

Student Perceptions of Research Work in Geography Teaching: Motivation, Difficulties, and Values

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Abstract

With the recent reform of the Geography curriculum in Croatia, the learning outcomes related to the research work have become one of the most important innovations. The first insight into the degree of achievement of these learning outcomes in the first years of their application has shown difficulties in data collection, processing, and analysis, as well as in proper citation and bibliography writing, while the overall degree of the learning outcomes achievement indicates that there is room for improvement. With the aim of gaining a more comprehensive insight into the student perceptions, students in Antun Gustav Matoš Grammar School in Samobor, whose work was analyzed in the study by Ivić et al. (2021), were interviewed. Although the results indicate relatively low levels of motivation and negative perceptions of the creation process, students' perceptions of the research as a very useful teaching practice provide a solid foundation for its further application.

Key words: *geography teaching; research work; students' motivation; students' perception.*

Introduction

At the beginning of the 2022/2023 school year, with frontal implementation of the reformed Geography curriculum in the 8th grade of primary schools, the four-year cycle of its implementation in primary and grammar schools in Croatia was completed. One of the most significant novelties of almost all new subject curricula is a relatively broad application of the research approach in learning and teaching. In terms of the learning outcome-defined requirements of research work, the subject curricula of

Geography and Biology have shown the greatest advancements. The first four years of the frontal implementation of these new approaches are a suitable time for initial insights into the state and perspectives of the of research work in Geography teaching. The first study that looked at the application of this teaching practice in Geography teaching in Croatia indicated that the procedures of data collection, processing, and analysis, as well as the correct citation of literature were the most challenging elements of the research process (Ivić et al., 2021). The success of the application of these instructional practices and the achievement of the intended functional goals, both at the level of the individual student and at the level of the entire national education system, depends on a whole set of interrelated factors. Given the modern advances in psychological and educational sciences, it is extremely important to consider the perspective of the end users of the above-mentioned new practices – the students. The question of how students perceive geographical research in a system where such an approach and practice is a formal novelty is of particular importance because motivation and human action generally depend on students' beliefs rather than objective reality (Bandura, 1997). Students' and teachers' acceptance or rejection of a particular practice is conditioned by the complex interplay of beliefs, ideas, and psychological images, which can be summarized under the common concept of identity (Domović & Vizek Vidović, 2013). Against this background, this paper aims to explore how students experience the practice of writing a scientific paper in the context of Geography teaching under the recently changed conditions of formal education, focusing on the perceived advantages and disadvantages, the level of student motivation, and the usefulness of the teaching practice.

Students' perceptions of the research work in previous examinations

Since research on this practice is still in its infancy in Croatia, and there are no relevant scientific papers analyzing how high school students perceive the research process and the process of writing research papers, this paper can be considered pioneering. However, there is a relatively large number of papers that problematize perceptions of research writing in the higher education context (Alhojailan, 2021; Babu, 2017; Turner et al., 2008; Dalsky & Tajino, 2007; Yeh, 2009), particularly among medical students (Imafuku et al., 2015; Osman, 2016; Vereijken et al., 2018; Vereijken et al., 2020; Visser-Wijnveen et al., 2015). The aforementioned papers show that writing a research paper increases students' beliefs in the relevance of the research process (Vereijken et al., 2020) as well as the credibility of the field in which the research is conducted (Turner et al., 2008; Visser-Wijnveen et al., 2015). In addition, conducting research involves an understanding of the constructive nature of knowledge (Vereijken et al., 2020; Imafuku et al., 2015) and leads to greater motivation and interest in the field being researched (Visser-Wijnveen et al., 2015; Erickson, 2001). Motivation for research is also related to the level of knowledge about the state of research in a field (Vereijken et al., 2018), as

well as the belief that the research process is important for their future academic and professional life (Vereijken et al., 2018; Babu, 2017; Yeh, 2009; Erickson, 2001, Dalsky & Tajino, 2007). Perceptions of the research process itself are influenced by previous experiences of research as well as personality traits (Vereijken et al., 2018). In addition, students believe they understand a scientific field better when they conduct their own research projects in it (Turner et al., 2008; Vereijken et al., 2018; Visser-Vijnveen et al., 2015). Research work also leads to better communication skills (Babu, 2017; Erickson, 2001), especially in terms of written communication. On the other hand, according to Osman (2016), the negative perception of research work is related to the fact that research requires a lot of time, especially when combined with the overly demanding “non-research” part of the curriculum. Visser-Wijnveen et al. (2015) add to this the excessive focus of teachers on research, which is often accompanied by a lack of interest in teaching (Visser-Wijnveen et al., 2015), and is seen as a long-term element contributing to negative perceptions of research. Yeh (2009) points to the need to provide a list of sources and literature to be used. The role of the cultural context of the education system and society in general has been highlighted in the work of Alhojailan (2021), among others. In the context of the influence of personal beliefs and identity on the perception of research work in teaching, the findings of Vereijken et al. (2018) are particularly significant, as they indicate that personal beliefs about the research work affect its success, and that mental associations of the research process with the learning process can help modify otherwise rather rigid and emotionally colored (Šimić Šašić et al., 2018) personal beliefs.

Methodology

The study of students’ perceptions of the process of writing a research paper in Geography teaching is a logical continuation of the initial analysis of students’ papers in the first two years of using this teaching practice, the results of which were published in the paper by Ivić et al. (2021). To investigate students’ perceptions of research, the interview method was used. At the time of the survey, the students were in the final grade of grammar school. In order to reflect the perceptions of the entire population of grammar school graduates as comprehensively as possible, students with varying levels of the learning outcomes achievement were included in the study. They were divided into three categories – the group with the best graded papers (A), the group with moderately graded papers (B), and the group with the lowest graded papers (C). Two students from each of the three classes were randomly selected from each group. A total of 18 interviewees were selected, 10 of whom were girls and eight were boys. These students participated in semi-structured interviews which were conducted in May 2021. With the consent of the students, the interviews were recorded and later transcribed and used as such in the analysis. Each interview contained six questions that focused on different elements of the students’ experiences of the research, specifically: 1) the perceived advantages and disadvantages, 2) the level of motivation, and 3) the

estimated value and benefits. MAXQDA 2022 software was used to code and analyze the collected material. Both authors independently coded the interviews, after which the codes were grouped and the central themes within each of the intended research objectives were identified. Each of the identified themes is illustrated by the students' statements. References to the statements indicate group membership in relation to the level of the learning outcomes achievement from the initial research (Student, A, B, or C). In addition to the themes mentioned, statements that relate to less represented research experiences that may provide direction for future research are highlighted. Finally, the results of the above-mentioned qualitative analysis were compared with the results of the quantitative analysis of the achieved learning outcomes elements from the initial research by Ivić et al. (2021).

Results

The qualitative analysis of the students' statements focused on several characteristic elements: motivation, perception of the process of writing a research paper, evaluation of the knowledge and skills acquired, and impression of the value and usefulness of writing a geographical research paper.

