Snežana M. Grbović¹

Faculty of Philosophy, University of Nikšić, Montenegro

Marija Ž. Draganić

The First Vocational High School, Nikšić, Montenegro

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STUDENT-CENTERED FACTORS OF GEOGRAPHY TEACHING - FROM THE STUDENTS' PERSPECTIVE

Abstract

The aim of this paper is to present a critical view of geography teaching from the aspect of student-centered teaching, as well as the approaches and arguments for introducing significant changes in the internal organization of geography teaching. The teaching of geography has been evaluated according to three groups of factors: the share of methods and forms of teaching and learning, the use of knowledge sources and the media as a knowledge source and work resource for students and teachers, and the process and purpose of evaluating student achievement. The research has been conducted on a sample of 541 second-grade students of Montenegrin high schools, and the instrument used in the research has been constructed according to the five-point Likert scale of attitudes. The research has shown that the teaching of geography in high schools, observed cumulatively according to the above group of factors, does not yet present student-centered teaching. It has also been shown that the examined factors of geography teaching reflect the factors of student-centered teaching, from the perspective of students. The theoretical aspect of this work and the results obtained by studying the attitudes of students should point out to teachers the necessity and significance of changes in the essential segments of geography teaching, and be useful to the education reform organizers who need information about changes in the process itself, thus directly assisting the implementation of the reform.

Keywords: *geography teaching, learning, work methods, knowledge sources, achievement evaluation.*

Introduction

General social changes, which occur both at the global and the local level, also entail changes in the education system. The response to these challenges should be changes as a continuous process, as opposed to frequent school reforms. The quality of education is increasingly being linked to the more active role of students in the education process. We can recognize numerous attempts to define such a student role in the paradigm of student-centered education based on active forms of learning.

It is evident that reform solutions for the education system in Montenegro aim at emulating the advanced education systems, at all levels of education. The education approach being promoted is the student-centered one, that is, an approach to learning compatible with the students' needs. Nevertheless, there is a lack of research dealing with

¹ E-mail: gsnezana@t-com.me

the students' perception of the school curriculum, and consequently a lack of research dealing with the students' perception of geography as a school subject.

We are developing an opinion according to which the essential change that should take place in our educational system is, indeed, focusing attention on the students themselves as responsible and proactive participants in the teaching process. Guided by such thinking, we have tried to highlight to what extent geography teaching in high schools, in terms of organization and practice, is focused on students, observed according to the selected teaching factors. In setting up this research, we have first of all taken into consideration the point that the methodics of geography teaching is not static but flexible and continues to develop in the light of new knowledge provided by contemporary teaching theory, scientific research, geographical science, and teaching practice. In designing the research, we have drawn on the relevant scientific approaches, as well as on our considerable pedagogical experience and insight into the issues investigated.

Student-centered Teaching – Characteristics

Two didactic strategies are often mentioned and discussed in contemporary didactics: teacher-centered teaching and student-centered teaching. What exactly is student-centered teaching, and specifically, in this context, the teaching of geography?

Teaching in general and student-centered geography teaching has the characteristics of a successful, quality, contemporary teaching. Nowadays, "successful teaching is seen as teaching with an increasing degree of autonomy in the process of acquiring knowledge, with the teaching function increasingly being transmitted to the impersonal media that become the main carriers of teaching content, while teachers are organizers of the teaching process and instructors in the process of students' independent acquisition of knowledge" (Španović, 2005: 181). In high-quality teaching, the student is the focus of interest and, as Stevanović claims, "students are not only the recipient of teaching, but also its goal. They create and consume it according to their (critical) needs and possibilities. The aim is to achieve the self-realization of students" (Stevanović, 2002: 30).

Contemporary teaching is also seen as a concept abandoning verbalism, in order to focus the entire teaching process on the student, who is the subject of the educational process, by applying various teaching methods stimulating students to work actively, think critically and creatively, solve problems and use knowledge in new situations (Timberlake, 2009; Woodlief, 2007). Thus, the emphasis is on the activities of students to such an extent that scientific approaches indicate that in teaching which could be denoted by the student-centered teaching syntagm, students should be more active than the teacher (Matijević & Radovanović, 2011).

