

A Match or Mismatch between Teaching and Learning Styles in Teaching English as a Foreign Language at the Primary School Level

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J. J. Strossmayer University of Osijek

Faculty of Humanities and Social Sciences

Study Programme: Double Major MA Study Programme in English language and
Literature – Teaching English as a Foreign Language and Pedagogy

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at the Primary School Level**

Master's Thesis

Supervisor: Dr. Draženka Molnar, Assistant Professor

Osijek, 2018

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Summary

Language learning styles are the ways learners like to perceive and process new information, while teaching styles refer to the ways teachers like to organize and present that information to the students. There is a variety of teaching and learning styles, which resulted in a number of theories and classifications of the two. Many researchers have established that teaching and learning styles have an influence on the way teachers and learners behave in the classroom. This paper aims to explore the most common learning and teaching styles at the primary school level, and a possible match or mismatch between them. The results of the research showed that the preferred learning and teaching styles were both visual. Therefore, there was a match between the dominant learning and teaching styles.

Key words: learning styles, teaching styles, match, mismatch

Sažetak

Stilovi su učenja načini na koje učenici preferiraju opažati i obrađivati nove informacije dok su stilovi poučavanja načini na koje učitelji preferiraju organizirati i prezentirati te informacije učenicima. Raznovrsnost stilova učenja i poučavanja dovodi do kreiranja različitih teorija i klasifikacija istoimenih pojmova. Mnoga su istraživanja pokazala da stilovi učenja i stilovi poučavanja utječu na ponašanje učenika i učitelja u razrednom okruženju. Cilj je ovoga istraživanja ustanoviti koji su najčešći stilovi učenja i poučavanja na osnovnoškolskoj razini, te postoji li usklađenost ili neusklađenost između stilova učenja i stilova poučavanja. Rezultati istraživanja pokazali su kako je najčešći stil učenja i poučavanja vizualni te da postoji usklađenost između dominantnih stilova poučavanja i stilova učenja.

Ključne riječi: stilovi učenja, stilovi poučavanja, usklađenost, neusklađenost

1. Introduction

Many researchers have established that learners have their individual differences and various approaches to language learning. Some of those individual differences refer to age, gender, motivation, personality, language learning strategies and language learning styles (Dörnyei, 2005). The aim of this paper is to explore one of those individual differences that can affect the learning process, namely the difference in language learning styles. The concept of learning styles in education has gained more attention over the years and the research on learning styles has expanded in the past two decades (Hussain and Ayub, 2012). Reid (1998), who is recognized as one of the most important researches on the topic of learning styles, describes them as internally based characteristics, often not consciously used by learners, for the intake of new information. Learning styles can affect the students' behavior and the way they interact with the learning environment and because of that, students should be aware of their preferred style of learning. When learners develop the understanding of their own form of learning, they become more satisfied with the environment they interact with and acquire an increasing amount of information without the assistance of others (Singh, Govil and Rani, 2015).

Just like learners, the teachers are also becoming more diverse in their approaches to language teaching. These different approaches and ways of structuring a lecture are referred to as teaching styles. Palos and Maricutoiu (2006) define teaching styles as ways teachers organize their lessons and use different teaching methods in the classroom. The style of teaching cannot only affect the way teachers present information to the students, but also the way teachers solve cognitive conflicts and approach problems. Teaching and learning styles are closely connected and can have an impact on the learning process in the classroom. Since there is a variety of learning and teaching styles, there are instances where a match or a mismatch between the two could occur. When it comes to the match or a mismatch between the teaching and learning styles, there is a difference in opinion among researchers. Some researchers (Peacock, 2001; Renzulli and Smith, 1984; Wallace and Oxford, 1992) claim that a match in teaching and learning styles is necessary for learners to achieve their goals in language learning. Contrary to that, there are some researchers (Felder, 1995; Joyce et al. 2015) who believe that a mismatch between teaching and learning styles will help the learners deal with the unknown situation and extend their learning styles. Whether there is a match or a mismatch between teaching and learning styles, both teachers and students should be aware of their preferred ways of teaching and learning. Moreover, teachers should be aware of their students' learning styles in order to organize classes that would accommodate a variety of students and make learning more enjoyable for a large number of students.

The first part of this paper gives a theoretical background of the learning and teaching styles and their classifications. Furthermore, the relationship between teaching and learning styles is presented in this part of the paper.

The second part of the paper gives a review of other relevant studies and research that focused on the learning and teaching styles, their relationship and mutual influence.

The third part reports on the results of the research conducted in order to explore the most common learning and teaching styles and the possible match or mismatch between the two.

2. Learning styles

The concept of learning styles in education and education research has flourished in the past two decades, and has led to the realization that all students are unique individuals who have different preferences and different styles of learning. This interest in the individual differences among students has generated multiple definitions of learning styles. Smith and Dalton (2005) state that learning styles are a distinctive and habitual manner of acquiring knowledge, skills or attitudes through study or experience. According to Reid (1998), learning styles are internally based characteristics, often not perceived or consciously used by learners, for the intake and comprehension of new information. Dörnyei (2005) defined learning styles as a profile of the individual's approach to learning, a blueprint of the habitual or preferred way the individual perceives, interacts with and responds to his/hers learning environment. From these definitions, it can be concluded that students vary in the way they process information, which is supported by Sarasin (1999), who claims that learning styles are certain specific patterns of behavior and performance, according to which the individual takes in new information and develops new skills.

Learning styles, as presented in these definitions, can be closely linked to an individual's behavior pattern. In line with the same concept, Gregorc states that "learning style consists of distinctive behaviors which serve as indicators of how a person learns and adapts to the environment" (Gregorc, 1979: 234). On the other hand, some researches claim that learning styles are not behavioral patterns per se, but that the individual's behavior is influenced by the learning style. According to that presumption, learning styles can be described as individual preferences that have an effect on the way individuals learn, solve problems, react in groups and communicate with others (Bayrak and Altun, 2009). In addition to that, Grasha (1994) claims that learning styles can be defined as personal characteristics that can influence not only the learner's behavior, but also their ability to acquire information, interact with peers and teachers, and participate in different types of learning activities. Similar to the definitions of learning styles, researches have varying opinions about the stability of learning styles. One such opinion implies that learning styles are relatively stable and do not drastically change when the learner interacts with the learning environment (Keefe, 1988). In addition to that, Ehrman and Oxford (1990) suggest that learning styles are an internally based set of characteristics that are retained despite the learning environment. However, Ehrman and Oxford (1990) also added that new styles can be acquired over time and the already established learning styles can be adapted. Taking this into consideration, it can be concluded that learning styles may be influenced by the environment and different situations learners are faced with during their schooling process. In support of the findings,

Kinsella and Sherak (1998) point out that learning styles can be influenced by the classroom roles and values and that learners tend to prefer the learning styles they are most often exposed to. Grasha (1994) also suggested that learning styles are unstable and can be modified according to the learning situation or the environment.

Despite the fact that different researches have different theories about the stability of learning styles, they share some similar views about the evolution of learning styles. The similarity is that learning styles can be static and stable for a period of time, but they can also be altered by external factors, i.e. different educational environments. Oxford (1990) in her definition of learning styles, encompasses most of the presented opinions about learning styles and their influence on learner's behavior, by stating that they are related to four aspects of the person:

- 1) cognitive style, which is a habitual or preferred pattern of an individual's mental functioning,
- 2) attitudes and interests that affect what an individual will pay most attention to,
- 3) a habit of seeking situations that are compatible with one's learning pattern,
- 4) a habit of using certain learning styles and avoiding others.

Since learning styles have been recognized as an important aspect of the student's educational journey, many researchers have tried to label and categorize different types of learning styles. As a result, there are multiple models and theories about the types of learning styles, which are presented below.

2.1. Learning style models

1) Jung's Model of Typology

Carl Jung's theory of psychological type is used for explaining individual differences and the development of many learning styles models (Wong, 2015). Jung's model is mostly concerned with the way in which the individual habitually orients oneself in the world. From this, he distinguishes several typological groups: two personality attitudes (introversion and extraversion), and four functions or modes of orientation (thinking, sensation, intuition and feeling) (Sharp, 1987). Introversion is characterized by a hesitant nature that would influence an individual to keep to himself/herself. Extraversion is characterized by an outgoing nature that influences an individual to adapt easily to a given situation. When it comes to the four modes of orientation, Jung describes them as follows:

- 1) thinking - process of cognitive thought,
- 2) sensation - perception by means of the physical sense organs,
- 3) feeling - function of subjective judgment or valuation,
- 4) intuition - perception by way of the unconscious (Sharp, 1987).

