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THE POSSIBILITIES OF USING MOBILE TECHNOLOGY FOR THE ORTHOGRAPHY TEACHING - SELECTED REVIEW

ABSTRACT

The subject of interest in this paper is the use of mobile technology in the teaching of orthography. In this paper, we introduce a methodical application that presupposes the use of the Global Positioning System (GPS) for the renewal and expansion of the knowledge of writing capital letters in the names of streets and squares. In its particularities, this exercise can be counted in observation exercises. Theoretical and methodological review, as well as implemented examples, can serve as a powerful impetus for further research and new professional and methodical work with the focus on the application of mobile technologies in (out) teaching work with high school students, both in our and neighboring countries.

KEYWORDS: *mobile technology, orthography, teaching practice.*

1. INTRODUCTION

In today's teaching, there is a gap between teachers XX and XXI century students. It's just the XXI century of the fastest changes in the world of human technology, and most of the teachers are difficult to track all the trends that are emerging on the market of information and communication and mobile technologies on a daily basis. In secondary school (and earlier), teachers have digital natives in front of them, as the author of electronic learning, Mark Prensky, describes today's students (Prensky, 2001). Their teachers are only digital novices. However, numerous studies (Swan et al., 2005: 106, Luckin et al., 2005: 15, according to Kojčić, 2012: 103) show that ICTs help students, inter alia, in motivation for teaching content and in interaction with teachers and other students. And those positive foreign technologies should be used in teaching. Developing their own competencies, teachers should design and implement in practice methodical models and applications that follow modern trends, that is, to consider the possibilities of using various electronic tools to achieve them with the highest educational goals and thus to make students use the time they otherwise spend on the Internet to use and for studying. One of the goals of teaching literacy (and orthography) is to offer students a practice that will

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simultaneously develop and nurture primary, secondary (functional), but also tertiary literacy. In this way, students will be able to easily solve problems with independent life (at faculties or the labor market) in the near future.

In the digital era, in addition to the development of computers and their capabilities, we witness the expansion of various types of mobile devices. Mobile devices are considered to be all portable devices that are one-handed, and usually have a touch screen, a smaller keyboard, and use Windows or Android and android operating systems (Kojčić, 2012: 102). In mobile devices, we can count mobile phones, tablets and other portable devices. Article 45 of the Law on the Foundations of the System of Education, promulgated in 2003 in the Republic of Serbia, prohibits the use of mobile phones, vocals and other means of communication that interfere with teaching. However, outside the classroom, students use these devices to talk, write text messages, record or watch pictures and video clips, listen to music, play games, browse the content on the Internet or create them on their own. These are the activities in which they participate in their free time, obviously seeing it and finding a certain interest and meaning. And this is the interest of students (almost every student in a high school owns and uses a mobile phone) to be used to learn to learn new or learn new material and learn interesting things.

Z. Kojcic sets out nine different tasks that high school students are accustomed to conceptualizing certain content (that is, to put complex thoughts into one simple, clear word, thought, term or idea) (Kojčić, 2012: 101–109). The author suggests that among the students at their mother tongue, among other things, it is required: 1. to listen to the favorite song on the mobile device and to determine its basic concept, theme and idea of the song; 2. to write a song that fits into one SMS message (140 or 160 characters) or a story in five messages; 3. to write one basic concept for the song and the story they have composed; 4. to take pictures of that most closely resembles the selected concept in the phone (Kojčić, 2012: 104–106). In the opinion of this author, the consequences of such activities are: (a) developing creative and critical thinking, (b) analytical approach to one's own work, (c) developed ability to make the right choice. Similarly, concepts make it easier for the student's thinking to be simplified, so that other students and teachers can understand it more clearly (Kojčić, 2012: 107).

Mobile devices are improving every day by expanding their range of possibilities. Today, most of these phones have a built-in global positioning system, the so-called Global Positioning System (GPS), which provides precise information on the time and position of the users via satellite. Based on these data it is possible to determine the position on the map, the exact position of anyone who has a GPS device turned on, as well as its speed and direction of movement. Today, the GPS device is necessary in all modes of transport, and it is applied recently in the teaching of certain natural objects in our country.