Therefore, student-centered teaching insists on the active participation of students in the teaching process, that is, on active learning. And active learning, according to Kyriacou, "consists of activities in which students are provided with a high degree of autonomy and oversight of the organization, course and direction of activities" (Kyriacou, 1995: 56). Ambrose, Bridges, DiPietro, Lovett & Norman (2010) see active learning as a process leading up to changes arising as a result of students' experience and increasing the potential for improving activities and future learning. Prince (2004) himself sees student activity

and engagement in the learning process as key elements of active learning. Palincsar & Klenk (1992) hold the view that organized active learning results from the students' purposeful, self-regulated and active engagement, encompassing the development of students' learning competences during the teaching process. Obviously, emphasis is increasingly being placed on the development of general learning strategies, development of students' ability to direct the learning process themselves, to self-evaluate and be aware of their own learning activities. Focusing on various aspects and strategies of learning, as observed by Azevedo & Hadwin (2005) is significant mainly in order to develop meta-cognitive awareness and self-regulated learning. Self-regulation of learning is seen as a process where students actively participate in learning, they can monitor, control and regulate certain aspects of their knowledge, motivation and behavior (Pintrich, 2004). Participants themselves set goals or standards of comparison in order to follow their own progress, and all these activities are mediated by students' personal characteristics and the characteristics of the learning context. Apart from what has already been stated, the "subject role of students is achieved through the application of different media, using various sources of knowledge and applying innovative forms of work" (Živković & Jovanović, 2006: 250).

Student-centered teaching also presupposes a shift from a traditional approach to evaluating student achievements. In this context, Sertić & Haler (2012) point to the value of formative evaluation and self-evaluation while positioning students at the center of the educational process. Furthermore, formative evaluation and self-evaluation of each student is also advocated by Kyriacou (2001). He thinks that evaluation should be carried out continually, and that the planning of student achievement does not tell us what teachers are supposed to do while teaching, but is focused on students and their activities. Similar views are developed by Sadler (1989). He thinks that students can achieve their learning goal if they understand it and if they can assess what they need to do in order to achieve it, meaning that self-evaluation is a prerequisite of learning.

The aforementioned approaches share the view that students ought to be active participants in their own learning, where the learning itself is seen as an active, constructive, self-regulated process. Such processes require not only the existing, but a new role for teachers, which seems to be best manifested in the educational slogan of Marie Montessori – *help me to do it myself*.

Student-centered Teaching in Geography Teaching

Geography has a significant place in the education of students. Geographic knowledge is the basis for understanding relationships in a complex geographical area. Geography, as a science-teaching discipline, has a unique subject of study, the geographical environment. More precisely, by studying the elements of the geographical environment, their mutual relationships and conditionality, geography has a wide range of diverse topics at its disposal. Global challenges such as climate change, natural disasters, food safety, nutrition, urbanization, overpopulation, energy security, and others have in their essence a geographical dimension and are in themselves predetermined topics in geography teaching.

“In Montenegro, which in 1991 has decided to develop on a healthy ecological basis, geographic knowledge has special weight and pragmatic value” (Bakić, 1993: 53). During their first and second year, high school students in Montenegro, in line with the goals and outcomes of the subject program for geography², as well as through the realization of inter-subject areas³, have the opportunity to significantly expand their knowledge and critically reflect on many geographical topics. Precisely by realizing the aims of inter-subject topics, those of the subject program can be actualized and thus made more familiar and attractive for students. The aim of teaching geography is to enable students to solve problems and tasks in new and unfamiliar situations, but also to express and explain their opinions and discuss them with others, as well as to get to know and understand geographical objects, phenomena, processes and laws in space, and their cause-and-effect connections and relationships (Dragović, 2012). In order to respond to such objectives, a major challenge for geography teachers is the selection and integration of teaching methods and forms of work that support a high level of students’ control over the learning process.

Didactic literature specifically advocates views that it is quite superfluous to explain the need for various teaching methods, since different teaching goals, numerous learning prerequisites and the scope of students’ interests, can only be addressed by a variety of methods (Meyer, 2005). Milić & Gazivoda (2015) demonstrate that by applying various teaching methods and forms of teaching work, preconditions are created for various student activities and their mutual cooperation, either by working in pairs, small or large groups, or through individual work.

Among various teaching methods, our attention in this research has been focused on those presupposing an active role for students in the learning process, in accordance with the aforementioned theoretical views. In this paper we do not directly study the application of the forms of teaching work, but we do this indirectly by researching the application of methods that in themselves include adequate forms of teaching.

The goals in geography teaching can certainly not be achieved only by lecturing, regardless of teachers’ creativity in this part. We agree that traditional methods of teaching in geography are sometimes advantageous and very efficient, especially for learning geographical basics and principles, as well as higher level concepts. However, in order for students to apply the acquired knowledge, it is necessary to develop pedagogical-didactic scenarios that include collaborative, experiential and situational learning. Such scenarios

2 Geography is a compulsory subject in the first and second grade of high schools. The first grade syllabus includes topics from general geography, and in the second grade the content is related to the topics: Montenegro, the countries of the Western Balkans and the basics of geography of the world.