This theory states that people prefer one of the four functions over the others and that the most preferred type can be considered as a learner's dominant mental function (Wong, 2015).

Jung's theory, although it does not mention learning styles, shows that individuals have different preferences when it comes to the way they like to learn. This theory can present a basis for other theories about different learning style preferences since it points out that individuals have different needs and inclinations according to their personality traits.

2) Curry's Onion Model

Curry proposed a theory of learning behavior and styles by using an onion as a metaphor to illustrate the different levels of her theoretical framework. According to this model, the outer layer is called *instructional preference*. This layer refers to the learners' preference of the learning environment and learning techniques. In her theory, it is described as the most unstable layer since it is directly related to learning environments, which can easily be changed. The second layer is called *social interaction* and it refers to the learners' preferred way of interacting with the teacher or his/hers peers. According to the type of social interaction, learners can be categorized as independent or dependent, collaborative or competitive, and participant or avoidant. The third

layer is referred to as *information processing*. This layer is connected to the learners' preferred way of information processing and it describes the way a learner likes to take in new information. The last layer is called *cognitive personality style*. It refers to the learners' way of adapting and assimilating information and is related to the learners' personality type (Riding and Cheema, 1991; Wong, 2015). This model can also be used to determine the learner's preferred way of learning by observing their behavior and their ability to adapt to the educational environment.

3) Kolb's Experiential Learning Cycle and the Learning Style Inventory

David Kolb developed his learning styles theory which is divided into two parts or levels: a cycle with four stages and four different learning styles. The theory mostly concentrates on the learner's cognitive processes and views learning as the process whereby knowledge is created through the transformation of experience (Kolb, 1984). Kolb's cycle of learning is divided into four stages that learners go through while learning new information:

- 1) concrete experience - the learner encounters new experience or reinterprets existing experience,
- 2) reflective observation - the learner reflects on the new experience or reviews the experience,
- 3) abstract conceptualization - the learner concludes or learns from the experience or modifies an existing abstract concept,
- 4) active experimentation - the learners apply the knowledge to the world around them (McLeod, 2010).

According to this model, the learner will, over time, show a preference for a certain stage in the cycle and that will then help determine their learning style. Kolb (2000) states that learning styles are a stable preference for learning, which can slightly change from situation to situation. According to the four stage cycle, Kolb developed four different learning styles.

The first learning style is diverging. Learners who prefer this learning style are mostly sensitive and tend to use imagination to solve problems. Also, they have broad cultural interests and like to gather information. Learners with the diverging style prefer to work in groups and to receive personal feedback. The second learning style is assimilating. Learners who prefer this learning style excel at organizing information, logical thinking and understanding a wide range of information. Furthermore, learners with the assimilating learning style prefer to read, explore analytical models and are more interested in logical theories rather than abstract ideas (Kolb and Kolb, 2005). The next learning style developed by Kolb is called the converging style. Learners

with this style of learning prefer technical tasks and finding solutions to problems or questions. These types of learners also like to experiment with new ideas and work on practical tasks. The last learning style is referred to as accommodating. The learners with this learning style mostly rely on intuition and prefer to take the experimental approach. They like to rely on instinct rather than logical analysis and sometimes rely on others for information in order to carry out their own analysis (Kolb and Kolb, 2005). This type of categorization of learning styles can help learners understand their own preferred style of learning which could help them in seeking the situations they perform best in. In addition to that, this model can also help teachers with accommodating their lessons to their students' preferred way of learning.

4) Fleming's VARK theory

The VARK learning style model has been developed by Fleming in 2006 and is used to determine learners' preferences when it comes to learning and communicating. In this acronym, V stands for visual, A means aural, R refers to read/write, and K means kinesthetic (Othman, Amiruddin, 2010). Based on these categorizations, different learning styles and preferences can be detected in different students. Fleming described the behavior patterns, communicational and learning preferences of individuals who fall into these categories. Students who prefer the visual mode like to learn through interpreting charts, pictures or graphs. Also, these learners are more comfortable with explaining a concept by drawing a picture or a figure. Students who prefer the aural mode tend to retain information by listening or discussion. These students usually focus on the words delivered by the teachers and like to discuss the new topic rather than writing about it. Students who opt for the kinesthetic mode lean more towards learning through their senses. These students mostly like to learn through experience and practice. For the final mode, students who prefer to read or write, have the ability to interpret printed information quickly, they like to learn by using textbooks, lecture notes or lists. This theory can be very helpful to teachers since it can be used to produce teaching materials and new activities based on students' preferences. The VARK theory does not involve intelligence or skills but is related to how learners acquire new information or knowledge, which can be tested and implemented into the classroom in order to accommodate a larger number of learners (Othman and Amiruddin, 2010).

5) Reid's perceptual learning styles

Reid (1987) describes the perceptual learning styles as variations among learners in using one or multiple senses to organize, understand and retain new experience. These perceptual learning styles are categorized into visual, auditory, kinesthetic, tactile, group and individual. The

perceptual learning styles are described by pointing out some of the characteristics of each learning style, the behavior patterns and preferences of learners who fall into each category. Students who prefer the visual style like to learn through reading, taking notes, looking at pictures or drawing. Auditory learners are more efficient when they hear the information or when they read something out loud. Kinesthetic learners are more likely to learn through experience and experiments in the classroom. Students who prefer the tactile learning style are more effective when they are able to learn through a "hands-on experience" where they are able to touch the material or build something. When it comes to the group and individual learning styles, they differ according to the social situation students like to learn in. Students with the prominent group learning style like to learn with others and work well in groups. On the other hand, students with the individual learning style like to learn alone and work on projects individually (Wong, 2015). To measure the learning styles, Reid designed the Perceptual Learning Styles Questionnaire (PLSPQ) which consists of 30 statements (5 statements for each of the six styles). The questionnaire uses a five point scale where participants can decide to which degree a certain statement applies to them (Reid, 1987). This questionnaire can be very useful to teachers, especially at the beginning of the school year. The questionnaire is user friendly and simple and it can be of great help to teachers when it comes to understanding the learners' preferences and their styles of learning.

2.2. Perceptual learning styles

The learning style categorization that many language teachers and learners would be familiar with is the categorization of sensory preferences into visual, auditory, kinesthetic and tactile types. This theory of learning styles is mostly concerned with the learners' perception, evident by the name of the theory. As reported by Keefe (1988), perception is the process by which the brain systematically collects information where the perceptual response is both cognitive and affective. According to Dörnyei (2005), this dimension is focused on the perceptual modes or learning channels through which students take in information. The different sensory preferences do not necessarily exclude each other. Learners can have a preferred way of learning, but that does not stop them from using other perceptual learning styles. There are many reasons that highlight the importance of studying these perceptual modalities, and Tight (as cited in Alkhatnai, 2011) explained some of these reasons. One of the reasons is that these perceptual modalities represent a crucial part of the learning process. In addition to that, perceptual preferences may be more easily recognized in oneself than other learning style variables like sensitivity to light, classroom design

preference or whether a person thinks in words or pictures. Students differ in their perceptual preferences, and there are certain characteristics that describe the students who fall into the mentioned categories of perceptual learning styles.

2.2.1. Visual learning style

Visual learners tend to think in pictures and learn best by using visual images. They sometimes depend on the teacher's non-verbal cues, such as body language, in order to help them with understanding new information (Gilakjani, 2012). These learners tend to prefer reading tasks and often highlight certain information to make it visually more appealing to them. As Dörnyei (2005) points out, visual learners like visual stimulation such as films and videos, and if the information is presented orally, their understanding can be enhanced by a handout or other kinds of visual aids. According to research by Oxford and Anderson (1995), visual learners outnumber the other groups, since 50% to 80% of participants described themselves as predominantly visual.

2.2.2. Auditory learning style

Auditory learners learn most efficiently through auditory input. This auditory input includes lectures, discussions, audiotapes, reading out loud or listening to the teacher's explanation (Dörnyei, 2005). These types of learners also like to engage in discussions in order to further understand new information. Reid (1987) stated that around 90% of school teaching is directed towards auditory learners since it mostly includes discussions and lectures. This can present a problem for students who do not have that style preference since most of the lectures will not be in accordance to their learning preferences. In addition to that, Dunn, Dunn and Price (1975) reported that less than 12% of the students of American elementary schools were auditory learners. These findings can be very helpful to teachers and instructors in organizing their lessons in a way that would be suitable for most learners.

