore the first sub-hypothesis is accepted.

Next, the authors wanted to test the second sub-hypothesis taking into account the independent variable “Years of service” in order to determine if there is a correlation between work experience and positive attitudes towards active teaching. Longer experience in teaching enabled teachers to try out different teaching methods and styles and to estimate for which of them they are the most competent, as well as to determine which teaching methods stimulate pupils’ cognitive activities more and develop their capacity to reason and conclude.

The Table 3 shows the results of the Kruskal-Wallis test, which was used for finding statistically significant differences at $p < 0.05$ in the answers of
respondents who were divided into groups by the length of service, in order to
determine whether work experience determines positive attitudes towards the
usage of teaching aids in active teaching.

Table 3. The results of the Kruskal-Wallis test

<table>
<thead>
<tr>
<th>Statement</th>
<th>Less than 1 year</th>
<th>1 to 5 years</th>
<th>6 to 10 years</th>
<th>More than 10 years</th>
<th>Kruskal-Wallis test</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a significant difference between the quality of knowledge pupils acquired by using teaching aids and the quality of knowledge pupils acquired without the usage of teaching aids.</td>
<td>75.16</td>
<td>71.37</td>
<td>66.82</td>
<td>83.37</td>
<td>3.252</td>
<td>.354</td>
</tr>
<tr>
<td>The art of proper usage of teaching aids is very important for the learning process.</td>
<td>78.47</td>
<td>71.25</td>
<td>70.94</td>
<td>81.07</td>
<td>1.787</td>
<td>.618</td>
</tr>
<tr>
<td>The usage of teaching aids reduces the amount of time pupils spend learning at home.</td>
<td>70.66</td>
<td>66.15</td>
<td>84.15</td>
<td>83.45</td>
<td>4.805</td>
<td>.187</td>
</tr>
<tr>
<td>Teaching aids present a challenge to all pupils regardless of their different ability levels.</td>
<td>72.86</td>
<td>67.18</td>
<td>64.62</td>
<td>86.53</td>
<td>7.248</td>
<td>.064</td>
</tr>
<tr>
<td>Teaching aids increase the motivation in pupils who have less interest in acquiring new knowledge.</td>
<td>84.75</td>
<td>76.90</td>
<td>59.44</td>
<td>78.44</td>
<td>4.158</td>
<td>.245</td>
</tr>
<tr>
<td>Teaching aids are able to fully explain the essence of the teaching process even to the least able pupils.</td>
<td>70.58</td>
<td>60.38</td>
<td>81.00</td>
<td>86.51</td>
<td>9.255</td>
<td>.026</td>
</tr>
<tr>
<td>Teaching aids encourage pupils’ creativity.</td>
<td>73.69</td>
<td>89.53</td>
<td>65.79</td>
<td>76.97</td>
<td>4.410</td>
<td>.220</td>
</tr>
<tr>
<td>Teaching aids stimulate pupils’ critical thinking.</td>
<td>61.31</td>
<td>79.13</td>
<td>78.15</td>
<td>83.61</td>
<td>6.684</td>
<td>.083</td>
</tr>
<tr>
<td>Teaching aids help pupils to leave the position of passive knowledge recipients.</td>
<td>64.89</td>
<td>82.07</td>
<td>70.62</td>
<td>82.61</td>
<td>4.895</td>
<td>.180</td>
</tr>
<tr>
<td>With proper guidance, pupils can independently acquire new knowledge by drawing conclusions using teaching aids.</td>
<td>77.23</td>
<td>77.32</td>
<td>61.97</td>
<td>81.21</td>
<td>3.154</td>
<td>.369</td>
</tr>
</tbody>
</table>
As it could be seen in the Table 3, the level of statistical significance is lower than 0.05 only in the case of one statement, that is only in the case of the variable “Teaching aids are able to fully explain the essence of the teaching process even to the least able pupils”, there are statistically significant differences in the responses of the respondent that are grouped by years of service in teaching. In the case of all other variables, the level of statistical significance is high, so it is concluded that for the surveyed teachers, the length of service does not affect different view on the value of teaching aids as a factor of pupils’ cognitive activation. Therefore, the second sub-hypothesis is rejected.