3 In March 2015, the National Council for Education has established Inter-subject areas in the subject programs for general gymnasiums. With full respect for international strategic documents, and in accordance with Montenegrin priorities, traditions and commitments, the eight inter-subject areas have been defined, as follows: Climate change, Green economy, Environmental protection, Valuation and spatial planning – sustainable cities and settlements, Biodiversity, Health education, Education on Human Rights and Entrepreneurial Learning; Inter-subject areas/topics are mandatory in all subjects and teachers are obliged to implement them. Education through inter-subject areas requires a reorientation from providing knowledge to problem-solving and identifying possible solutions. That is why education retains its traditional focus on individual subjects, and at the same time opens the door to a multidisciplinary and interdisciplinary study of real-life situations.

will respond to the methodological specificities of both physical geographic and societal geographic topics, as well as regional geographic, general geographic and cartographic topics, and methodical specificities of topics on environmental protection, particularly insisted on by contemporary geography teaching.

Since the essence of geography teaching is research and problem solving, fieldwork and project teaching, based on active learning foundations, are irreplaceable methods and forms of work for students and teachers. Field teaching basically represents the integration of students' theoretical knowledge, physically experienced examples of phenomena and processes in the field, as well as concrete fieldwork skills. (Matas, 1996). In the context of fieldwork importance in geography teaching, Brazda (1985) considers that whenever possible, and wherever possible, basic geographical knowledge should be acquired through direct teaching in the field. Fieldwork is "the work that places students in the foreground, they progressively become more independent, their thinking, research, conclusions are encouraged. In the basis of fieldwork lies the idea or project that is being set up for research" (Živković & Jovanović, 2016: 215).

As for projects, represent a form of particularly intensive and comprehensive learning, which often includes field observations. In geography teaching there is a wide range of possibilities for applying project-based learning, involving students in individual or group-organized projects. Matijević & Radovanović (2011) believe that project teaching should be organized in order to achieve those learning objectives that cannot be achieved by other teaching strategies and methods, such as collaborative and entrepreneurial competencies, independence, innovation, teamwork, and so on. They point out that this is achieved by involving students in various activities such as practical, sensory, expressive, intellectual, creative, and others. Working directly with teachers, through the realization of various forms of professional development, we insist precisely on project-based learning. The reasoning behind this is the understanding that problem-based learning is a potent learning method, especially when it comes to projects requiring task solutions (Ivić et al., 2003). The authors point out that while working on a problem, students practice important intellectual skills and competences: they ask questions, discuss various ideas, negotiate possible answers, predict plausible outcomes, outline research plans, select, collect, analyze collected data and interpret them, make decisions, draw conclusions, design a way of presenting information, write reports about project work and results, explain to others and use arguments to support the applied procedure and findings. The goal of problem-based learning is for students to make hypotheses which can help them reach a solution to the problem, and then learn to reassess facts themselves, discover new ones and create contexts necessary for finding the best problem solutions (Tan, 2009). In this way, Tan further explains, students create the possibility of organizing their own learning, that is, efficient time and information management while learning independently, these also being features of learning competency.

In geography teaching, a problem has the form of a theoretical question and/or practical task requiring a solution. A problem is also understood as a situation in which, based on the fact that certain elements are known, others should be detected or identified and determined (Đere, 1982). The teaching of geography abounds in problems arising from the logic and structure of geographic contents, or geographic topics. We also point out

the importance of engaging students in initiating certain activities within a project as well as in choosing an appealing content for their project topics. According to Milić & Gazivoda (2015), this can be achieved by offering students a selection consisting of an event, a person, a text in which they want to invest additional work, or a series of activities to determine the existing knowledge within a particular topic. They also note that most of the tasks required from students are not necessarily to be done in the same way, but should encourage divergent ways of thinking that will develop a sense of self-confidence in students. All this is aimed at boosting motivation for participation in project work, which should ultimately lead to the expected result.

Encouraging critical thinking among students is one of the goals we aim for in our educational system. However, we think that there is a significant gap between educational practice and educational ideals, such as critical thinking. Critical thinking methods have wide application in geography teaching, but it can also be said that all activities within this research significantly encourage critical thinking. In this research, we wanted to find out at what level *the debate*, as one of the methods of critical thinking, is applied in the teaching of geography, in view of the importance of this method in encouraging critical thinking, and to obtain feedback from schools about positive outcomes in the application of this method. In order to effectively utilize critical thinking, Steel, Meredith and Temple (2001) think that students must develop self-confidence and awareness of the value of their thoughts and ideas, and actively engage in the learning process, but also be able to listen to diverse opinions and be prepared to express their judgment. The debate virtually unites all the above components for the development of critical thinking among students.

Guided by thoughts on the significance of experiential learning, in this research we have also focused our attention on methods that encourage and facilitate experiential learning: case study, simulation, role playing. According to Kolb (1984), experience is precisely what matters and what future generations need to adopt. He thinks that theorizing without experience makes no sense, and that learning itself is actually a process in which knowledge is created through the transformation of experience.

For the abovementioned methods we have also decided to use our very positive experience in working with geography teachers within the frameworks of attended seminars, where these methods have been practically simulated.