2.2.3. Kinesthetic learning style

According to Dörnyei (2005), kinesthetic learners prefer total physical involvement with the learning situation. These types of learners prefer classroom activities like role-play or acting where they can act out a situation instead of analyzing it or talking about it. Kinesthetic learners can have a difficult time staying focused, and sitting motionless for a long time can be challenging for them. They enjoy activities that include body movement or the complete body experience. Reid (1987)

reported that, in all the groups she studied in her research, kinesthetic modality was the most dominant perceptual style preference.

2.2.4. Tactile learning style

The tactile modality refers to learners who learn through touch. This perceptual learning style preference is sometimes mixed with the kinesthetic preference. Even though they are similar in the sense that learners with these preferences like to learn by being involved in different activities, they are not identical. The tactile modality does not refer to the whole body movement, but to the sense of touching which is connected with the hands-on experience (Alkhatnai, 2011). Furthermore, tactile learners enjoy activities where they are able to participate in making posters, collages, building models and other forms of artwork (Dörnyei, 2005). Dunn and Dunn (1979) suggested that at least 30-40% of students preferred the tactile/kinesthetic learning style. Even though Dunn and Dunn did not separate the tactile learning style from the kinesthetic learning style, their research still indicates that a large number of students prefer activities where they can be fully involved.

2.2.5. Individual and group learning styles

In addition to the four sensory preferences, Reid (1987) mentions two more learning style preferences: individual and group. The group modality is preferred by those learners who learn better in groups and who like to learn in the presence of others. The individual modality, in contrast, refers to those learners who learn better when working alone (Alkhatnai, 2011). As Reid (1998) described, students who prefer the group learning style are more successful when they are working with others and group work can help them understand new information better. Contrarily, students who prefer the individual learning style can focus and understand information better when they work alone and mostly enjoy individual work.

3. Teaching styles

Just like learners have their own preferred way of acquiring new information, which is referred to as learning styles, teachers also have their own styles of teaching. The term teaching styles refers to the instructor's or the teacher's classroom behavior associated with the teaching beliefs of an instructor and is not necessarily restricted to a single teaching method or technique (Cooper, 2001). Since teaching styles are closely linked to the individual's behavior, they can affect how teachers interact with students, how they present information, and how they organize their lessons. Peacock (2001) defines teaching styles as the instructor's natural, habitual and preferred way of presenting new information in the classroom. Norland and Heimlich (2002) define the term as teachers' teaching behaviors and beliefs. Furthermore, Palos and Maricutoiu (2006) explain teaching styles as the ways teachers organize and present the information to their students. Teaching styles can be associated with teachers' learning experiences, their beliefs and their cultural background. Those beliefs and experiences then influence the way teachers plan and organize their lessons and the way they present new information to students. In support of that, Cooper (2001) defines teaching styles as the sum of instructional activities, approaches and techniques that teachers use in the classroom.

Just like learning styles, teaching styles are not completely concrete, and can be modified with time and new experience. Reid (2005) argues that, although teachers have an overall style of teaching, they can modify their styles to create a more successful experience for the learners. Learners may adjust their learning styles in order to better their academic achievements, and teachers may modify their teaching styles in order to provide students with a positive learning experience. Teaching styles may be identified by observing the teachers' behavior in the classroom, the way they present information, plan their lessons and organize classroom activities. By observing the behavior of teachers, some categories and types of teaching styles can be formed. Grasha (1994) categorized teachers' behavior in five different teaching styles with descriptions of each style. The first teaching style is *the expert*. The main characteristic of this style is that teachers and instructors believe they possess all the knowledge that the students need. These teachers challenge students to enhance their knowledge and are concerned with transmitting information. The next teaching style is *the formal authority*. This is mainly a teacher-centered approach where teachers control the content and the students' role is to receive the content and assimilate. These types of teachers are not concerned with creating relationships with the students and do not perceive the relationships among students as important. The third teaching style is *a personal model or a demonstrator*. This is also a teacher-centered approach where the teacher demonstrates

what is expected from the students and then acts as a guide to help students in applying that knowledge. Opposite to the teacher-centered styles is *the facilitator*. This type of a teacher places the responsibility on the students to take initiative to achieve positive results. This is a student-centered approach where teachers design activities which promote active learning and collaboration. The last teaching style is *the delegator*. This is also a student centered approach where the responsibility for learning is placed on the students. These types of teachers promote active learning and usually have a consultative role (Grasha, 1994).

Teaching styles and the teachers' beliefs and values can largely influence the way teachers behave in the classroom and that, consequently, influences the way learners learn. Teachers should be aware of their teaching styles since it directly influences their students. It is not possible for teachers to adapt to every student's needs and learning styles, but teachers can make an effort to modify their teaching styles in a way that they would include different activities and teaching aids in order to cater to most students.

4. The relationship between teaching and learning styles

As MacBeath (1999) indicates, teachers and learners are constantly influenced by one another's expectations and behaviors. The way teachers act and organize their lessons will have an impact on the students. Similar to that, the way learners like to learn and process information will have an impact on how teachers act. Fisher et al. (1998) found that teachers who are supportive, sympathetic and lead without strictness cause an increase in cognitional and emotional success among students. On the other hand, teachers who are unreliable and overly strict lead to less cognitional and emotional success among students. According to Conner et al. (as cited in Alkhatnai, 2011) teachers need to become aware of the way they accommodate different learning styles in the classroom and try to offer a balance of classroom activities. However, it would be almost impossible for teachers to keep changing their teaching styles in order to accommodate all learners in their classroom. When it comes to dealing with the plethora of learning styles, Alkhatnai (2011) proposes three approaches that represent the three ways teachers could be dealing with different learning styles:

- 1) Matching - this approach is centered around the identification of the learner's individual learning styles and adapting the teaching styles in order to match the learner's preferences.
- 2) Mismatching - this approach proposes identifying the learner's learning style and then organizing the activities and giving instructions that would match the opposite preference of the learner. As Alkhatnai (2011) mentions, this approach would strengthen the weaker preferences of the students.
- 3) The last approach does not consider the identification of learning styles. Instead, it advocates the usage of different methods of instruction that can accommodate most of the learners' preferred ways of acquiring new information.

When it comes to matching or mismatching the teaching styles with the students' learning styles, researches have different opinions. Some researches argue that matching the teaching and learning styles can help students with their academic achievements. Griggs and Dunn (1984) determined that matching teaching styles to learning styles can enhance the academic achievement of students and influence their attitudes and behavior. Furthermore, Smith and Renzulli (1984) stated that students who are subjected to teaching styles that are inconsistent with their learning preferences can experience stress, frustration and lower academic achievement. Similar to that, Wallace and Oxford (1992) claim that mismatches between the learners' learning styles and the teaching style can hinder the process of learning and, ultimately, lead to negative attitudes towards language

learning. When there is a mismatch between the learning and teaching styles in the classroom, the students may become bored, do poorly on tests, get discouraged about the classes, and in extreme cases, change schools or leave school entirely (Felder and Spurlin, 2005). Contrary to that, some authors claim that a mismatch between learning and teaching styles can benefit the students and help them overcome their weaknesses (Rush and Moore, as cited in Alkhatnai, 2011). Another reason for a mismatch between learning and teaching styles is given by Felder (1995) who claims that constant matching between teaching and learning styles may reduce the opportunity for students to expand their learning styles. Intentional mismatching may allow the learners to develop different skills for dealing with situations that are not completely compatible with their preferences. Those skills may benefit them in the future, when they are no longer in the classroom, and the environment may not be in accordance with their learning styles. Joyce et al. (2015) state that if the environment is constantly matched to the development of learners, they might become contented with their current learning stages and that will limit their ability to form new conceptual systems. A third group of researchers are the ones arguing for a balanced way of dealing with a variety of learning styles. They support teaching in a way that would accommodate most learning styles. Oxford and Anderson (1995) argue that teachers should balance instructional methods and structure the class so that all learning styles are accommodated. In addition to that, Manner (2001) based the argument for this approach on the fact that there are many difficulties in designing individualized teaching and the fact that learning styles greatly influence students' behavior and cannot be easily changed. Because of that, teachers should use different methods and organize a variety of activities that would be suitable for different learners.

Since individual differences and learning styles can be overwhelming for some teachers, and their representation in every lesson can be challenging, Zhou (2011) described some methods and activities for teachers to use in order to accommodate different learning styles:

- 1) provide a balance of concrete information and abstract concepts,
- 2) use pictures and graphs during and after presentation of verbal material,
- 3) leave enough time for students to work on certain problems and questions,
- 4) talk to students about their learning styles and help them reshape their learning experience so they can be more successful,
- 5) try to design some activities that involve the students' senses in different ways,
- 6) motivate learning by teaching new material in the context which students can relate to.