Since it was determined that work experience does not have to be taken as a criterion that determines the commitment to active teaching and to the use of teaching aids in the classroom, but that could also be other factors, other reasons were also taken into account such as, for instance, participation in seminars on active teaching. Participation in such seminars can greatly help teachers receive specific guidelines on its implementation in the teaching process, so it was decided that this independent variable (“Participation in seminars on active teaching”) should also be tested. We used the Mann-Whitney U test to compare the attitudes about the value of teaching aids of those respondents who participated in seminars on active teaching with the attitudes of those who did not participate in them. The Mann-Whitney U test looks for statistically significant differences at the level p<0.05 in ranks among the results (Pallant, 2007).

The Table 4 shows the results of Mann-Whitney U test for all variables that relate to the impact of teaching aids on pupils’ cognitive activation. The test results show four statements with the level of statistical significance (Sig.) lower than 0.05, therefore they show statistically significant differences among the respondents who attended seminars on active teaching and those who did not. These statements are numbered: 2, 5, 9 and 10. The statements refer to the use of teaching aids and to their contribution to the improvement of the quality of education, that is to cognitive activation. The results show small differences between the responses of the two groups, but they are quite reasonable considering that seminars can greatly contribute to the recognition of the importance of active teaching, because at them, teachers acquire knowledge through various education forms that were omitted from the schooling of future teaching staff. The last two statements, whose results in the Mann-Whitney test showed statistically significant differences refer to the results that are achieved by using teaching aids, and is to be expected that those teachers who do not apply active teaching in their classroom cannot adequately evaluate whether
teaching aids influence pupils’ cognitive activation and to what extent they do so, and therefore the last sub-hypotheses is largely accepted.

Table 4. The results of Mann-Whitney U test

<table>
<thead>
<tr>
<th>Statement</th>
<th>Group</th>
<th>N</th>
<th>Middle ranking</th>
<th>Mann Whitney’s test</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a significant difference between the quality of knowledge pupils acquired by using teaching aids and the quality of knowledge pupils acquired without the usage of teaching aids.</td>
<td>Yes</td>
<td>73</td>
<td>76.41</td>
<td>2877.00</td>
<td>.762</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>78.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The art of proper usage of teaching aids is very important for the learning process.</td>
<td>Yes</td>
<td>73</td>
<td>84.27</td>
<td>2462.50</td>
<td>.047</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>71.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The usage of teaching aids reduces the amount of time pupils spend learning at home</td>
<td>Yes</td>
<td>73</td>
<td>71.41</td>
<td>2515.00</td>
<td>.093</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>82.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching aids present a challenge to all pupils regardless of their different ability levels.</td>
<td>Yes</td>
<td>73</td>
<td>76.96</td>
<td>2917.00</td>
<td>.879</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>77.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching aids increase the motivation in pupils who have less interest in acquiring new knowledge.</td>
<td>Yes</td>
<td>73</td>
<td>86.25</td>
<td>2317.50</td>
<td>.014</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>69.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching aids are able to fully explain the essence of the teaching process even to the least able pupils.</td>
<td>Yes</td>
<td>73</td>
<td>81.82</td>
<td>2641.50</td>
<td>.250</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>73.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching aids encourage pupils’ creativity.</td>
<td>Yes</td>
<td>73</td>
<td>74.21</td>
<td>2716.50</td>
<td>.336</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>80.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching aids stimulate pupils’ critical thinking</td>
<td>Yes</td>
<td>73</td>
<td>77.44</td>
<td>2952.00</td>
<td>.986</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>77.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching aids help pupils to leave the position of passive knowledge recipients.</td>
<td>Yes</td>
<td>73</td>
<td>84.79</td>
<td>2424.00</td>
<td>.039</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>70.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With proper guidance, pupils can independently acquire new knowledge by drawing conclusions using teaching aids.</td>
<td>Yes</td>
<td>73</td>
<td>84.39</td>
<td>2453.50</td>
<td>.044</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>81</td>
<td>71.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On the basis of the two previous tables, it could be concluded that lectures and workshops on active teaching greatly determine teachers’ attitudes towards it, as opposed to the years of experience in teaching, although at first glance, it may seem differently. Unfortunately, seminars on active teaching are extremely rare, which reduces the possibility of greater implementation of active teaching in the educational system of the Republic of Serbia (Ivanovic Bibić & Višnić, 2015).