The case study, as a teaching concept, aims to teach students to solve problems and think. In order to make a topic or a study more relevant, it is desirable to connect it to a specific life situation. Such concept studies also imply the need to involve students in further research, as well as in a constructive discussion of opposing attitudes. They also encourage students to delve deeper both into the character and the problem at hand, and they encourage discussion. It is evident that in this process essential activities are those of students, aiming not only at acquiring knowledge, but even more importantly, at acquiring the ability of problem solving. In role playing, students learn by working, imitating, through observation and feedback, through analysis and conceptualization (Mattes, 2007). Such activities may be an incentive for students to participate in teaching. In a situation where students assume a role assigned to them, they take over the thinking, feeling, and behavior of someone else thus learning through their own experience.

Of high didactic value in geography teaching are online simulations that represent a form of research-focused learning and teaching. Geographical phenomena and processes,

due to their nature, cannot be directly observed by students in the field, so this enables them to visualize these. Visualization is very important in the teaching of geography primarily because of the possibility for a student to obtain a logical experience of individual relationships in the observed phenomenon (Živković et al. 2015).

Apart from the above, successful realization of geography teaching, with students as active participants, presupposes the use and application of various sources of knowledge and media as a knowledge source and work resource for students and teachers. Learning from different sources is very important for active knowledge acquisition. By using different knowledge sources, students acquire new knowledge, learn and get used to recognizing that which is significant and connecting it to other significant items.

An unavoidable element of the teaching process in geography in high school is certainly the textbook. The general perception of the importance of textbooks as a source of knowledge in the teaching of geography is shaped by the fact that content that cover social geography topics become obsolete in a relatively short period of time, but also within the framework of the study of physical geography topics, new knowledge is obtained on scientific approaches to certain phenomena or processes, requiring new sources. In addition, it is a well known fact that a textbook as a work of authorship inevitably offers a limited view of the topic it deals with, and being written in the language and style of the author, may not be to all students' liking.

In Montenegro, we do not have clear feedback, based on relevant analyses, on how much geography textbooks are in line with what contemporary teaching should be, namely, a student-centered process focused on capacitating students for lifelong learning. It is emphasized that "nowadays we need textbooks enabling more efficient learning, especially regarding students' independent, self-directed and research-oriented learning" (Mikanović, 2009: 137). Our view is that the existing textbook is largely not a medium that can motivate students to learn independently, solve problems, think divergently, and relate scientific theories to practical situations, and that stimulates research and metacognition.

For the teaching of geography, it is of particular importance to encourage students to use scientific-popular literature, in an effort to bring the achievements of geographical science, which are evident in almost all of its spheres, to students. Such contents are an incentive both for the enrichment of student knowledge and for a new understanding of already adopted geographical concepts, as well as for the introduction of students to the sphere of research and new knowledge that can be successfully incorporated in the teaching process. In this aspect, contemporary media, or the use of ICT in teaching, provide significant support to students and teachers. Namely, e-learning, or the teaching of geography with the help of information and communication technologies, brings about significant changes in the processes of learning and teaching, but subject to their critical application. "Students increasingly learn independently, research, discover, thus reducing the lecturing role of teachers" (Vilotijević, 2007: 406). Thus, new possibilities arise for active learning, where students as researchers take responsibility for their own learning. In this way, the feeling of accomplishment is increased, enhancing self-respect, competence and development of positive attitudes of students towards learning and school.

Contemporary geography teaching puts a special emphasis on the use of the Geographic Information System (GIS). The geographic information system has emerged in

response to the need to be more precise in examining phenomena and processes in the geosystem in which the complexity of events and the need for their control and management are growing. In the teaching of geography, GIS supports the existing geographical skills that students are expected to adopt at a certain educational level. They further point out that “the introduction of GIS technology into the geographic curriculum represents a major step forward in creating a new dimension of basic geographic knowledge and skills” (Živković i sar., 2015: 194). Today’s students, the so-called *net generations* possess significant IT knowledge, which ought to be utilized from the aspect of geography teaching. The key role in the application of GIS in teaching belongs of course to the teachers, who need to be well acquainted with the principles of GIS and enable an environment in which students can express their various abilities, and in a suitable way develop an analytical approach, a sense of spatial relations, familiarize themselves with the environment, learn how to create maps, etc.

It is the original reality – the field, which is the source and valuable potential of geographic education. It is at the same time an approach and a source of learning. It enriches students’ knowledge via a diversity of ideas and content.

There are not many countries such as Montenegro, which in a relatively small area possesses a rich and varied natural and cultural heritage, as a consequence of its geographical position, configuration, turbulent history, influence of different civilizations and cultures, migration and other mergers and permeations, and as such is an inexhaustible resource in geographic education, a space that motivates students to research activities.