Motivation

Most interviewees pointed to the lack of motivation to perform tasks related to the learning outcomes of a research paper, regardless of their ultimate success in the research. Several basic themes can be identified that were mentioned by the interviewees as possible causes of the lack of motivation. The most pronounced cause is certainly the large amount of time required for this task, especially as it coincides with students' preparation for the State graduation exam:

I can't say it had a motivating effect on me, because at first it just seemed like too much work. (Student, A)

Geographical research didn't motivate me. I knew I'd have to spend a lot of time on it, which I don't have as a high school graduate, so I wasn't motivated. (Student, A)

In addition to the large amount of the time required, students' lack of motivation is also influenced by a number of personal reasons, which we could reduce to the common denominator of dislike for tasks involving written expression or prior literature analysis:

The research did not seem motivating to me because I do not like writing reports or giving presentations, and my entire being, my essence, cannot even stand the thought of a report! (Student, C)

Looking at the whole year, in my opinion, geographical research is the worst and most boring part of geography class because I know that I must spend several hours reading long scientific papers and other sources, and when you add the limited number of topics within Croatia, it becomes a tedious experience. (Student, C)

Interestingly, the reasons listed above were generally given by students whose work was rated as least successful (C) in the initial research. The lack of motivation due to a

dislike of written work was not observed in the statements of students from the group of those who were the most successful on the assignment (A). In the statements of the students indicating a (low) level of motivation, the pronounced cultural influence of the Croatian education system can be seen. It is clear that students have a strong preference for the established teaching practices which had been used for a long time (frontal teaching), as they offer them a higher level of security:

I prefer the classical teaching. (...) I like to write down everything for myself and then just memorize it; yes, that's the kind of person I am. (Student, C)

I don't think so, it makes me tired and I prefer to be in the usual class and just listen to the teacher. (Student, B)

So, for me personally, no. But I think we have a misconception about it because, let's say, we were taught in the classical way and this is all automated for us, and now, this is new, this is so... we did this research for the first time. (Student, C)

... it's easier for me to have a written or an oral exam because

I get ready-made material for it. (Student, C)

Furthermore, some students find the reason for their lack of motivation in the wrong choice of topics. It is completely understandable that students are less motivated to study a topic that does not interest them. These findings suggest that, from the students' point of view, one of the greatest values of this teaching practice is the individual approach and possibility to choose a topic:

I think I can also blame the choice of topics that I personally was not particularly interested in. I think I could have tried harder, especially in choosing a more interesting topic. (Student, A)

There is also a group of students who have a motivation problem at the beginning of the research work, but when they start researching and delve deeper into the chosen topic, their interest and motivation grow. These students especially emphasize the satisfaction with the final result of their research. In this sense, the extraordinary importance of feedback from teachers in writing and in the evaluation of research papers is recognized:

At the beginning and before the beginning, it doesn't seem very motivating to me, it seems like a kind of pressure because I know I will have to check all these references because I don't remember them at all, and I know I'm going to be nervous about whether I'm going to have time to write the paper. Research just seems motivating to me at the very end when we see what everything looks like, and when we know we worked hard, it feels good to see it that way in the end. (Student, B)

It's fun to learn if you put your mind to it, but it's also hard to get started... so probably only when I start, I feel good. (Student, C)

I always start researching a few days before the deadline, so I'm not very motivated at first, but when I start reading more about the topic, it becomes interesting to me. (Student, C)

Although the statements of students pointing to motivational problems in creating and writing a research paper are more numerous, several respondents find geographical research motivating. They justify this with the possibility of independent topic selection, which means that they choose a topic that is close to them personally, that interests them, and that is usually current. Here, the importance and value of the topic and (once again) individualized approach in Geography teaching were evident. In addition, activity, i.e., the students' own involvement, also contributes to motivation:

Compared to traditional classes, research work is very motivating for me because of the wide range of topics and because I think it can be more interesting and useful to research a topic independently without sometimes monotonously sitting in class and listening to presentations. (Student, A)

I think it's a bit more motivating [compared to traditional class] because we are looking for answers to the research question and learning something new, and the topic is usually interesting because we choose it ourselves. (Student, A)

I can research anything, any topic that interests me. So, I have a choice here. I went by what was current in Croatia. (Student, A)

Perception of the process of writing a research paper

In addition to the level of motivation as a significant initial factor, it was also important to observe how students perceive the process of writing a research paper, especially in the context of the Croatian education system where research procedures of independent data collection, processing and presentation, as well as the presentation of results are still relatively new. In line with the above-mentioned and already known findings about the influence of cultural heritage on the perception of new teaching approaches, it is not surprising that negative statements predominate among the students' personal perceptions of the process of writing a scientific paper. These include a large amount of time required to write a research paper, over-standardization of texts, especially in terms of citation style and the creation of a bibliography list, the selection of sources and the management of information, and finally a lack of experience. On the other hand, independent topic selection, which has already been mentioned, is seen as positive.

Geographical research requires much more time than any other school assignment that the students surveyed have been given. Regardless of how good the final result is, the majority of students point out that this task requires a lot of time, which is also recognized as one of the most important (negative) elements of students' perception of research in general:

The disadvantage of research is the duration of preparation and writing itself, on which we had to spend a lot of time. (Student, C)

It's exhausting because sometimes it's hard to get the information you need, and just finding that information takes 2-3 hours... (Student, B)

At the same time, students' problems with organizing their own time were observed, as the deadlines for writing the research paper were set within very reasonable time frames. In fact, students had the entire first semester to complete this assignment:

I think we were given too much time to do the research. I'm sure most students don't start research until ten days before the deadline (at least that's the case for me), and the whole time we're thinking about it and it is kind of bothering us, we're doing nothing and feeling guilty for being lazy. It would be better if the deadline was three weeks. (Student, C)

In the context of explaining the time-consuming nature of geographical research, some of the students are considering the relationship between the effort invested on the one hand and the benefit obtained on the other. In this sense, the effort invested is perceived as much greater than the benefit obtained:

(...) it takes a lot of time compared to the one, i.e., two grades we get. (Student, B)

In addition, there is often an increased negative perception of research work in terms of the time it takes, taking into account other school commitments, as well as the fact that some of the students start preparing for the State graduation exam in the first semester:

(...) and besides, in the fourth grade there are often intensive preparations for the State graduation exam, which take a lot of time, and there is a lot of time spent on research. (Student, C)

Apart from time, as in previous research (Yeh, 2009; Alhojailan, 2021), the negative side of research work perceived by many students is a high degree of standardization of the text, especially the rules related to citing and listing the literature. Since the highlighting of the difficulties related to citing and preparing bibliography coincides with the weakest results from the initial analysis of the same students' research papers (Ivić et al., 2021), it is obvious that students' perceptions, together with the results of the analysis of their papers, are an important indicator of the area that should be worked on. Besides, the rules for citing and formatting the bibliography are the main reason why students find writing a research paper a challenging task:

Well, I mean... it is challenging. But not to any particular degree. The technical things are more demanding. How the appendices must be listed properly, then with the bibliography, just that, the place where it should be, commas, etc. I think that's more challenging than the paper itself. (Student, A)

It's a bit complicated to write all the sources properly and generally pay attention to all the details and citations. (Student, C)

These sources were really complicated to do. We spent an hour and a half to two hours just working on the sources. (Student, C)

It's challenging to cite the sources correctly because no other teacher has ever asked us to cite like this, so it's totally new and a little complicated for us. (Student, B)

The third identified thematic unit in the students' statements concerns the lack of experience in similar teaching practices, which significantly influences the negative perception of the research work. This finding can certainly be related to the

mentioned influence of the cultural heritage of the education system, but also of society as a whole. Research work is thus, at least for a large part of the Croatian education system, a great novelty and a significant paradigm shift compared to the previously prevailing educational approaches and practices. In such a context, resistance and negative perceptions are a relatively expected phenomenon, at least in the first years of the application of the new teaching practice. According to the students' statements, it can be conditionally assumed that the consistent implementation of the subject curriculum, i.e., the gradual introduction of students to the research work from the 5th grade of elementary school to the 4th grade of grammar school, will be successful:

Considering that we started writing geographical research in the 3rd grade, we were not used to such criteria, so it was a bit of a shock in the beginning. (Student, A)

I think it should have been introduced in the first grade. I think it's a little late to start it in third grade. (Student, C)

The lack of experience in preparing and writing research papers can also be attributed to the fact that students negatively evaluate the preparation of research papers because they find it difficult to find adequate information, i.e., to select reliable sources:

There is a lot of information on the Internet and in books, and in some cases, it was quite difficult to decide what and how to formulate. (Student, A)

The disadvantage is that we were not sure if the sources we used were safe and of high quality. Yes, I memorized a lot, but again, I am not 100% sure that the sources we used were sufficient and safe, i.e., reliable. (Student, C)

The negative perception of some students was also caused by a limited number of research topics contained in the old curriculum which was valid at the time.¹ More specifically, in the fourth grade, students had to deal exclusively with topics related to the geography of Croatia, which caused dissatisfaction in some of them. But with the adoption and implementation of the new curriculum, the spatial limitation of research work topics no longer exists (although the curriculum suggests that the topic should be local):

In my opinion, it is a disadvantage that in 4th grade we were limited only to Croatia, although I know that it was a topic all year round. (Student, C)

For some students, the possible unfairness of the pair work² assessment had an additional effect on the negative perception of the research work, especially in the group of students with an identified high (A) and medium level of performance (B):

¹ The teaching practice of writing research papers in Antun Gustav Matoš Grammar School in Samobor has been applied in all classes since the school year 2019/2020, regardless of the different dynamics of frontal application of the new subject curriculum. The Decision on the adoption of the Curriculum for the subject of Geography for primary and grammar schools in the Republic of Croatia provides for the application of the new curriculum in the 1st grade during the school year 2019/2020, in the 2nd and 3rd grades in 2020/2021 and in the 4th grade at the beginning of the school year 2021/2022.