Since teaching styles have an effect on how students learn, both teachers and students should be aware of their preferences. As Dunn (1990) points out, the teacher's awareness of the preferred learning styles of their students can help teachers cope with the students' learning difficulties. Similar to that, Reid (2005) states that understanding the preferred learning styles of students can help teachers in making learning more accessible for all students and help students become aware of their own learning processes. This awareness of the way students learn and cope with the learning environment could help teachers create an environment where they are able to construct lessons that would accommodate a variety of learning styles, and learners would be able to learn in a way that suits their needs.

5. Research on perceptual learning styles and teaching styles

Influenced by the complex topic of learning styles, some researchers conducted studies that concentrated on the students' preferences of perceptual learning styles. Researches tried to determine which senses students use the most while learning and, as a result, what is their dominant perceptual learning style.

Singh, Govil and Rani (2015) conducted a study on 300 secondary school students of Aligarh District. The researchers used a standardized Learning Style Inventory developed by Jaffery Barsch, which is a three point scale that consists of 32 statements. They classified the inventory into four categories: visual, auditory, tactile and kinesthetic. Their findings revealed that most of the students in their sample preferred the visual learning style (45.7%), followed by auditory (21%), tactile (18.3%) and kinesthetic (15%). In addition to that, the study revealed that there was no significant impact of gender, place of living, religion and educational background of the father on the learning style preferences. However, there was a significant impact of the mother's educational level on the learning style preferences of these students. The findings of this study provided necessary information that could help teachers construct a curriculum and plan lessons according to their students' learning styles.

Joy M. Reid (1987) conducted a study focusing on the perceptual learning style preferences of native and non-native English speakers. For the purpose of this study, Reid developed a self-reporting questionnaire which consisted of 30 statements. In the questionnaire, there were 5 statements for each of the six learning style preferences: visual, auditory, kinesthetic, tactile, group learning and individual learning. The findings of this research indicated that students strongly preferred kinesthetic and tactile learning styles. Also, most groups showed a negative preference for group learning styles. In her research, Reid concluded that native and non-native English speakers differ in their preferences when it comes to perceptual learning styles. In addition to that, non-native English speakers from different language backgrounds sometimes differed from each other in their learning style preferences. In her research, Reid designed a questionnaire (PLSPQ) that would later be used by many researches in their studies about perceptual learning styles.

Mulalic, Ahmad, and Shah (2009) aimed to determine the perceptual learning styles of students at the Department of Language and Communication, University Tenaga Nasional. For the purpose of their research, they used the PLSPQ in order to analyze the differences in perceptual learning styles. Mulalic et al. conducted the study on 160 students and found that students preferred the kinesthetic learning style, while their minor learning style preferences were visual, auditory, and

group learning. The students expressed negative preferences towards individual and tactile learning styles. This research led to the conclusion that: "it is important to determine students' learning styles and make students aware of the different approaches to learning" (Mulalic, Ahmad, Shah, 2009: 14).

Matthew Peacock (2001) carried out a research using the Reid's PLSPQ in order to investigate the learning styles used by students, the teaching styles of their teachers, and the match or mismatch between them. The subjects of this study were 206 EFL students and 46 EFL teachers in the Department of English at the City University of Hong Kong. As mentioned, the data on learning styles were collected using the Reid's Perceptual Learning Style Preference Questionnaire. Additionally, the data on teaching styles were collected using a modified version of the PLSPQ. The results of the research showed that the most popular learning styles were kinesthetic and auditory, while the least popular learning styles were individual and group. When it comes to teaching styles, most teachers favored the kinesthetic and group styles and strongly disfavored the tactile and individual styles. From the data provided in the research, it can be seen that there was a match in the kinesthetic learning and teaching styles. When it comes to matching or mismatching of teaching and learning styles, 72% of students claimed that they felt frustrated and unhappy when their teacher's styles differed from their learning styles. Some of the students declared that they felt uncomfortable, lost interest in the lesson, and found it harder to concentrate when teaching and learning styles did not match. According to Peacock (2001), a mismatch between teaching and learning styles can cause failure and frustration and, for students not to experience that, they should take more responsibility for their own learning.

Akbarzadeh and Fatemipour (2014) also examined the match or mismatch between teaching and learning style preferences. In their study, they investigated the learning style preferences of Iranian EFL language learners and the teachers' educational treatment of those preferred styles. A translated version of Reid's PLSPQ was administered to the students and their teachers. The results of this study showed that the preferred learning style of the students was tactile, while teachers had no major teaching style preference. According to this study, there was a mismatch between teaching and learning styles where the students preferred the tactile learning style, but for the teachers, it was only a negligible teaching style. Moreover, the results indicated that most of the teachers had a fixed style of teaching which was based on the requirements of the course, and not on the students' learning style preferences. The researchers concluded that this type of teaching can be problematic since the teachers did not make the effort to design instructions that would be appropriate to the students' learning styles.

Dankić and Ahmetspahić (2009) studied the perceptual learning style preferences of 154 Bosnian high school students from Maglaj. In their study, the researchers used the Reid's PLSPQ questionnaire, which they translated into Croatian. The results of this study indicate that the most popular learning styles are auditory, kinesthetic, and tactile. The students exhibited a negative learning preference for the visual learning style. Dankić and Ahmetspahić (2009) concluded that teachers should help their students identify their learning styles, since students have different preferences. Also, teachers should be aware of their own teaching styles in order to adjust them to the styles of their students. This research included the learners of Croatian ethnicity, hence, making it comparable to the present study.

Finally, Sabeh et al. (2011) studied the learning and teaching styles of the students in an American affiliated Lebanese university, who were registered in English courses. The participants in this study were 103 students and five teachers. As an instrument in the study, a modified version of the PLSPQ was used in order to determine the learning styles of the students. The results of this study indicate that the students had major preference for four learning styles: auditory (87.5%), kinesthetic (79.2%), tactile (77.1%), and visual (66.7%). Additionally, half of the sample had a major preference for group learning (53.1%) and individual learning (56.2%). When it comes to the teachers, a large proportion (80%), exhibited a preference for visual and tactile learning styles, while they disfavored auditory and group learning styles. When investigating the impact of matching or mismatching the teaching and learning styles, the researchers found that 24% of the students whose learning styles did not match the teaching styles of their teachers failed. On the other hand, only 15% of the students whose learning styles matched the teaching styles of their teachers failed. These findings indicate that a match between the learning and teaching styles could have an impact on the student's achievement in a certain course.

6. Research on Learning Styles of Croatian EFL Learners and Teaching Styles of Their Teachers

6.1. Aim

The aim of this study is to explore whether there is a match or a mismatch between learning styles of primary school students who are learning English as a foreign language, and their teacher's teaching styles. In order to achieve the aim of this study, the following areas were investigated:

- 1) the learning styles of primary school students who were studying English as a foreign language,
- 2) the teaching styles of their teachers,
- 3) the possible match or a mismatch between the learning and teaching styles of the subjects in this study,
- 4) the relationship between the teaching and learning styles, i.e. whether a match or a mismatch between teaching and learning styles has an impact on the learners' achievements and grades.

Reid (1987), in her first hypothesis, suggested that all learners have their own learning styles and preferences, and, similar to that, teachers have their own way of teaching. That claim is also the first hypothesis of this research. According to that, in the classroom, there can be a match or a mismatch between the learning and teaching styles, which can have an impact on the students. A number of researchers (Reid, 1987; Renzulli and Smith, 1984; Wallace and Oxford, 1992) hypothesized that learners are more motivated to learn and will achieve better results if their preferred learning styles are represented in the classroom activities. Following their hypothesis, it can be assumed that if teachers' teaching styles match the students preferred learning styles, the students will have higher grades and better achievements in the classroom. On the contrary, some theorists (Rush and Moore; Felder, 1995) suggest that a mismatch between teaching and learning styles can facilitate language learning and help students develop a variety of learning styles. By following their hypothesis, it can be assumed that a mismatch between learning styles will have a positive impact on the students' grades. This paper aims at testing these three hypotheses at the primary school level.

The existing literature mainly focuses on the EFL learners at the high school or a university level. Moreover, there are no studies that investigate the learning and teaching styles in Croatian context.

This study, therefore, attempts to fill the gap in the area of language learning styles and teaching styles at the primary school level in Croatia.