In addition to the above, student-centered teaching implies adequate positioning of student achievement evaluation. Grading is a very important educational issue and one of the key aspects of the teaching and learning process. There is increasing insistence on the paradigm viewing grading as a part of the learning process. It is pointed out that the purpose of grading is to enhance understanding of the learning process of students, and learning itself is understood as a construction or co-construction of knowledge (Hargreaves, 2005). In the context of evaluation, particular emphasis is put on the value of formative evaluation (Goh & Matthews, 2012; Moss & Brookhart, 2009) in positioning students at the heart of the educational process, and in this context, the foremost place is given to the role of self-evaluation, i.e. the evaluation of one’s own achievements, as an evaluation process encouraging the development of students’ self-confidence and increasing their motivation for learning. Thus, the emphasis is on formative evaluation with constructive feedback. Kyriacou (1995) advocates giving constructive feedback to students as a support and an incentive for progress. According to him, such feedback informs the students that their work is being followed and that the teacher cares about their progress. Therefore, good feedback, according to him, presents an incentive to the student’s motivation and dedication. Brookhart (2008) also believes that feedback is effective if students learn, are motivated to learn, believe that they can learn, and want to learn, and in such a situation, the class becomes a place where feedback is valuable and productive. This kind of thinking leads to the conclusion that feedback, in order to fulfill its function in a student’s progress, must be well balanced and adjusted to each individual student.

It is our opinion that in practice, the evaluation of achievements in geography is often reduced to grading, that is, the evaluation of the lessons learned, as opposed to

encouraging efficient learning. Grading itself, as Weimer (2002) sees it, promotes superficial learning, develops extrinsic motivation and discourages students in developing self-evaluation skills and evaluating their peers. He suggests as useful for teachers to provide more feedback to students, to write constructive comments on how to learn better or how to improve their performance. He also believes that the activities of self-evaluation and peer evaluation help develop independence and autonomy.

Research Methodology

The aim of this research has been to estimate to what extent geography teaching in Montenegrin high school education is student-centered, using a cumulative assessment of the share of investigated factors.

In line with this goal, our task was to examine the key areas of teaching, according to three groups of factors: methods and forms of teaching and learning, knowledge sources and the media as a knowledge source and/or work resource for students and teachers, and the process and purpose of evaluating student achievements.

In accordance with the goal set and its associated operational tasks, we have formed a key hypothesis as a starting point for our survey: We assume that the teaching of geography in Montenegrin high schools is not student-centered to any significant extent, as observed through the share of investigated teaching factors. From the given general, key hypothesis, we have derived the following specified and more concrete hypotheses:

- We assume that the teaching of geography, as observed through the share of teaching and learning methods and forms is not student-centered to any significant extent.
- We assume that the teaching of geography, according to the structure of knowledge sources and the use of media as a knowledge source and/or work resources for students and teachers, is not student-centered to any significant extent.
- We assume that the process and purpose of evaluating student achievements does not correspond with student-centered teaching to any significant extent.

A deliberate sample of respondents was selected, consisting of second-year high-school students who are completing their compulsory geographical high-school education. The research has included four high schools in Montenegro, from all three regions, north, central and south Montenegro.

At the beginning of the survey, the sample consisted of 600 respondents; out of the 600 questionnaires, 59 were inadequately filled in. Thus, a sample of 541 students was formed.

For the purpose of this research, a survey questionnaire was designed to assess students' attitudes. Students were asked to evaluate 15 claims on a 5-degree Likert type scale. Students were expected to indicate one of the five responses on the Likert scale in terms of their agreement or disagreement with the claims, and the offered answers read: I strongly agree, I somewhat agree, I do not know/I do not have a stance, I somewhat disagree, I strongly disagree. Students had the option to complete the offered scale,

and to add statements reflecting their needs in relation to geography teaching within the three groups of factors observed. The research was anonymous and was conducted during May-June 2017.

The obtained data were to be systematized, quantitatively processed, and then interpreted qualitatively. In this research, we remain deprived of comparative analyses, since in Montenegro there have been practically no studies in the subject of geography teaching, so the results of the conducted research could not be compared with any previous results. We have tried, based on the collected data as well as on theoretical and empirical research directly and/or indirectly related to the topic of this research, to derive realistic assessments, to indicate the significance of the factors investigated, from the aspect of teaching and learning organization, and to outline directions for further research.

Results and Discussion

The agreement of respondents with statements relating to the application of methods and forms of teaching and learning is shown graphically in Chart 1. With the statement "high-school geography teaching is teaching where special attention is paid to organized, field learning", fewer than 20% of students agree strongly or somewhat, while 69% strongly or somewhat do not agree with this statement. About 11% of students do not know/do not have a stance. The research has further shown that about 30% of students strongly or somewhat agree with the statement "high-school geography teaching is teaching where students are also taught through participation in various individual and group projects", but also that 47.7% of students strongly or somewhat disagree with this statement. As many as 22% of students do not know/do not have a stance. The results have also shown that a large number of students, over 73% of them (strongly or somewhat) disagree with the statement "high-school geography teaching is teaching where students are also taught using case study, role playing, online simulation". Approximately 17.5% of students agree (strongly or somewhat) with this statement, while around 12% do not know/do not have a stance. About 29% of students (strongly or somewhat) agree with the statement "high-school geography teaching is teaching where debates on current geographic topics are organized", while as many as 60% of students (strongly or somewhat) disagree with this statement. About 11% of students do not know/do not have a stance.