² Students wrote research papers in pairs.

It could be awkward, especially for the better students, if they're in a team with someone who isn't very committed or knows that they can take advantage of the person they're working with. But I think that's how it is in life in general, so it's also a good exercise. (Student, B)

Perception of value and acquired level of knowledge and skills

In contrast to the prevailing negative perceptions of the process of writing a research paper, attitudes toward the values of this teaching practice are widely recognized and are predominantly positive. Students clearly perceive the value of writing a research paper in Geography teaching for the development of specific geographical, as well as general, knowledge and skills. Regardless of differences in achieving the learning outcomes set in the curriculum, students almost invariably see geographical research as a good way to acquire skills that will be useful in their future education:

I am glad that we have now been "forced" to write such a text, for I expect many more such assignments during time at college. (Student, A)

The value of geographical research will certainly show at college when we do more serious research, since we were already familiar with it at school. (Student, C)

In addition to the skills related to the technique of writing academic papers that they expect to develop in the future, students also recognize the development of other general skills, such as working in pairs (groups), presenting research findings orally, and technical aspects of editing text, such as listing graphic material:

(...) it was fun to present and watch others present, so I would list that as a benefit as well. (Student, B)

We learn to work independently, how to organize and share tasks in a group. (Student, B)

A lot of people have started signing illustrations in presentations in other subjects since we have been doing it in Geography, so that's a kind of benefit too. (Student, B)

For the acquisition of the above-mentioned knowledge and skills, some of the students clearly recognize the importance of Geography as a school subject (of research work in geography teaching), especially in relation with other subjects, which is certainly useful feedback for the authors and implementers of the curriculum:

I would highlight the fact that it is a form of preparation for our future education. In Geography classes already now in high school we encounter this form of work. In other school subjects it is not a case. (Student, B)

The realization of acquiring a deeper and more lasting knowledge compared to the traditional forms of teaching is also recognized as a value of geographical research. The prevailing opinion of the interlocutors is that the knowledge and skills acquired during the preparation and writing of a research paper are deeper than those acquired through traditional teaching, and students consider them more durable. In addition, geographical research has been found to promote the development of metacognition,

that is, awareness of one's own thought processes. This is especially true for the group of students who achieved the best results (A):

I believe that this is the right way of learning (...). During geographical research, you have to spend a lot of time on the topic you are studying, which automatically means that you go deeper into the problem. (Student, A)

I think that the knowledge is better than in traditional classes because we come up with the answer ourselves instead of learning something already given, and we design the text of the research and adapt the information we find, so it is easier to memorize it. (Student, A)

We have to conclude some things, so we have to think about (...) what we did and what we wrote. (Student, A)

Within the context of the depth and retention of the knowledge acquired, it is worth mentioning the group of students who state that they have acquired broader, but not necessarily more permanent knowledge by writing a research paper. At the same time, a smaller number of students revealed doubts at both levels, depth and retention:

I was not familiar with the subject of Bollywood, so I learned a lot while I was researching, but I have since forgotten most of it. (Student, A)

This aspect of students' perception of geographical research may have something to do with cultural heritage. Indeed, students who have seen little or no progress in their own knowledge gained from writing a research paper feel more comfortable in educational situations they are already familiar with. This is especially true when students weigh the amount of work and time involved with potential personal benefit, and is evident even in the group of the most successful students (A):

I prefer traditional teaching, but it should also change a little bit... (Student, C)
What I would like to mention is that the teacher's lessons are very interesting... I think I learned more in class than in the last geographical research... (Student, A)
I think knowledge is just as good because we can learn what we are researching about pretty well through research, but traditional teaching is a little bit better because it does not take so much time for the same thing. (Student, B)

Discussion and conclusion

The large amount of time spent on the assignment (especially in the context of a multitude of school commitments and preparation for the State graduation exam) is the most salient element in students' perceptions of geographical research, but it is also the most important factor negatively affecting their perceptions of the process of writing a research paper and the level of student motivation. These results are in line with previous research in which time consumption was also identified as one of the most important factors affecting students' negative perception (Osman, 2016). Considering the fact that research work is a relatively new practice in Croatia and that students are confronted with new procedures for the first time in their formal

education, the problem of time consumption may be even more pronounced. The factor mentioned above, as well as some other factors, can certainly be interpreted in the context of the influence of the cultural heritage of the Croatian education system, which largely changed the basic paradigm with the recent curricular reform. Therefore, resistance can be expected due to the large number of new approaches, especially in the first years of implementation. Comparison of new teaching approaches and practices with the existing and already known system is relatively frequently found in students' statements about their perceptions of geographical research. Significantly, students emphasize a greater preference for the established routines, especially when it comes to the relationship between what is spent (time and effort) and what is gained (grades). Traditional teaching is generally seen as more useful, which is consistent with the results of studies in countries where research is a significant departure from the established teaching practices (Alhojailan, 2021). On the other hand, the possibility of independent topic selection and the application of the actualization principle were recognized as the strongest factors in increasing students' motivation to write a research paper. In this sense, the importance of an individual approach is acknowledged in the context of Geography teaching, which, due to its interdisciplinary nature, can support different students' interests more than any other school subject. It is in this sense that one must interpret the statements of the students, who emphasize the progressive character of their motivation, i.e., the growth of motivation parallel to the progress of the research and writing process. Students' motivation is certainly related to their perception of the process of writing a research paper. In line with the results obtained, but also with findings from previous research, students most often perceive research work as an extremely time-consuming (Osman, 2016) and a highly standardized activity (Yeh, 2009; Alhojailan, 2021), which they feel very inexperienced in and unprepared for (Vereijken et al., 2018), especially in independent analysis of the available sources and literature, as well as data collection, processing, and presentation (Ivić et al., 2021).

Despite the fact that the findings indicate a lower level of motivation and the prevailing negative perceptions of the research paper writing process, students acknowledge the value of this teaching practice almost without exception. It is also important to note that previous findings on the impact of continuous research paper writing practice on students' beliefs about the relevance of research in general (Vereijken et al., 2020) have been confirmed. Students' perceptions of the relevance of geographical research and associating the research process with the acquisition of knowledge and skills are extremely important findings, as individuals' professional behavior largely depends on their attitudes and beliefs, which are usually difficult to change (Šimić Šašić et al., 2018). For this reason, the prevailing positive perception of the importance and benefits of geographical research among students can and should serve as a basis for the future development of research work and, more generally, the research approach in geography education. Among the most important positive students' expressions regarding the meaningfulness of research work, attitudes about the usefulness of this practice for the

continuation of their education, especially in the field of writing seminars, evaluations, and other academic papers, should be emphasized. In addition, students recognize the value of developing specific geographical skills, as well as general skills such as creating and analyzing graphs or text editing. Students' perception that the knowledge they gain from writing geographical research papers is deeper and more lasting contributes to positive perceptions and attitudes towards research work, which is consistent with the findings of other authors (Vereijken et al., 2020; Imafuku et al., 2015).