6.2. Participants

A total of 102 students from primary schools in Virovitica and Gradina participated in this study. The participants in this study were from three different primary schools: 35 students attended the primary school Vladimir Nazor, 32 students were from the primary school Ivana Brlić Mažuranić, and 35 students attended the primary school Gradina. Out of 102 students that participated in this study, 47 were male and 55 were female. Along with the students, 7 EFL teachers also participated in this study. All of the teachers in this study were primary school teachers, and all were female.

6.3. Instruments and procedure

6.3.1. Learning styles

The data on learning styles were collected using Reid's PLSPQ (Appendix 1). For the purpose of this study, the questionnaire was translated to Croatian (Modić, 2013). The PLSPQ includes 30 items and covers six learning style preferences: visual, auditory, tactile, kinesthetic, group and individual. For each of the styles, there were 5 items in the questionnaire. The purpose of the questionnaire used was to identify the way students prefer to learn new information in English classes. The example statements for each learning style are as follows:

- a) Visual learning style: "When I read instructions, I understand them better."
- b) Auditory learning style: "I remember things I have heard in class better than things I have read."
- c) Kinesthetic learning style: "I understand things better in class when I participate in role-playing."
- d) Tactile learning style: "I enjoy making something for a class project."
- e) Group learning style: "I enjoy working on an assignment with two or three other classmates."
- f) Individual learning style: "I work better when I work alone."

The students were asked to respond to each statement, according to their preferred way of learning English. The students responded to the items in the questionnaire using the five point scale: 1) strongly disagree (uopće se ne slažem), 2) disagree (ne slažem se), 3) neither agree nor disagree

(niti se slažem, niti se ne slažem), 4) agree (slažem se), 5) strongly agree (u potpunosti se slažem). The results were then calculated using the IBM SPSS Statistics Data Editor.

6.3.2. Teaching styles

In order to gather data about teaching styles of the teachers who participated in this study, the questionnaire used to identify the learning styles of the students was modified. The questionnaire for teachers also had 30 items and covered the following teaching styles: visual, auditory, kinesthetic, tactile, group and individual (Appendix 2). The items in the questionnaire were oriented towards different types of activities and aids teachers use in their lessons. The example statements for each teaching style are as follows:

- a) Visual teaching style: "In class, I use the blackboard to write down information."
- b) Auditory teaching style: "In class, I rely on oral instruction when giving instructions to students."
- c) Kinesthetic teaching style: "In class, I use role-play or acting activities where students have to move or walk around."
- d) Tactile teaching style: "In class, I organize activities where students have to use different school supplies like scissors or glue."
- e) Individual style: "In class, the students work alone."
- f) Group style: "In class, the students work in groups."

The teachers were asked to respond to each statement in the questionnaire and mark how often they use certain activities or teaching aids. The teachers responded to the statements using the following scale: 1) never (nikada), 2) rarely (rijetko), 3) sometimes (ponekad), 4) often (često), 5) always (uvijek).

Before collecting the data for learning styles, the students were given permission forms that their parents signed (Appendix 3). Only the students whose parents signed the permission participated in the study. In addition to that, the students signed the permission forms confirming their willingness to participate in the study (Appendix 4). Both students and teachers were told that the questionnaires were anonymous and that their answers will only be used for the purpose of this study. The data were collected in May 2018. The results were then calculated and analyzed, and will be presented in the next section.

6.4. Results

6.4.1. Learning styles

The results for the learning styles were calculated by computing the variables that refer to certain learning styles into new variables. For example, all the variables that refer to the auditory learning styles were computed into a new variable: auditory learning style. The results for the most common learning styles were obtained by analyzing the mean value of the learning styles. As it can be seen in Table 1., the most common learning style is visual. The next preferred learning style is group, followed by auditory and kinesthetic learning styles. The individual and tactile learning styles were equally represented. Both learning styles are the least preferred learning styles of primary school students.

Table 1. The most common learning styles

Variable	Mean	Std. deviation
Visual	3.7314	.77408
Group	3.6294	.90166
Auditory	3.5706	.61428
Kinesthetic	3.5137	.77919
Individual	3.4392	.97576
Tactile	3.4392	.73823

When it comes to the visual learning style, students mostly stated that they understand the information better when they read the instructions. In the questionnaire, for the statement: "I understand better when I read the instructions" 43.1% of the students said they strongly agree and 42.2% of the students said they agree. For the group learning style, most of the students preferred working on a task with two or three other students. For the statement: "I enjoy working on an assignment with two or three other classmates", 32.4% of the students stated that they strongly agree and 32.4% of the students stated that they agree. In the auditory learning style, students stated that they understand the information better when the teacher gives them oral instructions for the task. For the statement: "I understand better when the teacher gives oral instructions", 21.6% of the students said they strongly agree and 54.9% of the students stated they agree with this statement. When it comes to the activities connected with the kinesthetic learning style, most of the students stated that they like learning through practical work. For the statement: "I enjoy learning through practical work", 30.4% of the students opted for strongly agree and 44.1% of the students said they agree.

Even though the individual and tactile learning styles are the least preferred among the students, there are certain activities connected to these learning styles that students prefer more than others. For the individual learning style, the students claimed that they learn more when they study alone, and for the tactile learning style, the students claimed that they remember something longer when they can make something with their own hands, for example a poster.

6.4.2. Teaching styles

Similar to the learning styles, the results for the teaching styles were calculated by computing the variables that refer to certain teaching styles and the mean value of the teaching styles were analyzed. When it comes to group and individual teaching styles, the frequencies for each statement were calculated. As seen in Table 2., the most common teaching style is visual. The next teaching style is auditory, followed by tactile and kinesthetic teaching styles. From these results, it is noticeable that the visual teaching style is dominant, while the tactile and kinesthetic teaching styles are not frequently used in the classroom.

Table 2. The most common teaching styles

Variable	Mean	Std. deviation
Visual	4.0714	.31339
Auditory	3.9643	.27683
Tactile	2.8571	.62944
Kinesthetic	2.2619	.73193

For each teaching style, there are certain activities and teaching aids that teachers mostly use. For the visual teaching style, 71.4% of the teachers stated that they always use Power Point Presentations in their lessons and 57.1% of the teachers stated that they always use pictures in their lessons. For the auditory learning style, all the teachers in this study stated that they always use audio materials, like recorded stories or conversations, in their lessons. Furthermore, 85.7% of the teachers stated that they always encourage their students to read out loud during the lesson. Even though the tactile and kinesthetic teaching styles are not frequently used, there are some activities teachers use to promote these teaching styles. In order to promote the tactile teaching style, teachers mostly design activities where students have to use different objects, and for the promotion of the kinesthetic teaching style, teachers sometimes use movement and mime in order

to explain something to the students. When it comes to the individual and group teaching styles, the frequencies for each statement are shown in Figure 1.

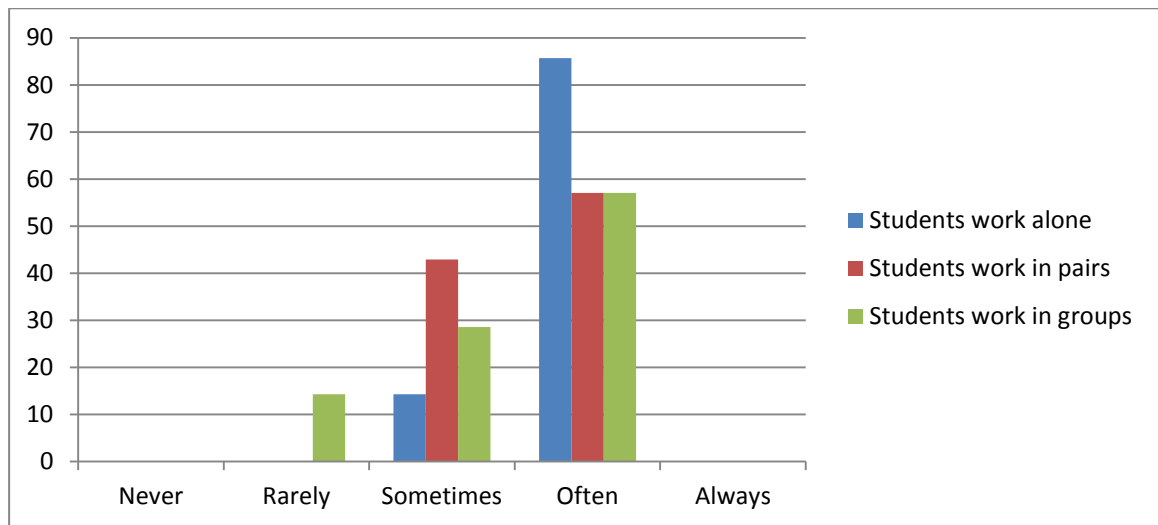


Figure 1. Individual and group teaching styles

The teachers stated that, during their lessons, students mostly work alone. The less frequent activities are the ones where students work in pairs, followed by group work. Neither group nor individual teaching style is always used in the lessons. From Figure 1, it can be seen that teachers design activities where they use different social forms and classroom organization.