The research has also shown that around 50% of students (strongly or somewhat) agree with the statement "high-school geography teaching is teaching where teachers' lectures are not the dominant method of instruction", 16% of students do not know/do not have a stance, while 33% of students disagree (strongly or somewhat) with this statement.

The results of our research have shown that the teaching method or teaching through lectures is not the dominant method of learning, but also that there is a considerable lack of methods, and thus of the forms of teaching and learning that place the student in the position of an active, interested subject in the learning process.

Apart from the already mentioned positive aspects, the significance of active involvement of students in the learning process is confirmed by a number of relevant studies. Active learning results in a greater conceptual understanding on the part of students (Knight & Wood, 2005), as opposed to when the position of students during the teaching process is passive.

Chart 1. Proportionate distribution of students' responses regarding the application of methods and forms of teaching and learning

It has also been found that active involvement of students in the process of learning enables students to engage in motivating, meaningful and self-regulated learning, resulting in the development of higher-level thinking skills, such as comparing, analyzing, synthesizing, evaluating and creating (Bonwell & Eison, 1991). Furthermore, studies show that knowledge is more active and useful when it is acquired by problem solving, rather than as factual knowledge (Lockhart et al., 1988). Students prefer project assignments to common school tasks (Abbitt & Ophus, 2008), because these allow them to work in groups with others and to learn how to cooperate better with each other (Milson, 2002). For their part, tasks requiring cooperative learning are a good opportunity for the development of interpersonal competencies, and numerous studies have shown that cooperative learning leads to better student results and achievements (Johnson & Johnson, 2009, Antić, 2010). Kalem & Fer (2003), exploring the effects of active learning strategies on student understanding of the learning process, teaching, communication, and learning environments, establish their positive effect on all of these components. Hanson & Sinclair (2008) state that active learning strategies help students develop a more profound understanding of theoretical concepts that are thus more closely related to practical experience and contribute to the development of skills in problem solving and the development of skills and disposition for participation in collaborative problem research.

There is a relatively large percentage of students who do not have a stance regarding certain statements, and this may be due to the fact that such teaching methods are not represented in geography teaching or that this percentage of students is not included in such learning activities.

Respondents' agreement with claims related to knowledge sources and the use of the media as a knowledge source and work resource for teachers and students is shown in Chart 2. The statement "high-school geography teaching is teaching where textbooks are not the only source of information" has an agreement rate of approximately 59% (strongly or somewhat agree), a disagreement rate of 32% (strongly or somewhat disagree), while about 9% students do not know/do not have a stance. Approximately 36% of students agree (strongly or somewhat) that "high-school geography teaching is teaching where scientific-popular literature is used", 46% disagree with this statement (strongly or somewhat), and 18% of students declare that they do not know/do not have a stance. With the statement "high-school geography teaching is teaching where modern media (e-learning) are used", approximately 29% of students agree (strongly or somewhat). About 55% of students disagree (strongly or somewhat) with this statement, and just over 16% of students do not know/do not have a stance. The results have also shown that about 12% of students (strongly or somewhat) agree with the statement that "high-school geography teaching is teaching where Geographic Information System has significant application", 65% of students (strongly or somewhat) disagree, and 22% of students declare that they do not know/do not have a stance. About 26% of students (strongly or somewhat) agree that "high-school geography teaching is teaching where original reality – the field, is an important learning resource, a source of information", 56% of students disagree with the statement (strongly or somewhat), 18% of students do not know/do not have a stance.

Chart 2. Proportionate distribution of students' responses regarding the use of knowledge sources and the media as knowledge source and work resource

One way to make teaching and learning activities more interesting to the participants, and thus more efficient, relates to applying learning from various sources. In contemporarily organized teaching, there is a wide range of possibilities for learning from various, or based on various knowledge sources. Antonijević & Vujisić Živković (2015) believe that when students are enabled to learn about particular programs, within the teaching concepts, from various sources, this basically means that students are given an opportunity to learn from a source most suitable for them, in a way most convenient and preferred by them for their learning activities. The results have shown that the teaching of geography, in terms of the structure of sources of knowledge and the use of media as a knowledge source and/or work resource for students and teachers, does not correspond with student-centered teaching to any significant extent. Textbooks, according to the estimation of the majority of students, are not the only source of information in geography teaching, which is a positive fact from the point of view of student-centered teaching. However, it has also become apparent that in the teaching of geography there is a notable lack in the use of modern media as a knowledge source and work resource for faster, more diverse and more efficient way of learning. This is also an obstacle for a more active student position, greater motivation for learning, and the creative and effective use of such knowledge.