Regardless of the objective difficulties that are a natural consequence of getting used to a new practice and approach, students' positive perception of the value of geographical research provides a solid foundation for the development and application of this practice in Geography teaching and in the entire Croatian education system. Significant negative perceptions of students towards the process of writing a research paper and a relatively low level of motivation are expected reactions, especially considering the lack of experience. Even though the negative attitude may be related to the established habits and cultural heritage, the identified problems should be recognized in a constructive sense and used as guidelines for further improvement of this teaching practice. In order to gain a full insight into students' perceptions, attitudes and beliefs, it would certainly be worthwhile to re-examine them among students confronted with the above-mentioned teaching practice in earlier education cycles, i.e., in the beginning of their formal Geography education in the fifth grade and preferably after the end of each education cycle.

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Učenička percepcija istraživačkoga rada u nastavi geografije: motivacija, teškoće i vrijednosti

Sažetak

Odgojno-obrazovni ishodi koji pred učenike stavljaju izazov izrade istraživačkoga rada predstavljaju jednu od najvećih novina novoga predmetnog kurikula Geografije. Inicijalni uvid u razinu ostvarenosti tih ishoda nakon prvih godina njihove primjene pokazao je da postoji značajan prostor za daljnji napredak jer su detektirane poteškoće u prikupljanju, obradi i analizi podataka, kao i pravilnom citiranju i sastavljanju popisa literature. S ciljem dobivanja uvida u učeničku percepciju istraživačkoga rada, intervjuirani su učenici Gimnazije Antuna Gustava Matoša u Samoboru čiji su istraživački radovi analizirani u studiji Ivića i sur. (2021). Iako rezultati upućuju na relativno nisku razinu motivacije i pretežito negativnu percepciju procesa izrade istraživačkoga rada, učenička percepcija istraživanja kao vrlo korisne nastavne prakse daju dobru osnovu za njegovo usavršavanje i daljnju primjenu.

Ključne riječi: *istraživački rad; nastava geografije; učenička motivacija; učenička percepcija.*

Uvod

Početak školske godine 2022./2023., frontalnom primjenom u 8. razredu osnovne škole, zatvoren je četverogodišnji ciklus implementacije reformiranoga predmetnog kurikula Geografije u osnovne škole i gimnazije u Republici Hrvatskoj. Jedan od najznačajnijih noviteta gotovo svih novih predmetnih kurikula, u odnosu na planove i programe koji više nisu na snazi, jest razmjerno široka primjena istraživačkoga pristupa u učenju i poučavanju. U smislu ishoda definiranih zahtjeva istraživačkoga rada i istraživačkoga postupka, najdalje su otišli predmetni kurikuli Geografije i Biologije. Prve četiri godine frontalne implementacije novih pristupa u nastavi geografije, pogodno su vrijeme za inicijalne uvide u stanje i perspektive provedbe istraživačkoga rada. Prva istraživanja koja se bave primjenom ove nastavne prakse u nastavi geografije u Hrvatskoj ukazala su na ključne probleme iz perspektive ostvarenosti ishoda koji se odnose na provedbu istraživačkoga postupka i pisanje istraživačkoga rada. U tom su smislu postupci prikupljanja, obrade i analize podataka te ispravno citiranje i navođenje

literature prepoznati kao učenicima najizazovniji elementi istraživačkoga procesa (Ivić i sur., 2021). Uspjeh primjene ove nastavne prakse i ostvarivanje planiranih funkcionalnih ciljeva, kako na razini učenika-pojedinca, tako i na razini čitavoga nacionalnog obrazovnog sustava, ovise o čitavom nizu spregnutih čimbenika. U svjetlu suvremenih dosega psihologijskih i obrazovnih znanosti, pri relevantnim analizama navedenih čimbenika iznimno je važno u obzir uzeti i perspektivu krajnjih korisnika navedenih novih praksi – učenika. Pitanje učeničke percepcije geografskoga istraživanja, unutar sustava u kojemu je takav pristup i praksa formalna novost, neobično je važan jer razina motivacije, afektivnost i uopće ljudsko djelovanje proizlaze iz onoga u što učenici vjeruju, a ne iz objektivne stvarnosti (Bandura, 1997). Ponašanje je stoga, u smislu prihvaćanja ili odbacivanja određene prakse kod učenika i/ili nastavnika, uvjetovano složenim međudjelovanjem uvjerenja, ideja i psiholoških slika o sebi koje možemo okupiti pod zajedničkim pojmom identiteta (Domović i Vizek Vidović, 2013). S obzirom na sve navedeno, cilj je ovoga rada ispitati kako učenici unutar recentno izmijenjenih okolnosti formalnoga obrazovanja u Hrvatskoj doživljavaju praksu pisanja istraživačkoga rada u okviru nastave geografije. Unutar navedenoga cilja, poseban će naglasak biti na percipiranim prednostima i nedostacima geografskoga istraživanja, razini motiviranosti učenika za izradu istraživačkih radova te dojmovima o vrijednosti i korisnosti (n)ove nastavne prakse.

Percepcija istraživačkoga rada u dosadašnjim istraživanjima

Budući da istaknutijih znanstvenih radova koji se bave percepcijom učenika srednjih škola o provedbi istraživačkoga postupka i pisanju istraživačkih radova nema, a i s obzirom na činjenicu da su u Hrvatskoj istraživanja ove nastavne prakse tek u začetcima, ovaj se rad može smatrati pionirskim. Međutim, postoji razmjerno velik broj radova koji problematiziraju percepciju istraživačkoga rada u visokoobrazovnom kontekstu (Alhojailan, 2021; Babu, 2017; Turner i sur., 2008; Dalsky i Tajino, 2007; Yeh, 2009), a osobito među studentima medicine (Imafuku i sur., 2015; Osman, 2016; Vereijken i sur., 2018; Vereijken i sur., 2020; Visser-Wijnveen i sur., 2015 i drugi). Navedeni radovi pokazuju da izrada istraživačkoga rada rezultira vjerovanjem studenata u relevantnost istraživačkoga procesa (Vereijken i sur., 2020), kao i u vjerodostojnost područja u kojem se istraživanje provodi (Turner i sur., 2008; Visser-Wijnveen i sur., 2015). Također, provedba istraživanja znači usvajanje razumijevanja konstruktivne prirode znanja (Vereijken i sur., 2020; Imafuku i sur., 2015), a rezultira i većom motivacijom te interesom za istraživano područje (Visser-Wijnveen i sur., 2015; Erickson, 2001). Motivacija za istraživanjem, nadalje, povezuje se sa stupnjem do kojeg studenti poznaju stanje istraženosti nekog područja (Vereijken i sur., 2018), kao i s vjerovanjem da je istraživački postupak važan za njihov budući akademski i/ili poslovni život (Vereijken i sur., 2018; Babu, 2017; Yeh, 2009; Erickson, 2001; Dalsky i Tajino, 2007). Naravno, na samu percepciju istraživačkoga rada utječu i prethodna iskustva s istraživanjem, kao i

osobine ličnosti (Vereijken i sur., 2018). Nadalje, studenti vjeruju da uspješnije uče i da bolje razumiju znanstveno područje izrađuju li u njemu vlastite istraživačke projekte (Turner i sur., 2008; Vereijken i sur., 2018; Visser-Vijnveen i sur., 2015). Istraživački rad rezultira i boljim komunikacijskim vještim (Babu, 2017; Erickson, 2001) i to prije svega s aspekta pisane komunikacije. S druge strane, negativna percepcija istraživačkoga rada, prema Osmanu (2016), vezuje se uz činjenicu da istraživanje zahtjeva mnogo vremena, naročito u kombinaciji s prezahtjevnim „neistraživačkim“ dijelom kurikula. Visser-Wijnveen i sur. (2015) tome dodaju pretjeran fokus nastavnika na istraživanje koji često prati manjak interesa za poučavanjem (Visser-Wijnveen i sur., 2015), a kao dugoročni element koji doprinosi negativnoj percepciji istraživačkoga rada Yeh (2009) ističe nužnost sastavljanja popisa korištenih izvora i literature. Uloga kulturnoga konteksta obrazovnoga sustava i društva uopće, između ostaloga, naglašena je u radu Alhojailan (2021). U kontekstu utjecaja osobnih uvjerenja i identiteta na percepciju istraživačkoga rada u nastavi, posebno su značajni nalazi Vereijken i sur. (2018) koji upućuju na činjenicu da su osobna uvjerenja o istraživačkom radu povezana s uspjehom u njegovoj izradi te da je misaono povezivanje procesa istraživanja s procesom učenja jedan od načina modifikacije inače prilično fiksnih, teško promjenjivih i emocionalno obojenih osobnih uvjerenja (Šimić Šašić i sur., 2018).