A new model of teaching in geography teaching that involves the use of GPS receivers, which has not been applied in our country so far, was promoted at Kalemegdan as part of a geographic workshop with pupils from elementary school "Skadarlija". The author of the model is Dejan Bozovic, and the research is an integral part of the master's work entitled "Praktična primena GPS tehnologije u nastavi geografije (van učionice)" / "Practical application of GPS technology in the teaching of geography (outside the classroom)" at the Faculty of Geography in Belgrade. The GPS receiver was used as part of the geocaching tool, the world's

most popular game of finding hidden treasures, which the author used to find the dots in Kalemegdan Park. The game consists of hiding "treasures" by the GPS operator and publishing on the Internet the exact coordinates of the place where this "hidden treasure" is located. Then other GPS users go to "treasure hunt" and try to find it (the found goods are published on the site: http://www.geocaching.com). This imagined time brought to the students the "joy of the seeker", Kalemegdan was well acquainted and adopted the planned material. In addition to modern technology, students also used maps, compasses, lanterns, corners', pens, binoculars, developing and handling skills with these teaching tools. In the words, the application of GPS in the teaching of geography gave good results and here served as a motivation for using the same system in the teaching of Serbian Language and Literature in Secondary Schools.

Using mobile technologies to practice the proper use of capital letters

The first spelling topic that is processed in school is the use of capital letters. While lower case letters are the basic type of letter, the capital letters serve to emphasize something in the text. By the end of the first cycle of education in the Republic of Serbia, students should be able to functionally apply the capital letter at the beginning of the sentence, in writing personal names, surnames and nicknames, in animal names, in multi-member geographic names, writing addresses, writing names of people, holidays, book titles, magazines and the newspaper, in writing the names of the streets, the names of the states, provinces, settlements and their inhabitants, in the writing of adjectives derived from their own names, and that they use a large letter in the administrative speech. Therefore, by the end of the fourth grade, students should adopt all basic rules of capitalization.

In the older grades of the elementary school, the acquired knowledge is checked, repeated and practiced, expanding with new content. Thus, in the fifth grade, the writing of the names of various organizations and their bodies (organs) is processed, and the writing of pronouns in the address: you; in the sixth – writing the name of the cosmic bodies (single-member and multi-member). At the end of the primary school, systematic grammar of the use of capital letters is systematized according to the plan in the program. After that, according to the secondary school program, spelling material on the use of capital letters is repeated and extended in the first grade of high school.

In the research of the orthographic norms in the written tasks of high school students (Đorđev, 2016: 43–54), it was found that high school students showed much better knowledge on tests when they were directly required to use a big letter (Брборић, 2004: 114, 223) than when knowledge about the use of capital letters should apply in their written tasks. "In written assignments that we have reviewed the most frequent mistakes were in orthographic area of punctuation [...]: we recorded 4,487 errors of this type, which is more than half the total number of orthographic mistakes that we found in the corpus of research (53.93%). Mistakes that are related to writing a whole and split words (11.02%) are at the second place, the third mistake is in the use of the capital letter (9.34%)" (Đorđev, 2016:

43). These mistakes are the result of the influence of foreign languages in Serbian, the habits that pupils acquired in electronic communication, the neglect of the teaching of orthography, in the early grades of secondary school, the lack of connection between: literature, but also insufficient ability of pupils to apply orthographic rules on a variety of examples when they write their written assignments. These results are a fairly reliable indicator of the need for additional effort in teaching practice in order to improve the functional literacy of our students.

In terms of spelling, we believe that in this sense it is possible to use the advantages of the modern world, that is, the GPS device can be used for the renewal and expansion of knowledge of capital letters in the names of streets and squares, of course, provided that the teacher and pupils have this system on mobile phones and to be familiar with the rules of its use. According to its features, this exercise can be counted in observation exercises (Николић, 1992: 661–666).

In the introductory part of the lesson, the teacher tells the students that they will begin a "spell-check" walk using GPS devices as navigators and "trainers" to practice one orthography theme. As a motivation for the work, the actual news that the pupils of elementary school "Skadarlija" in Belgrade, using GPS, found "hidden treasures" on Kalemegdan (http://www.blic.rs/, published on: November 14, 2012). Learning students' interest, the teacher suggests that, guided by voice instructions for moving from a GPS device, they reach the theater from the school, where they are waiting for "hidden treasure". During the journey, the names of the streets and squares through which they pass must be recorded. Upon completion of this designed time, students of their notes from the road give the teacher a chance to check their spelling correctness together. This was how one "orthography walk" of Vrsac Gymnasium students, conducted in April 2013, was held. At the beginning of the journey, the students had the task of determining the starting position on the GPS device. The address of the school (Gymnasium "Borislav Petrov Braca") from which they started this time outside the classroom is Mihajla Pupina 1, Vrsac. In order to give the GPS device the necessary directions for moving, the goal of movement should also be determined. The National Theater "Sterija" is located on Svetosavski trg number 6. After entering the data, the GPS device quickly gave instructions for the shortest possible route to the destination. In the continuation of the paper an excerpt from the note of a student who took part in such a designed exercise is attached.