It is important to point out that the results in this part of the research have shown that primary sources of knowledge, such as the natural and social environment (local educational resources, people, places and things), which also represent the most appropriate sources of knowledge in geography lessons, are lacking to a significant extent. "Unlike other media, the 'real' objects have an 'aura' of authenticity, originality and reality, which can be much more fascinating for students than other resources" (Koren, 2013: 131).

Introducing new technologies in the teaching process enables students to actively search for information. Students learn by interacting with information and by utilizing it. Traditional learning and teaching forms are replaced by research and problem-based methods, thus putting the student in the position of an independent researcher and information user actively involved in the process of searching for information. This also means that the ability to consciously, thoughtfully and meaningfully interact with the information becomes a framework within which learning takes place (Špiranec & Banek Zorica, 2010).

Respondents' degree of agreement with claims related to the process and purpose of evaluating student achievements is shown in Chart 3. That „high-school geography teaching is teaching where the purpose of evaluation/grading is to stimulate success, development and progress" is a statement that about 43% of students agree (strongly or somewhat) with, about 18% of students do not know or do not have a stance, while just over 38% of students disagree (strongly or somewhat). Around 49% of students agree (strongly or somewhat) that "high-school geography teaching is teaching where students are evaluated according to their achievements", while approximately 36% of students disagree (strongly or somewhat) with this statement and about 15% of them do not know/do not have a stance. With the statement "high-school geography teaching is teaching where students receive timely constructive feedback – how to learn better and/or how to improve the efficiency of learning", approximately 36% of students agree (strongly or somewhat), while about 43% of students disagree with this statement (strongly or somewhat) and about 20% of students do not know/do not have a stance. Approximately 35%

of students (strongly or somewhat) agree with the statement “high-school geography teaching is teaching where students also evaluate their own work and the results of their learning”, about 45% disagree with this statement (strongly or somewhat) and slightly over 18% do not know/do not have a stance. With the statement “high-school geography teaching is teaching where students participate in evaluating their classmates’ work”, approximately 31% of students agree (strongly or somewhat), more than 53% of students disagree with this statement (strongly or somewhat), while about 16% of students do not know/do not have a stance.

Chart 3. Proportionate distribution of students' responses regarding the process and purpose of evaluating student achievements

As we can see from students' evaluation, the process and purpose of evaluating student achievements, observed within the framework of the investigated factors, do not correspond with student-centered teaching to any significant extent. This is particularly noticeable regarding self-evaluation and peer evaluation, and also constructive feedback. When the focus is on students, teachers use strategies of formative evaluation before and during teaching, bearing in mind the progress of every single student.

Studies carried out by Paris and Winograd (1999) indicate that self-evaluation results in more profound understanding of learning. It has been shown that periodical self-evaluation of the process and outcome of learning improves monitoring of one's own progress, stimulates corrective strategies and promotes the feeling of self-efficiency. In this context, it is emphasized that by analyzing individual styles and strategies of learning and by comparing them with other strategies, individual awareness of various learning techniques is

enhanced. In line with this, it is pointed out that connecting self-evaluation with external standards can assist students in regulating their own activity while striving for the desired goals (Paris & Paris, 2001).

The importance of constructive feedback is particularly advocated and it is emphasized that teachers should provide continuous feedback with special attention paid to the level of goal achievement, review of knowledge and skills improvement, and efficiency of strategies utilized. Corrective feedback information is also important in helping students realize their mistakes and how to correct problems (Ley & Young, 2001). Thus, self-evaluation for learning and as learning has formative characteristics and provides information to adjust teaching to student activities. It describes the needs for future learning, suggests corrections in learning, and is continuous.

The results of the research have shown that from the students' point of view, evaluation of what has been learned, summative in itself, truly presents an incentive for success. However, one should bear in mind the lacks of evaluating what has been learned, reflected primarily in delayed and very brief feedback.

The significant percentage of students who have no stance regarding the above statements is debatable, and can be linked to a low level of critical thinking, irresponsibility and lack of interest on the part of students, because this is something that is not directly evaluated.

The choice of investigated factors in student-centered geography teaching has been justified by students' responses. Namely, the questionnaire with the tested claims has been left open, thus giving the students the opportunity to supplement the claims, that is, the missing factors, which reflect their needs in geographic education. The survey questionnaire has not been supplemented by any new claims or factors, which allows us to conclude that the researched factors of teaching reflect the factors of student-centered teaching from the perspective of students.

Conclusions

Based on the positive characteristics and effects of student-centered teaching discussed in this work, one can conclude how essential the need for their application in the teaching of geography is. It has undoubtedly been confirmed that student-centered teaching expands the concept of education beyond the acquisition of skills and information, and emphasizes the importance of learning in various contexts necessary for later application.