Metodologija

Istraživanje učeničke percepcije procesa izrade istraživačkoga rada u nastavi geografije logičan je nastavak inicijalne analize učeničkih radova nakon prve dvije godine primjene ove nastavne prakse čiji su rezultati objavljeni u radu Ivića i sur. (2021). S ciljem kvalitativnoga ispitivanja učeničke percepcije istraživačkih radova, primijenjena je metoda intervjuiranja. U trenutku provođenja intervjua, ispitani su učenici pohađali završni razred gimnazije. Kako bi dobiveni rezultati što obuhvatnije odražavali percepciju čitave populacije maturanata samoborske Gimnazije, nastojalo se obuhvatiti učenike s različitom razinom ostvarenosti odgojno-obrazovnih ishoda. S tim ciljem, učenici su podijeljeni u tri kategorije – skupinu s najbolje ocijenjenim radovima (A), skupinu sa srednje ocijenjenim radovima (B) te skupinu s najslabije ocijenjenim radovima (C). Zatim je iz svake skupine slučajnim odabirom odabrano po dvoje učenika iz svakog od tri razredna odjela. Na taj je način odabrano 18 sugovornika, od čega deset djevojaka i osmorica mladića, s kojima su u svibnju 2021. godine provedeni polustrukturirani intervjui. Razgovori su, uz privolu učenika, snimani te su kasnije transkribirani i kao takvi korišteni u analizi. Svaki intervju sadržavao je šest pitanja usmjerenih na različite elemente učeničkoga doživljaja istraživačkoga rada, napose 1) percipirane prednosti i nedostatke, 2) razinu motivacije te 3) procijenjenu vrijednost i korisnost. Za kodiranje i analizu prikupljenih materijala korišten je softver MAXQDA 2022. Oba autora samostalno su kodirala intervjue, nakon čega su kodovi grupirani te su prepoznate središnje teme (problemi) unutar svakog od predviđenih ciljeva istraživanja. Svaka od prepoznatih tema oprmjerenjena je navodima učenika. Reference

uz navode upućuju na pripadnost skupini s obzirom na razinu ostvarenosti ishoda u inicijalnom istraživanju (Učenik/ca, A, B ili C). Osim navedenih tema (problema), istaknuti su iskazi koji mogu upućivati na manje zastupljene, ali za buduća istraživanja indikativne doživljaje istraživačkoga rada. Rezultati navedene kvalitativne analize na koncu su uspoređeni i s rezultatima kvantitativne analize ostvarenosti elemenata ishoda iz inicijalnoga istraživanja (Ivić i sur., 2021).

Rezultati

Kvalitativna analiza učeničkih iskaza bila je usredotočena na nekoliko karakterističnih elemenata: motivaciju, percepciju procesa izrade istraživačkoga rada, procjenu stečenih znanja i vještina te dojam vrijednosti, svrhovitosti i korisnosti izrade geografskoga istraživanja.

Motivacija

Većina je sugovornika istaknula manjak ili nepostojanje motivacije za obavljanje zadataka vezanih uz ishode koji se odnose na pisanje istraživačkoga rada, neovisno o njihovom krajnjem uspjehu u istraživanju. Pri tome se može prepoznati nekoliko osnovnih tema (problema) koje sugovornici nude kao moguće uzroke nedostatka motivacije. Najizraženiji je uzrok svakako velika količina vremena potrebna za obavljanje ovoga zadatka, naročito u kontekstu istovremenih priprema za polaganje ispita državne mature:

*Ne mogu reći da je na mene djelovao motivirajuće jer mi se na početku činilo kao jednostavno previše posla. (Učenica, A)
Geografsko istraživanje me nije motiviralo. Znala sam da ću na njega morati utrošiti mnogo vremena koje kao maturant nemam previše, pa iz tog razloga nisam bila motivirana. (Učenica, A)*

Osim velikoga utroška vremena, na nedostatak motivacije među učenicima utječe i niz osobnih razloga, koje bismo mogli staviti pod zajednički nazivnik nesklonosti prema zadacima koji uključuju pisano izražavanje ili prethodnu analizu literature:

Na mene rad nije djelovao motivirajuće zbog toga što ne volim pisati referate niti izrađivati prezentacije, a svaku pomisao na referat moja esencija, bit, bitak ne podnosi! (Učenik, C)

Uzimajući u obzir cijelu godinu, geografsko istraživanje je po meni najgori i najdosadniji dio nastave geografije jer znam da me čeka nekoliko sati čitanja dugih znanstvenih radova i drugih izvora i onda kada se k tome pridoda i ograničenost tema kao što je Hrvatska, onda to ispada mukotrpno iskustvo. (Učenik, C)

Zanimljivo, navedene su razloge obično navodili učenici čiji su radovi u inicijalnom istraživanju ocijenjeni najmanje uspješnima (C). Manjak motivacije uzrokovan nesklonošću prema pisanim radovima nije opažen u iskazima učenika iz skupine onih koji su najuspješnije obavili zadatak (A). U iskazima učenika koji upućuju na

(nisku) razinu motivacije, moguće je prepoznati izražen kulturni utjecaj hrvatskoga obrazovnog sustava. Naime, jasno se ocrtava sklonost učenika prema ustaljenim i do sada primjenjivanim nastavnim praksama (klasična frontalna nastava) budući da već poznati nastavni konteksti, uvjetno rečeno, pružaju učenicima višu razinu komfora:

*Dražja mi je klasična nastava. (...) Volim si sve napisat
i naštrebat, da, takav sam tip. (Učenica, C)*

*Mislim da ne, više me umara i draže mi je biti na
klasičnoj nastavi i slušati profesora. (Učenica, B)*

*Pa, na mene osobno ne. Ali, mislim da imamo krivi pogled na to
zato što smo, ono, ajmo reć, naučeni, kak velite, klasičnu nastavu i
to nam je, ono, automatizirano sve, i sad, neš novo, to je onak, mi
smo sad prvi put s vama radili ta istraživanja. (Učenik, C)*

*... lakše mi je pisati test ili odgovarati jer za to
dobijem gotov materijal. (Učenica, C)*

Uz sve navedeno, neki učenici razlog svoje nemotiviranosti pronalaze u pogrešnom odabiru teme. Posve je razumljivo da će učenici biti manje motivirani baviti se temom koja ih ne zanima. Ovakvi nalazi upućuju i na činjenicu da je individualiziran pristup i odabir teme rada, iz perspektive učenika, jedna od najvećih vrijednosti primjene ove nastavne prakse:

*Mislim da mogu okriviti i izbor tema koje meni osobno nisu
bile osobito intrigantne. Smatram da sam se mogla više potruditi,
ponajprije oko izbora zanimljivije teme. (Učenica, A)*

Zanimljiva je skupina učenika koja pri početku izrade istraživačkoga rada ima problem s motivacijom, no kad počnu istraživati i dublje ulaziti u odabranu temu, raste im interes i motivacija. Takvi učenici posebno ističu zadovoljstvo s konačnim rezultatom svojega istraživanja. U tom se smislu prepoznaje iznimna važnosti povratnih informacija koje im je tijekom pisanja dao nastavnik i prilikom vrednovanja istraživačkoga rada:

*Na početku i prije početka mi ne djeluje baš motivirajuće, već kao neka tlaka
jer znam da ću morati provjeravati sva ova potpisivanja jer to nikako ne mogu
zapamtiti i jer znam da ću se živcirati hoću li stići to napisat. Istraživanje meni
djeluje motivirajuće tek na kraju kad napišemo pa vidimo kako to sve izgleda i kad
znamo da smo se potrudili, dobar je osjećaj to tako vidjeti na kraju. (Učenik, B)*

*Zabavno je učiti kad se ufuraš u to, al opet, teško je započeti... Meni je super kad
učim, tak da vjerojatno i ovo, kad se zalaufam onda mi je lijepo. (Učenik, C)*

*Uvijek krenem raditi istraživanje nekoliko dana prije roka tako da nisam baš
motivirana u početku, ali kad počnem više čitati o toj temi onda mi postane
zanimljivo i kao što sam već rekla, volim raditi prezentacije, referate i istraživanja
jer puno više naučim kad samostalno istražujem o nekoj temi. (Učenica, C)*

Iako prevladavaju iskazi učenika koji ističu probleme s motivacijom pri izradi i pisanju istraživačkoga rada, na trećinu sugovornika geografsko istraživanja djeluje

motivirajuće. Objašnjavaju to mogućnošću samostalnoga odabira teme što znači da će izabrati temu koja im je osobno bliska i zanimljiva te koja je u pravilu aktualna. Dakle, tu osobito dolazi na vidjelo važnost i vrijednost principa aktualizacije te (ponovo) individualiziranoga pristupa u nastavi geografije. Osim toga, motivaciji pridonosi i aktivnost, odnosno vlastiti angažman učenika:

U usporedbi s klasičnom nastavom, istraživački rad djeluje vrlo motivirajuće na mene zbog širokog spektra odabira tema i jer smatram da može biti zanimljivije i korisnije istraživati o nekoj temi samostalno, bez nekad monotonog sjedenja u razredu i slušanja prezentacija. (Učenica, A)
Mislim da djeluje malo više motivirajuće [od klasičnih praksi] zato što sami istražujemo odgovore na istraživačko pitanje i usput naučimo nešto novo, a tema je uglavnom zanimljiva jer ju sami biramo. (Učenica, A)
Mogu istraživati o bilo čemu, o nekoj temi koja me zanima.
Dakle, tu imam mogućnost biranja. Berala sam na osnovi onog što je nekako bilo aktualno u Hrvatskoj. (Učenica, A)

Percepcija procesa izrade istraživačkoga rada

Osim razine motivacije kao važnoga inicijalnog čimbenika, važno nam je bilo promotriti i učeničku percepciju samoga procesa izrade istraživačkoga rada, osobito u kontekstu hrvatskoga obrazovnog sustava u kojemu su istraživačke procedure samostalnoga prikupljanja, obrade i prikazivanja podataka te znanstvenoga izvještavanja i predstavljanja rezultata u nastavi još uvijek razmjerno velika novost. Sukladno navedenome i već poznatim spoznajama o utjecaju kulturnoga nasljeđa na percepciju ovakvih (tj. novih) nastavnih pristupa, ne iznenađuje činjenica da među osobnim percepcijama učenika o procesu izrade istraživačkoga rada prevladavaju negativni iskazi. Primjerice, velik utrošak vremena za izradu istraživačkoga rada, prevelika normiranost teksta, osobito u smislu citiranja i sastavljanja popisa literature, zatim odabir izvora i upravljanje informacijama te konačno, manjak iskustva. Pozitivna percepcija, s druge su strane, usmjerena je većinom prema mogućnosti samostalnoga izbora teme, o čemu je već bilo riječi.

Geografsko istraživanje zahtijeva mnogo više vremena od bilo koje druge školske obveze s kojom su se ispitani učenici susreli. Neovisno o konačnoj razini ostvarenosti ishoda vezanih uz istraživački rad, većina učenika ističe da taj zadatak zahtijeva mnogo vremena, što je prepoznato i kao jedan od najznačajnijih (negativnih) elemenata učenike percepcije istraživanja uopće:

Nedostatak istraživanja je trajanje same izrade na koju smo morali utrošiti podosta vremena. (Učenik, C)
Zahtjevno je zato sto je nekad teško doći do traženih informacija i samo traženje tih informacija traje po 2-3 sata... (Učenica, B)

Istovremeno, uočeni su problemi učenika s organizacijom vlastitoga vremena jer su rokovi za izradu istraživačkoga rada bili postavljeni u vrlo razumne vremenske

okvire. Naime, učenici su na raspologanju za obavljanje ovoga zadatka imali cijelo prvo polugodište:

Mislim da smo dobili previše vremena za izradu istraživanja. Siguran sam da većina učenika krene s izradom istraživanja tek deset dana prije roka (ili je to sam kod mene slučaj), a cijelo vrijeme razmišljamo o tome i zabrinjava nas na neki način, ništa ne poduzimamo u vezi toga i imamo osjećaj krivnje što smo lijeni. Bilo bi bolje da je rok za izradu tri tjedna. (Učenik, C)

U kontekstu obrazlaganja vremenske zahtjevnosti geografskoga istraživanja, razmišljanja dijela učenika idu u smjeru razmatranja odnosa utrošenoga vremena i uloženoga truda s jedne strane te ostvarene koristi (sumativno vrednovanje) s druge strane. U tom smislu, uloženi trud percipira se mnogo većim od dobivene koristi:

(...) oduzima puno vremena u odnosu na jednu, tj. dvije ocjene koje dobijemo. (Učenik, B)

Tomu treba dodati često pojačanu negativnu percepciju istraživačkoga rada vezanu za ulaganje vremena imajući u vidu ostale školske obveze, kao i činjenicu da je dio učenika (već) tijekom prvoga polugodišta počeo pohađati pripreme za polaganje ispita državne mature:

(...) i uz to, u četvrtom razredu su često intenzivne pripreme za maturu koja zahtijeva puno vremena, a na istraživanja odlazi puno vremena. (Učenik, C)

Osim uloženoga vremena, kao i u prethodnim istraživanjima (Yeh, 2009; Alhojailan, 2021), negativnom stranom istraživačkoga rada velik dio učenika percipira i visok stupanj normiranosti teksta, osobito pravila vezana za citiranje te popisivanje literature. Kako se isticanje poteškoća vezanih uz citiranje i oblikovanje popisa literature podudara s najslabije ostvarenim ishodima iz inicijalne analize istraživačkih radova istih učenika (Ivić i sur., 2021), očigledno je da učenička percepcija, zajedno s rezultatima analize njihovih radova, izvrstan indikator područja na kojem bi dodatno trebalo raditi. Osim toga, upravo su pravila za citiranje i oblikovanje popisa literature glavni razlog zbog kojih učenici percipiraju izradu istraživačkoga rada kao zahtjevan zadatak:

Pa mislim... je zahtjevno. Ali ne u velikoj mjeri. Zahtjevne su više te tehničke stvari. Kako se mora pravilno potpisivati prilozima, onda kod popisa literatura, baš ono, točka gdje se treba stavljati, zarez... Mislim da je to zahtjevnije nego sam rad. (Učenica, A)

Malo je komplicirano potpisati sve izvore na pravilan način i općenito paziti na sve detalje i citiranje. (Učenica, C)

Ti izvori su stvarno bili komplicirani jako za napraviti. Sat i pol do dva radile smo samo izvore. (Učenica, C)

Zahtjevno je pravilno navesti izvore jer nas niti jedan profesor nikad do sad nije tražio da to na taj način navodimo pa nam je to skroz novo i malo komplicirano. (Učenik, B)