Since there were only seven teachers who participated in this study, it would be difficult to make generalizations about primary school EFL teachers. However, from the data provided by the teachers in the questionnaires, it can be seen that the dominant teaching style is visual.

6.4.3. Match or mismatch between teaching and learning styles

From the results, it can be seen that there is a match between teaching styles of primary school teachers and their students' learning styles. Overall, the students preferred the visual learning style, and the teachers mostly used teaching aids and activities that correspond to the visual teaching style. The match between the visual learning and teaching styles can also be noticed by analyzing the individual statements in the questionnaire. For the visual learning style, the students mostly preferred being given written instructions from the teacher for a certain activity. Furthermore, 40.2% of the students strongly agreed with the statement: "I like it more when the information is written on the blackboard rather than just listening". Matching those preferences of the students, 57.1% of the teachers stated that they always use the blackboard to write down information and 85.7% of the teachers claimed that they often used written instructions when explaining the

activities. The second most common teaching style was auditory, while the auditory learning style was the third preferred learning style of the students. The students who preferred the auditory learning style stated that they prefer when the teacher gives oral instructions for a certain task. When it comes to the auditory teaching style, 57.1% of the teachers stated that they always rely on oral instructions when giving tasks. The kinesthetic and tactile learning and teaching styles were not dominant in both groups.

The mismatch between teaching and learning styles occurs between the individual and group learning and teaching styles. The group learning style was the second most preferred among students, while group activities were the least used among teachers. Another mismatch can be observed with the individual learning and teaching styles. The students stated that they do not prefer the individual learning style, since it was second to last on the list of preferred learning styles. However, the activities that teachers organize are mostly the ones where students have to work alone. As shown in Figure 2., the students' answers to the statements concerned with the individual learning style are distributed across all five points on the scale. As a result, the individual learning style was not considered a preferred learning style of students.

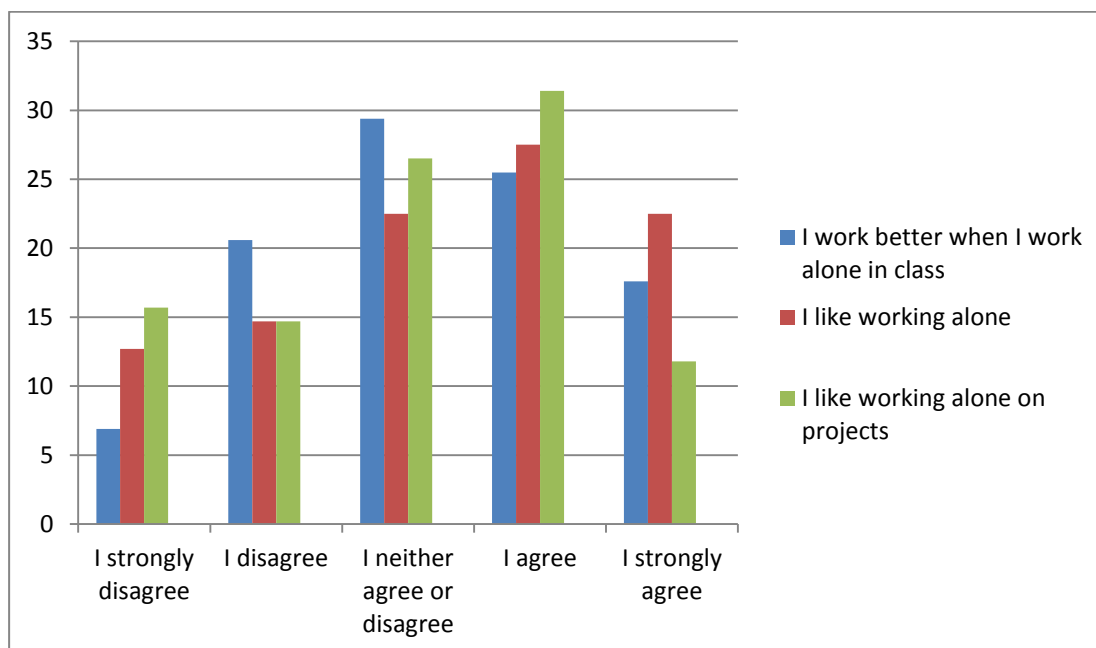


Figure 2. Distribution of students' preferences regarding the individual learning style

As MacBeath (1999) and Wubbels and Levy (1991) suggest, teachers' behavior and their teaching styles can have an impact on the students. In order to examine whether there was any influence of teaching styles on the learners, the correlation between certain variables was tested. The results

showed that there was a significant positive correlation between the students' grades and the individual learning style, as shown in Table 3.

Table 3. Correlation between students' grades in English and the individual and kinesthetic learning styles

		Students' grade in English	Individual learning style
Students' grade in English	Pearson Correlation	1	.297**
	Sig. (2-tailed)		.002
	N	102	102
		Students' grade in English	Kinesthetic Learning style
Students' grade in English	Pearson Correlation	1	.208*
	Sig. (2-tailed)		.036
	N	102	102

**p<.01

From the data in Table 3., it can be observed that there is a relationship between the individual learning style and the students' grade in English. The students who prefer the individual learning style have better grades in their English class. This can be due to the fact that the teachers mostly use activities where students work individually on certain tasks. As a result of that, the students who prefer working alone will achieve better results since their learning style is catered for during the lesson. Another relationship between learning styles and students' grades was found when analyzing the relationship between the kinesthetic learning style and the students' grades. As shown in Table 3., there is a relationship between the kinesthetic learning style and the students' achievement in English class.

From the data shown in Table 3., it can also be noticed that there is a positive correlation between the student's grades and the kinesthetic learning style. This means that the students who prefer the kinesthetic learning style have better grades in English class. These results are interesting since the kinesthetic style is not the dominant learning style of the students or the dominant teaching style of their teachers. The achievement of the students who prefer the kinesthetic learning style may be attributed to the fact that the students mostly stated that they like to learn through practical work, where 30.4% of the students strongly agreed and 44.1% of the students agreed with the

statement: "In class, I like learning through practical work". Furthermore, 31.4% of the students strongly agreed and 32.4% of the students agreed with the statement that they learn more when they can participate in classroom activities connected to the topic of that particular lesson. This means that the students who prefer the kinesthetic learning style do not necessarily rely on their experiences with experiments in class or role-playing activities, but they rely on their involvement in the classroom activities. Thus, teachers should organize their activities in a way that most students will be included in the lesson. This type of classroom organization can be particularly beneficial to the students who prefer kinesthetic learning style since they are directly involved in a dynamic learning process of a problem solving task.

7. Discussion

This study showed that the most common learning style of the primary school students who participated in this study was visual. The next preferred learning style was group, followed by auditory and kinesthetic. The least preferred learning styles were individual and tactile. The results of this study differ from the studies conducted by Reid (1987), Mulalic, Ahmad, and Shah (2009) and Dankić and Ahmetspahić (2009). Joy M. Reid (1987) and Mulalic et al. (2009) indicated that the students preferred kinesthetic and tactile learning styles, while Dankinć and Ahmetspahić (2009) suggested that the student preferred the auditory, kinesthetic and tactile learning styles. The difference in the results could be attributed to the age of the participants. The participants in this study were primary school students, while in the above mentioned studies, the students were attending high school or college. Another possible reason for the difference in the results could be attributed to Reid's claim (1987) that learners from different language backgrounds have different learning style preferences. The variation in learning styles proves the first hypothesis of this study, which is that all learners have their own learning style preferences.

When it comes to the most common teaching styles, this study revealed that the primary school teachers preferred the visual teaching style. That was followed by the auditory and tactile teaching style, while the least preferred teaching style was kinesthetic. As for the individual and group learning styles, the teachers stated that, during their lessons, students mostly work alone. The activities involving pair work and group work were less frequent. The results of this study are similar to the study carried out by SabeH et al. (2011) who indicated that a large proportion of teachers preferred the visual and tactile learning styles. Contrarily to that, Peacock' study (2001) showed that most teachers favored the kinesthetic and group learning styles. The results of the present study, however, rank the same teaching styles as the least preferred among the teachers. As previously mentioned, the results of teaching styles cannot be generalized since there was a small number of teachers who participated in this study. Nevertheless, this study shows that, just like learners have preferences for different learning styles, teachers also have different preferences when it comes to their teaching styles.