On the other hand, in most European countries, the concept of active teaching is common enough, it does not represent a novelty in education and its usage is not in question at all. However, given that in the Republic of Serbia active teaching is still not at the same level as in other countries in Europe, it was necessary to examine which aspects of active teaching are considered to be the most efficient,
as well as which of them are the most promising for further development. After this research, the need that imposes itself is that these aspects should certainly be teaching aids, given that the illustrative-demonstrative method is presented as the most effective method of active teaching.

**Conclusion**

Every teaching aid as a supplement to the spoken word brings novelty into the way of work, it breaks verbosity, stimulates pupils’ interest and excites their attention, creates in them the need to compare and to search for the causal link between phenomena and objects on one side and previous, as well as new discoveries on the other, it conditions finding similarities and differences between phenomena or objects and thus leads to the development of pupils’ thinking.

The research presented in this paper had the task to assess whether teaching aids stimulate pupils’ cognitive activation and if that is the case, to what extent they do so. On the basis of the presented results, it is determined that teaching aids facilitate teachers’ preparations for classes, they free them from redundant presentations, they improve pupils’ concentration on the learning process and provide teachers with an effective individual assistance in their work in the classroom. The usage of teaching aids can lead to a positive accumulation of information and help teachers free themselves from technical and organizational tasks. A planned usage of teaching aids can lead to a greater methodological diversity in the teaching process and can shorten the time needed for certain preparations.

Analyzing the survey, we tested the starting research hypotheses in order to get a clear insight into teachers’ attitudes about their view on the importance of teaching aids in teaching subjects Nature and Society, The World Around Us and Geography.

One of the most important conclusions drawn from this research is that teachers have positive attitudes towards the use of teaching aids in the classroom, that is to say that teaching aids greatly influence the activation of the teaching process. Grade teachers who participated in the research point out that they consider teaching aids to be very useful in their daily work, and that they use them for teaching subjects Nature and Society, The World Around Us and Geography.

Confirming two of the three sub-hypotheses, it is possible to conclude that the main hypothesis is accepted, and therefore that teaching aids, as a large number of respondents agree, greatly affect the increase of pupils’ cognitive activation,
not allowing them to remain in the position of passive knowledge recipients. Thanks to teaching aids, pupils are able to achieve results that are better than the results that could be achieved by using conventional methods, they are more active, able to draw conclusions independently and also to develop critical thinking and creativity. According to the grade school teachers, the greatest importance of teaching aids lies in the fact that they encourage pupils’ creativity, given that this statement received the highest grades, that is to say the largest number of the respondents agreed with this statement, giving it the highest grade.

It still remains unclear what are the reasons for the low implementation of teaching aids in teaching subjects The World Around Us, Nature and Society and Geography and also why the percentage of the usage of active teaching in the contemporary educational system of the Republic of Serbia is not higher, since there is an obvious fact that children’s inactivity is still generally the biggest problem for most schools in the country. It remains that the further research of educators, methodologists and didactic teachers determine the real causes for such a state of the teaching process, because it is undeniably confirmed that active teaching has great significance, that it enables pupils to achieve better results and also arouses their interest for the entire educational system.

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