The results of the conducted research indicate that the teaching of geography observed within the frames of the investigated factors, is not significantly student-centered. Methods and forms of teaching and learning which focus primarily on what the students do in the teaching process or how they learn, and which have been the subject of this research, are not present in the teaching of geography to any significant extent. Various sources of knowledge and the media as a knowledge source and/or work resource for students and teachers, which have been the subject of the research, are not recognizable in the teaching of geography to any significant extent. In particular, there is no active

learning on environmental sources, nor with the use of modern information communication technology. Also, the process of evaluating pupil achievements in the area of student responsibility (in the process of self-evaluation), a feature which could ultimately result in better quality of student-centered teaching, is lacking in direction. The research also points to a poor level of attention focused on the needs of students for advancement (constructive feedback).

We consider it necessary to emphasize that the conducted research has noticeable limitations. Namely, the obtained data have been processed cumulatively and thus the results cannot be generally applied to all schools and all students, or all classes. On the other hand, it should be taken into account that this is a relatively large sample of respondents, and that the survey has included the high schools in Montenegro with the largest number of students. Therefore, regardless of the abovementioned methodological disadvantage of the research, the results obtained provide important insights, open up the possibilities of argumentative debate on the quality of geography teaching in high school education and the space for planning the improvement of work with students, representing a good starting point for further research in the field of teaching/learning geography.

Namely, this analysis of students' experience regarding the teaching and learning of geography can be very efficiently used in the process of self-evaluation and evaluation of geography teaching. The investigated factors represent a good diagnostic tool for assessing and improving the current situation, especially when considering the fact that they are in accordance with the needs of students in their geographic education.

Insufficient insistence on the investigated factors in the teaching of geography opens up perspectives for further research in this field, above all: a more profound and precise examination of the investigated factors from the aspect of practical application; including the perspectives of teachers themselves in future research; levels of teachers' capacities for student-centered teaching; obstacles that impede or might impede teachers in organizing student-centered teaching; possibilities for overcoming obstacles (input for changes in professional specialization and the professional development of teachers).

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ФАКТОРИ НАСТАВЕ ГЕОГРАФИЈЕ УСМЕРЕНИ НА УЧЕНИКА – ИЗ ПЕРСПЕКТИВЕ УЧЕНИКА

Апстракт Циљ овог рада су критичко сагледавање наставе географије са аспекта наставе усмерене на ученика и примени и аргументација за увођење битних промена у унутрашњој организацији наставе. Настава географије је вреднована у оквирима три групе фактора и то: засићености метода и облика наставе и учења; коришћења извора знања и медија као извора знања и средстава рада ученика и наставника; процеса и сврхе вредновања ученичких постигнућа. Истраживање је provedeno на узорку од 541 ученика другог разреда гимназија у Црној Гори, а инструменти коришћени у истраживању је конструисан према теорији теорије Ликерове скале ставова. Истраживање је показало да настава географије у гимназијама, посматрано кумулативно, у оквирима наведене групе фактора, још увек није настава усмерена на ученика. Такође, показало се да истраживани фактори наставе географије одражавају факторе наставе усмерене на ученика из перспективе ученика. Теоријски аспекти рада и резултати добијени истраживањем ставова ученика, треба да укажу наставнику на употребу и значај промена у битним семенима наставе географије, и буду корисни организаторима реформе образовања који имају потребу за знањима о променама у самом процесу, која нејасноћама још маже у спровођењу реформе.

Кључне речи: настава, географија, ученик, учење, методе рада, извори знања, вредновање постигнућа.

ФАКТОРЫ ОБУЧЕНИЯ ГЕОГРАФИИ – ИЗ ПЕРСПЕКТИВЫ УЧЕНИКА

Резюме

Цель данной статьи - критически обсудить преподавание географии с точки зрения ориентированного на ученика обучения, подходы и аргументацию для внесения важных изменений во внутреннюю организацию обучения. Преподавание географии оценивается на основе трех групп факторов: представленности методов и форм преподавания и обучения, использования источников знаний и средств массовой информации в качестве источника знаний для учащихся и преподавателей, процесса и цели оценки успеваемости учащихся. Исследование проведено на примере 541 ученика второго класса гимназии в Черногории, а инструмент, используемый в исследовании, построен по типу пятиступенчатой шкалы Ликерта. Результаты исследования показывают, что преподавание географии в гимназиях в рамках указанных групп факторов, до сих пор не является обучением, ориентированным на ученика. С другой стороны показано, что приведенные факторы преподавания географии по мнению учеников отражают факторы ориентированного на ученика обучения. Теоретический аспект работы и полученные при исследовании мнений учеников результаты, указывают на необходимость и значение изменений в основных сегментах преподавания географии, а результаты исследования могут быть использованы в работе преподавателей и в организации и проведении реформ в образовании.

Ключевые слова: преподавание, география, ученик, обучение, методы обучения, источник знания, оценка достижений.