The results of this study show that there is a match between learning styles and teaching styles. The primary school students who participated in this study prefer the visual learning style, and their teachers prefer the visual teaching style. The students' third but the teacher's second preferred learning style was auditory. Even though the research participants are not equally represented in both groups, it can be seen that both teachers and students use the auditory style in their learning and teaching. On the other hand, the students stated that their second favored learning style was the group learning style. Their teachers stated that they mostly use activities where students have

to work individually, ranking group work as the least used type of classroom organization. These results show that, even though the dominant learning and teaching styles match, there is a mismatch between the overall preference of teaching and learning styles. The second and third hypothesis of this study are concerned with the influence of matching or mismatching on the students' achievement in the classroom. Reid (1987), Renzulli and Smith (1984), Wallace and Oxford (1992), have stated that the learners are more likely to achieve better results if their preferred learning styles are represented in the classroom activities. The results of the present study support the hypothesis indicating that there is a positive correlation between the individual learning style and the students' grades. This could be due to the fact that teachers who participated in this study claim that they often design activities where students have to work individually. According to their answers, it can be concluded that those students who prefer the learning style that matched their teacher's teaching style achieve better results in English.

The second significant correlation between language learning styles and the students' grades was somewhat surprising. Namely, the students who prefer the kinesthetic learning style, achieve better results in class. These results are surprising bearing in mind that kinesthetic learning style is not favored by the students, and is ranked as the least preferred teaching style. The results could be attributed to the fact that the students who prefer kinesthetic learning style like to participate in different types of activities and be active during the lesson. This correlation confirms our third hypothesis based on Rush and Moore's (as cited in Alkhatnai, 2011) and Felder's (1995) studies, suggesting that a mismatch between teaching and learning styles could have a positive impact on the students' grades.

The results in this paper are to an extent conflicting, but very much in line with the previous research findings. The evidence definitely support the idea that both language learners and language teachers have certain preferences when it comes to learning and teaching. Due to the fact that there was a smaller number of participants in this study, and that they mostly come from similar cultural backgrounds, the results should not be taken as completely reliable. What is more, the achievement of the students was based on their grades in English classes. The question is whether that represents a realistic picture of their success and achievement in language learning. Further research may deal with the relationship between the students' learning styles and their achievement where their success in language learning is not based solely on their grades. Further research should be carried out concerning this topic, with more participants who come from different backgrounds and from different schools, in order to fully understand the relationship between teaching and learning styles.

8. Conclusion

This study was conducted with the aim of revealing the preferred teaching and learning styles of primary school teachers and learners, and their potential match/mismatch. As mentioned above, the teaching and learning styles can have a major impact on the students' achievements and on the overall relationship between the students and the teachers. The results of this study showed that the students favored the visual and group learning styles, while the teachers favored the visual and auditory teaching styles. According to the results, it can be concluded that there is a match between the dominant learning and teaching styles. On the other hand, the teachers also preferred to design activities in which students work individually, while students did not prefer the individual learning style. What is more, this study revealed that learning styles can have an impact on the students' achievements. It was concluded that the individual and kinesthetic learning styles had a positive relationship with the students' achievements. This would entail that students who preferred those learning styles had a better chance of achieving higher grades in English classes. However, there are certain limitations to this study that need to be taken into account before drawing broader conclusions. There was a small number of teachers who participated in this study, so the results for the teaching styles may not represent the complete picture of the preferred teaching styles. Moreover, the students were all from similar cultural backgrounds, and all the students who participated in this study attended one of three primary schools in Virovitica and Gradina. As a result of that, the findings of this study may not be applicable to other schools or a broader student sample. However, the results of this study can be used to help teachers increase their awareness of their students' learning style preferences, and the way they like to learn. Since it was revealed that students have different preferences when it comes to the way they like to learn, they should take responsibility for their own learning and try to integrate them into their learning process. Since teachers use different teaching styles and methods, not all learning styles will be represented in every lesson. Because of that, students can make an effort to try different learning styles and techniques in order to increase their chances of success. As shown in this study, teaching and learning styles can have an impact on students' achievement. Consequently, teachers should make an effort to identify their students' learning styles and their own teaching styles. In order to understand the way learners like to learn, teachers need to be aware of their own teaching styles and practices in the classroom. When teachers are aware of their students' learning styles, it can be easier for them to plan and organize their lessons in a way that would accommodate a larger number of students. Favoring only one learning style could be detrimental for students with

different learning style preferences. Because of that, teachers should teach in a balanced way, using different methods and approaches that would accommodate different learning styles. In future research, besides studying the preferences of teachers and learners, it might be beneficial to study the impact of teaching styles on students and their academic achievements. The students' opinions on their teachers' teaching styles could be addressed as well. That way, students could express their feelings and attitudes about the teaching methods and techniques their teachers use. That would also provide the researches with a better insight into the relationship between teaching and learning styles. Lastly, it might be beneficial to explore whether there is a change in learning styles over the years. This might provide the teachers with a better understanding of what their learners prefer in different periods of their lives.

To conclude, teaching and learning styles are inevitably connected and can have an impact on both teachers and learners. The awareness of how students like to learn can help teachers prepare their lessons which, in return, could benefit the students with their academic achievements. Teachers and learners should be aware of their own styles and preferences, but should also be flexible enough to change the existing ones if necessary.

9. Bibliography

Akbarzadeh, Marzieh, HamidrezaFatemipour (2014). Examining the match or mismatch between teaching style preferences and upper-intermediate EFL learners' learning style preferences. *Procedia - Social and Behavioral Sciences* 98: 137-142.

Alkhatnai, Mubarak (2011). Learning Styles of EFL Saudi College-Level Students in Online and Traditional Educational Environments. Indiana University of Pennsylvania. Available at <https://knowledge.library.iup.edu/cgi/viewcontent.cgi?article=1578&context=etd> (Visited on 3 June 2018).

Bayrak, BeyzaKaradeniz, SertelAltun (2009). Is there any difference between learning styles of student science teachers in relation to both their grade and gender? *Procedia - Social and Behavioral Sciences* 1: 765-770.

Dankić, Izabela, Almira Ahmetspahić (2009). Learning styles in FL teaching: a case study of Bosnian students studying English. *Hum* 5:154-162.

Cooper, Thomas C. (2001). Foreign language teaching style and personality. *Foreign Language Annals* 34: 301-317.

Dörnyei, Zoltán (2005). *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

Dunn, Rita (1990). Understanding the Dunn and Dunn learning styles model and the need for individual diagnosis and prescription. *Journal of Reading, Writing, and Learning Disabilities International* 6: 223-247.

Dunn, Rita S., Kenneth J. Dunn (1979). Learning styles/teaching styles: should they...can they...be matched? *Educational Leadership* 36: 238-244.

Dunn, Rita S., Kenneth J. Dunn, G.E. Price (1975). *The Learning Style Inventory*. Kansas: Price Systems.

Ehrman, Madeline, Rebecca Oxford (1990). Adult language learning styles and strategies in an intensive training setting. *TheModern Language Journal* 74: 311-327.

Felder, M. Richard (1995). Learning and teaching styles in foreign and second language education. *Foreign Language Annals* 28: 21-31.

Felder, M. Richard, J.E. Spurlin (2005). Application, reliability and validity of index of learning styles. *International Journal of Engineering Education* 21: 103-112.

Fisher, Darrel, Barry Fraser, Harry Kent (1998). Relationships between teacher - student interpersonal behavior and teacher personality. *School Psychology International* 19: 99-119.

Gilakjani, Pourhosein Abbas (2012). A match or mismatch between learning styles of the learners and teaching styles of the teachers. *Modern Education and Computer Science* 11: 51-60.

Grasha, Anthony F. (1994). A matter of style: the teacher as expert, formal authority, personal model, facilitator, and delegator. *College Teaching* 42:142-149.

Gregorc, Anthony F. (1979). Learning/teaching styles: potent forces behind them. *Educational Leadership* 36: 234-237.

Griggs, Shirley A., Rita S. Dunn (1984). Selected case studies of the learning style preferences of gifted students. *Gifted Child Quarterly* 28: 115-119.