Treća prepoznata tematska cjelina unutar učeničkih iskaza tiče se manjka iskustva s takvim i sličnim nastavnim praksama, što značajno utječe na negativnu percepciju izrade istraživačkoga rada. Ovaj nalaz svakako se može referirati na već spomenut utjecaj kulturnoga nasljeđa obrazovnoga sustava, ali i društva u cjelini. Istraživački je rad tako, barem za veći dio našega obrazovnog sustava velika novost i značajna promjena paradigme u odnosu na dosad prevladavajuće obrazovne pristupe i prakse. U takvom kontekstu, otpori i negativna percepcija razmjerno su očekivana pojava, barem u početnim godinama primjene neke (nove) nastavne prakse. Sukladno iskazima učenika, uvjetno se može pretpostaviti da bi se dosljednim provođenjem predmetnoga *Kurikuluma*, odnosno postupnim uvođenjem učenika u istraživački rad od 5. razreda osnovne škole do 4. razreda gimnazije, osigurao kontinuitet nužno potreban za ostvarivanje visoke razine predviđenih odgojno-obrazovnih ishoda vezanih za istraživački rad:

S obzirom da smo počeli pisati geografska istraživanja u 3. srednje, nismo navikli na takve kriterije pa je isprva bio mali šok. (Učenica, A)
Mislim da se trebalo to uvesti od prvog razreda. Mislim da je malo prekasno krenut od trećeg. (Učenica, C)

Manjku iskustva s pripremom i pisanjem istraživačkih radova može se pripisati i učenička negativna percepcija njegove izrade uzrokovana problemom pronalaženja adekvatnih informacija, odnosno odabira pouzdanih izvora:

Informacija po internetu i u knjigama ima stvarno puno i u nekim je slučajevima bilo podosta teško odlučiti se što i kako formulirati. (Učenica, A)
Nedostatak bi bio što nismo sigurne u sigurnost i kvalitetu izvora koje smo koristile. Da, zapamtila sam dosta toga, ali opet nisam 100 % sigurna da su izvori koje smo koristile bili dovoljni i sigurni, to jest pouzdani. (Učenica, C)

Negativnoj percepciji dijela učenika pridonio je i dojam limitiranosti mogućih tema istraživanja koji je bio povezan s tada aktualnim nastavnim planom i programom za 4. razred gimnazije.³ Preciznije, učenici su se morali baviti isključivo temama vezanim za geografiju Hrvatske, što je kod dijela njih izazvalo nezadovoljstvo. Donošenjem i provođenjem novoga predmetnog *Kurikuluma*, takva limitiranost pri odabiru teme istraživačkoga rada izostaje, premda *Kurikulum* istovremeno sugerira da teme istraživačkoga rada budu lokalne:

Nedostatak bi po mom mišljenju bio taj što smo u 4. razredu bili ograničeni samo na Hrvatsku iako razumijem da je ona bila tema kroz cijelu godinu. (Učenik, C)

³ Nastavna je praksa pisanja istraživačkih radova u Gimnaziji A. G. Matoša u Samoboru primijenjena u svim razredima od školske godine 2019./2020., bez obzira na različitu dinamiku frontalne primjene novoga predmetnoga *Kurikuluma*. Odlukom o donošenju kurikula za nastavni predmet Geografije za osnovne škole i gimnazije u Republici Hrvatskoj predviđena je primjena novoga kurikula u 1. razredu šk. god. 2019./2020., u 2. i 3. razredu 2020./2021., a u 4. razredu početkom 2021./2022.

Kod pojedinih je učenika potencijalna nepravednost (neobjektivnost) ocjenjivanja rada u paru⁴ dodatno utjecala na negativnu percepciju istraživačkoga rada, osobito u skupini učenika s utvrđenom visokom (A) i srednjom razinom postignuća (B):

Moglo bi biti nezgodno, pogotovo za ove bolje učenike ako su u ekipi s nekim tko baš i nije sklon izvršavanju obveza ili zna da može iskoristiti osobu s kojom radi.

Ali dobro, tako je valjda i u životu općenito pa je i to dobra vježba. (Učenica, B)

Percepcija vrijednosti i razine stečenoga znanja i vještina

Za razliku od prevladavajuće negativne učeničke percepcije procesa izrade istraživačkoga rada, stavovi prema vrijednostima ove nastavne prakse široko su prepoznati i pretežno su pozitivni. Naime, učenici jasno percipiraju vrijednosti prakse izrade i pisanja istraživačkoga rada u nastavi geografije za razvoj specifičnih geografskih, ali i generičkih znanja i vještina. Naime, bez obzira na razlike u ostvarenosti ishoda, učenici geografsko istraživanje gotovo bez iznimke percipiraju kao dobar način stjecanja vještina koje će im biti korisne u budućem obrazovanju:

Drago mi je da smo bili „prisiljeni“ već sada se suočiti s pisanjem takvog teksta jer očekujem puno više takvih zadataka tijekom fakulteta. (Učenica, A)

Vrijednost geografskog istraživanja će se zasigurno pokazati na fakultetu, pri izradi ozbiljniji radova, jer smo s time već bili upoznati u srednjoj školi. (Učenik, C)

Osim vještina vezanih za tehniku pisanja akademskih radova koji ih očekuju u budućnosti, učenici prepoznaju i razvoj ostalih generičkih vještina, poput rada u paru (u skupini), usmenoga izlaganja rezultata istraživanja te tehničkih aspekata uređivanja teksta poput potpisivanja grafičkih priloga:

... zabavno je bilo prezentirati i gledati druge kako prezentiraju, tako da bih i to naveo kao nekakvu korist. (Učenik, B)

Učimo biti samostalni u radu, kako se organizirati i podijeliti poslove u grupi. (Učenica, B)

Puno je ljudi počelo potpisivati slike na prezentacijama iz drugih predmeta otkad smo se tim na geografiji bavili, tako da je i to neki oblik korisnosti. (Učenik, B)

Za stjecanje navedenih znanja i vještina, dio učenika jasno prepoznaje važnost nastave geografije (geografskoga istraživanja), naročito u odnosu prema drugim nastavnim predmetima, što je svakako korisna povratna informacija za autore i provoditelje predmetnoga Kurikuluma:

[Kao prednost bih] izdvojio to što je to oblik pripreme za buduće akademsko obrazovanje. Na geografiji se već u srednjoj školi susrećemo s takvim oblikom rada, a na drugim predmetima to nije stvar. (Učenik, B)

⁴ Učenici su istraživačke radove pisali u parovima.

Percepcija stjecanja dubljega i trajnijega znanja u odnosu na klasične oblike nastave, također je prepoznata kao vrijednosti geografskoga istraživačkog rada. Prevladavajući je stav sugovornika da su stečena znanja i vještine tijekom pripreme i pisanja istraživačkoga rada dublja od onih koje stječu kroz klasičnu nastavu, a u izvjesnom ih opsegu procjenjuju i trajnijima. Uz to, identificirano je kako geografsko istraživanje potiče razvoj metakognicije, odnosno svijesti o vlastitim misaonim procesima. Navedeno osobito vrijedi za skupinu učenika koji su u inicijalnom istraživanju pokazali najvišu razinu usvojenosti odgojno-obrazovnih ishoda (A):

Smatram da je ovo pravi način učenja (...). Temi koja se radi u geografskom istraživanju jednostavno se mora pokloniti dosta vremena, što automatski znači da će se u njenu problematiku dublje ući. (Učenica, A)
Mislim da je znanje bolje nego sa klasične nastave jer sami dolazimo do odgovora umjesto da naučimo nešto već zadano i uz to sami oblikujemo tekst istraživanja i uklapamo pronađene informacije te tako lakše zapamtimo. (Učenica, A)
Moramo zaključiti neke stvari pa moramo promišljati (...) što smo napravili i napisali. (Učenica, A)

U kontekstu dubine i trajnosti stečenoga znanja, valja spomenuti i skupinu učenika koji navode da su pisanjem istraživačkoga rada stekli šire znanje, ali istodobno izražavaju skepsu prema njegovoj trajnosti. Istovremeno, kod manjega je broja učenika prepoznata sumnja na obje razine, i na razini dubine i na razini trajnosti stečenih znanja:

Tema o Bollywoodu nije mi bila poznata pa sam dosta naučila dok sam izrađivala istraživanje, no većinu sam zaboravila od tada. (Učenica, A)