> *The orthography walk begins at the crossroads of three streets: Abrasevic's, the Street Nikita Tolstoj and the street of Mihajlo Pupin, from where we continue the Vuk Karadzic Street. We are on the pedestrian crossings at the crossroads of this street with Hero Pinky Street and Sterija Street. We are quickly crossing the large intersection with Boulevard Zarko Zrenjanin, and the voice from GPS warns us that we are one hundred meters away from the target and that we have to move right. We come to the Svetosavski square (formerly the Russian park) and the National Theater Sterija. In the theater hall, the hidden treasure is waiting for us – instruction for continuing movement. We find out that the treasure is in the National Museum, at Feliks Mileker Street 19.*

Quickly confirming the current position and finding out from our "GPS Friends" detailed information about the distance and the time needed to reach the destination, we continue our spell-out walking through the Svetosavski Square towards the Palace, from where our voice from the device continues to lead Dositejeva to the Victory Square. After crossing the square, we arrive at Felix Mileker Street. We cross the National Museum crossroads with the streets of Djura Jaksic, Sterijin and Iva Milutinovic.

After visiting the National Museum, where we were awaiting an interesting archaeological item, we have to return to school for the next time. Let's enter the new goal: Mihailo Pupin Street 1. Let's go Felix Mileker's Street, and the voice from the GPS device warns us of crossroads with other streets. We still turn to Hero Pinky Street; The GPS device recovers data, sends us to Abrasevic, from where the school building is already visible, as well as the Youth Square behind it.

Student in class I5

The teacher is tasked with reports with orthography walks exams along with students and correct any student errors. On that occasion, students can point out possible changes and amendments to orthographic rules.

In the continuation of the work, students compare their records with the names of streets, boulevards and squares, which can be read on the GPS map. Students notice that in all the names of the streets through which they walked during a spell-proof walk, the word of the street is missing. So stands Abrasevic, Nikita Tolstoy, Sterijina... This points to the drainage of the word of the streets in these appointments (the word of the street is not written on the maps because of the limitations in the space). Then in the first word of its own name in a new form is written in a large initial letter, as it is correctly written on the map. Also, they find one error in writing the market name on the GPS map. The *Omladinski Trg is twice written on the map, while the students, in spite of the orthography, wrote the square with a small initial letter.

3. FINAL CONSIDERATIONS

Such orthography walks allow pupils and critically refer to public inscriptions (records of erroneous inscriptions in the area of the Vrsac municipality see: Келемен, 2010: 499–510) that meet in everyday life. The pupil "can learn actively if they walk one day in the city and record mistakes in inscriptions on institutions, businesses, shops, department stores, street names, and squares, inscriptions on bus and train stations" (Брчкало, 2010: 407). Students expose their observations from orthography walks in time, compare experiences, classify and define orthography solutions. In doing so, it is important to instruct students to regularly consult the orthography, following his changes. Teacher's instructions in this regard could have the following form: Note (take pictures) of some examples of capital letters in the names of cultural organizations and institutions in your city, in the signs of trade objects, on billboards. Think about their orthography correctness. Classify the names according to the way they use capital letters in them. He presents the results of his work to the department.

These tasks, including the use of a mobile device, can be carried out in every place, and students can independently train their homes (or during a trip) using their GPS devices. Also, since this is an imagined time different from the usual work, and it involves the use of devices with which, in the era of technical and technological development, students meet regularly, high motivation for work and a pleasant atmosphere is achieved, as a prerequisite for the teaching of orthography is not perceived as a BEWITCHED LABYRINTH, but as a CLEAR PATH, like the one that is managed by the global positioning system. Teachers have a task to show students how to reach the goal fastest, easiest and safest, no matter how large the cities they are moving.

Teachers had another serious and responsible task ahead of them: they should persist in correcting bad habits in using of capital letter. When encountered in written assignments, these orthographic mistakes should be pointed out to, and also insist on exercises in teaching practice until proper application is not a habit. This means that we should modernize and enrich textbooks, orthographic and methodical literature; particular attention should be paid to the creation of interesting, valuable motivational teaching models aimed at correcting the frequency of mistakes. In addition to the theoretical benefits, the results of ongoing research should be taken into account as well as the empirical material on the way of improving the quality of teaching approaches; focus on the analysis and classification of mistakes, as well as to discover the causes of their appearance and long-term presence.

This work has not exhausted the broad theme of orthography in teaching practice, but we believe it can serve as a guideline to more modern spelling and as a powerful impetus for further research that could, inter alia, address the following questions: What are the preferred competencies of teachers for modern orthography teaching? What is the way to motivate teachers and support them in permanent and quality improvement in the domain of orthography? How to use the possibilities of information-communication and mobile technologies and modern times for this purpose?

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