I ovaj se aspekt učeničke percepcije geografskoga istraživanja može povezati s kulturnim nasljeđem hrvatskoga obrazovnog sustava. Naime, kod učenika koji su primijetili manje ili nikakve pomake u vlastitom znanju stečenom pisanjem istraživačkoga rada u odnosu na znanje stečeno na klasičnoj nastavi, prepoznaje se viša razina komfora u već poznatim obrazovnim situacijama. Osobito to vrijedi u okolnostima kad učenici u obzir uzimaju uloženi rad i vrijeme s potencijalnom osobnom koristi, a prepoznato je čak i u skupini najuspješnijih učenika (A):

Meni je draža klasična nastava, samo što bi se i to trebalo malo promijeniti... (Učenik, C)
Ono što bih još htjela napomenuti je da je, konkretno, nastavnikova nastava vrlo zanimljiva... Smatram da sam na nastavi više naučila nego zadnjim geografskim istraživanjem. (Učenica, A)
Mislim da je znanje podjednako dobro jer kroz istraživanje možemo dosta dobro naučiti o čemu istražujemo, ali klasična nastava je malo bolja jer za isto ne oduzima toliko vremena. (Učenik, B)

Rasprava i zaključak

Velik ulaganje vremena na obavljanje zadatka (osobito u kontekstu završnih razreda gimnazije, velikog broja školskih obaveza te priprema za polaganje ispita Državne mature)

ističe se kao najistaknutiji element učeničke percepcije geografskoga istraživanja, ali i najznačajniji čimbenik koji negativno utječe na percepciju procesa izrade istraživačkoga rada te na razinu učeničke motivacije za njegovu pripremu i pisanje. Ovakvi nalazi u skladu su s prethodnim istraživanjima u kojima je ulaganje vremena također prepoznat kao jedan od najvažnijih čimbenika negativne učeničke percepcije pripreme i pisanja istraživačkoga rada (Osman, 2016). Uzevši u obzir kako je istraživanje provedeno nakon svega dvije godine kontinuirane primjene ove nastavne prakse te činjenicu kako se učenici prvi put u svojem formalnom obrazovanju susreću s novim procedurama i pravilima, problem velikog utroška vremena moguće je i naglašeniji. Navedeno se, zajedno s još nekim čimbenicima, svakako može tumačiti i u okviru utjecaja kulturnoga nasljeđa hrvatskoga obrazovnog sustava koji s reformom kurikula dobrim dijelom mijenja osnovnu paradigmu pa je, zbog velikoga broja novih pristupa i procedura, očekivan i otpor, osobito u prvim godinama njegove primjene. Nedvojbeno se takvi utjecaji daju prepoznati u iskazima učenika koji su sudjelovali u istraživanju. Naime, učenička usporedba novih nastavnih pristupa i praksi s postojećim i već poznatim sustavom razmjerno je čest sadržaj njihovih iskaza o percepciji geografskoga istraživanja. Indikativno, učenici naglašavaju veću sklonost ustaljenim nastavnim rutinama budući da su na njih navikli, osobito kad razmatraju odnos utrošenoga (vremena i truda) i dobivenoga (sumativna ocjena). Stoga klasičnu nastavu uglavnom prepoznaju kao korisniju, što je zajedno sa svime prethodno navedenim u skladu rezultatima istraživanja u državama u kojima je istraživački rad predstavljao značajan odmak u odnosu na uhodane nastavne prakse (Alhojailan, 2021). S druge strane, samostalan odabir teme i primjena načela aktualizacije prepoznati su kao najsnažniji čimbenici rasta učeničke motivacije za pisanjem istraživačkoga rada. U tom se smislu prepoznaje važnost individualnoga pristupa te prepoznavanja pojedinačnih interesa učenika u okviru nastave geografije, koja zahvaljujući svojoj interdisciplinarnoj prirodi, bolje od svih drugih nastavnih predmeta može prepoznati i podržati različite učeničke interese. U tom smislu treba tumačiti iskaze učenika koji govore o progresivnoj prirodi njihove motivacije, tj. o rastu motivacije paralelno s napredovanjem procesa istraživanja i pisanja istraživačkoga rada. Učenička motivacija svakako je povezana i s njihovom percepcijom samoga procesa izrade istraživačkoga rada. Sukladno dobivenim rezultatima, ali i nalazima iz prethodnih istraživanja, učenici istraživački rad najčešće vide kao vremenski izrazito zahtjevnu (Osman, 2016) i značajno normiranu aktivnost (Yeh, 2009; Alhojailan, 2021) u kojoj se osjećaju vrlo neiskusno i nepripremljeno (Vereijken i sur., 2018), osobito u sferi samostalne analize dostupnih izvora i literature te prikupljanja, obrade i prikazivanja podataka (Ivić i sur., 2021).

Unatoč nalazima nešto niže razine motivacije i prevladavajuće negativne percepcije procesa izrade istraživačkoga rada, učenici gotovo bez iznimke prepoznaju vrijednost ove nastavne prakse. U kontekstu buduće izrade istraživačkih radova u nastavi geografije, važno je istaknuti da su potvrđene već ranije utvrđene spoznaje o ključnom utjecaju kontinuiranoga pisanja istraživačkih radova na uvjerenja učenika o relevantnosti

istraživačkih praksi uopće (Vereijken i sur., 2020). Učenička percepcija relevantnosti geografskoga istraživanja te povezivanje procesa istraživanja sa stjecanjem znanja i vještina, čine iznimno važne spoznaje budući da profesionalna ponašanja pojedinaca u mnogome ovise o njihovim stavovima, a uvjerenja se obično teško mijenjaju (Šimić Šašić i sur., 2018). Zbog toga prevladavajuća pozitivna percepcija smisla i korisnosti geografskoga istraživanja među učenicima može i treba poslužiti kao osnova za budući razvoj istraživačkoga rada i, uopće, istraživačkoga pristupa u nastavi geografije. Među najznačajnijim pozitivnim iskazima učenika vezanim uz smislenost istraživačkoga rada treba izdvojiti stav o korisnosti ove prakse za nastavak njihova obrazovanja, osobito u sferi pisanja seminarskih, ocjenskih i drugih akademskih radova. Nadalje, učenici prepoznaju i vrijednost razvoja specifičnih geografskih, kao i generičkih vještina poput izrade i analize dijagrama, uređivanja teksta i sl. Pozitivnoj percepciji i odnosu prema istraživačkom radu, kao i u rezultatima drugih autora (Vereijken i sur., 2020; Imafuku i sur., 2015), u određenoj mjeri pridonosi činjenica da učenici znanje stečeno pisanjem geografskoga istraživanja percipiraju dubljim i trajnijim.

Bez obzira na objektivne poteškoće koje su prirodan slijed inicijalnoga upoznavanja s novom (nastavnom) praksom i pristupom, učenička odreda pozitivna percepcija svrsishodnosti i smisla geografskoga istraživanja predstavlja čvrst temelj razvoja i primjene ove prakse u nastavi geografije, ali i u cijelom odgojno-obrazovnom sustavu Republike Hrvatske. Značajno negativna percepcija učenika prema procesu izrade istraživačkoga rada i razmjerno niska razina motivacije očekivana su reakcija, naročito uzimajući u obzir manjak iskustva kao posljedicu kulturnoga nasljeđa našega obrazovnog sustava. Unatoč činjenici da je negativan stav moguće povezan s ustaljenim navikama i kulturnim nasljeđem, izdvojene probleme trebalo bi prepoznati u konstruktivnom smislu te ih koristiti kao putokaz za daljnje unaprjeđenje ove nastavne prakse. S ciljem dobivanja potpune slike učeničkih percepcija, stavova i uvjerenja svakako bi bilo vrijedno ponovno ih ispitati među učenicima koji će se s pisanjem istraživačkoga rada susresti ranije, tj. s početkom formalnoga geografskog obrazovanja u 5. razredu te istraživanje ponavljati nakon svakog obrazovnog ciklusa.