Hussain, Nasreen, NaidaAyub(2012). Learning styles of students and teaching styles of teachers in business education: a case study of Pakistan.*Procedia - Social and Behavioral Sciences* 69: 1737-1740.

Joyce, Bruce, Marsha Weil, Emily Calhoun (2015). *Models of teaching*. Boston:Pearson.

Keefe, James W. (1988). *Profiling and Utilizing Learning Style*. NASSP Learning Style Series. Reston: National Association of Secondary School Principals.

Kinsella, Kate, Kathy Sherak (1998). Designing ESL classroom collaboration to accommodate diverse work styles. In Reid, Joy M. (1998). *Understanding learning styles in the second language classroom*. Upper Saddle River: Prentice Hall Regents.

Kolb, Alice, David Kolb (2005). The Kolb learning style inventory - Version 3.1. 2005 technical specifications. Available at:https://www.researchgate.net/publication/241157771_The_Kolb_Learning_Style_Inventory-Version_31_2005_Technical_Specifications (visited on 2 June 2018).

Kolb, David A. (1984). *Experimental Learning: Experience as the Source of Learning and Development*. Englewood Cliffs: Prentice-Hall.

Kolb, David A. (2000). *Facilitator's guide to learning*. Boston: Hay Group.

MacBeath, John (1999) *Schools Must Speak for Themselves: The Case for School Self-Evaluation*. London: Routledge.

Manner, Barbara M. (2001). Learning styles and multiple intelligences in students: getting the most out of your students' learning. *Journal of College Science Teaching* 30: 390-393.

McLeod, Saul (2010). Kolb - Learning styles.

Available at: <https://www.simplypsychology.org/learning-kolb.html> (Visited on 7 June 2018).

Modić, Matea (2013). Exploring the Relationship between teaching and learning styles in teaching English as a foreign language. Master Thesis. Faculty of Humanities and Social Sciences. Available at: <https://repositorij.ffos.hr/islandora/object/ffos%3A1362> (Visited on 4 June 2018).

Mulalic, Almasa, Parilah Mohd Shah, Fauziah Ahmad (2009). Learning-style preference of ESL students. *Asian Journal of Teaching and Learning in Higher Education* 1: 9-17.

Norland, Emmalou, Joe E. Heimlich (2002). Teaching style: where are we now? *New Directions for Adult and Continuing Education* 93: 17-25.

Othman, Norasmah, Mohd Hasril Amiruddin (2010). Different perspectives of learning styles from VARK model. *Procedia - Social and Behavioral Sciences* 7: 652-660.

Oxford, Rebecca L. (1990). *Language Learning Strategies: What Every Teacher Should Know*. New York: Newbury House Publishers.

Oxford, Rebecca L., Neil J. Anderson (1995). State of the art: A crosscultural view of language learning styles. *Language Teaching* 28: 201-215.

Palos, Ramona, Laurentiu Maricutoiu (2006). *The impact of teacher's thinking and learning styles upon his/her teaching style*. West University of Timisoara, Romania

Peacock, Matthew (2001). Match or mismatch? Learning styles and teaching styles in EFL. *International Journal of Applied Linguistics* 11: 1-20.

- Reid, Gavin (2005). *Learning Styles and Inclusion*. London: Paul Chapman Publishing.
- Reid, Joy M. (1987). The learning style preferences of ESL students. *TESOL Quarterly* 21: 87-110.
- Reid, Joy M. (1998). *Understanding Learning Styles in the Second Language Classroom*. Upper Saddle River: Prentice Hall Regents.
- Riding, Richard, Indra Cheema (1991). Cognitive styles: an overview and integration. *Educational Psychology* 11: 193-215.
- Rush, Michael G., David M. Moore (1991). Effects of restructuring training and cognitive style. *Educational Psychology* 11: 309-321.
- Sabeh, Gada, Rima Bahous, Nahla Nola Bacha, Mona Nabhani (2011). A match or a mismatch between students and teacher learning style preferences. *International Journal of English Linguistics* 1: 162-172.
- Sarasin, Lynne Celli (1999). *Learning Style Perspectives, Impact in the Classroom*. Madison, WI: Atwood Publishing.
- Sharp, Daryl (1987). *Personality Types: Jung's Model of Typology*. Toronto: Inner City Books.
- Singh, Laxman, Punita Govil, Rekha Rani (2015). Learning style preferences among secondary school students. *International Journal of Recent Scientific Research* 6: 3924-3928.
- Smith, Linda H., Joseph S. Renzulli (1984). Learning style preference: a practical approach for classroom teachers. *Theory into Practice* 23: 44-50.
- Smith, Peter J., Jenifer Dalton (2005). *Accommodating Learning Styles: Relevance and Good Practice in Vocational Education and Training*. Australia: NCVER.
- Zhou, Mai (2011). Learning styles and teaching styles in college English teaching. *International Education Studies* 4: 73-77.
- Wallace, B., R.L. Oxford. (1992). Disparity in learning styles and teaching styles in the ESL classroom: Does this mean war?" *AMTESOL Journal* 1: 45-68.

Wubbels, Theo, Jack Levy (1991). A comparison of interpersonal behavior of Dutch and American teachers. *International Journal of Intercultural Relations*15: 1–18.

Wong, WaiLam Heidi (2015). AStudyoflanguagelearningstyleandteachingstylepreferencesof Hong Kong CommunityCollegestudentsandteachersin English for academicpurposes (EAP) contexts.

Availableat:

https://ir.canterbury.ac.nz/bitstream/handle/10092/11661/Thesis_whole_1.pdf?sequence=5

(Visited on 4 June 2018)

10. Appendices

Appendix 1

Upitnik o stilovima učenja

Ljudi uče na različite načine.

Ovim upitnikom se žele utvrditi način(i) na koje ti najbolje učiš odnosno način(i) na koje voliš učiti.

Upitnik je u potpunosti anoniman. Molim te da u potpunosti odgovoriš na svako pitanje.

Molim da odgovoriš na tvrdnje kako se odnose na tvoje učenje engleskog jezika.

Naznači u kojoj se mjeri slažeš s navedenim tvrdnjama prema sljedećoj ljestvici:

1- Uopće se ne slažem s navedenom tvrdnjom

2- Ne slažem se s navedenom tvrdnjom

3- Niti se slažem, niti se ne slažem s navedenom tvrdnjom

4- Slažem se s navedenom tvrdnjom

5- U potpunosti se slažem s navedenom tvrdnjom

Dob: _____

Razred: _____

Škola: _____

Spol (zaokruži): m / ž

Godine učenja engleskog jezika: _____

Ocjena iz engleskog jezika: _____

		Uopće se ne slažem	Ne slažem se	Niti se slažem, niti se ne slažem	Slažem se	U potpunosti se slažem
1.	Bolje razumijem kad mi nastavnik/ca daje usmene upute.	1	2	3	4	5
2.	Na nastavi volim učiti kroz praktičan rad.	1	2	3	4	5
3.	Napravim najviše posla kad radim s drugima.	1	2	3	4	5
4.	Više naučim kad učim u skupini.	1	2	3	4	5
5.	Za vrijeme nastave najbolje učim kad radim s drugima.	1	2	3	4	5

		Uopće se ne slažem	Ne slažem se	Niti se slažem, niti se ne slažem	Slažem se	U potpunosti se slažem
6.	Više volim kad su informacije prikazane na ploči nego kad ih samo slušam.	1	2	3	4	5
7.	Nešto naučim bolje kad mi netko u razredu kaže kako to trebam napraviti.	1	2	3	4	5
8.	Bolje učim kroz praktičan rad na nastavi.	1	2	3	4	5
9.	Bolje pamtim stvari koje čujem u razredu nego ono što pročitam.	1	2	3	4	5
10.	Bolje slijedim napisane, nego usmene upute.	1	2	3	4	5
11.	Više naučim kad mogu načiniti model (maketu) nečega.	1	2	3	4	5
12.	Bolje razumijem kad pročitam upute.	1	2	3	4	5
13.	Bolje upamtim stvari kad učim sam/a.	1	2	3	4	5
14.	Naučim više kad nešto radim za razredni projekt.	1	2	3	4	5
15.	Volim učiti kad mogu eksperimentirati u razredu.	1	2	3	4	5
16.	Bolje učim kad crtam (crteže) za vrijeme učenja.	1	2	3	4	5
17.	Na nastavi bolje učim kad nastavnik/ca drži predavanje.	1	2	3	4	5
18.	Kad radim sam/a, učim bolje.	1	2	3	4	5
19.	Bolje razumijem kad mogu sudjelovati u igranju uloga u razredu.	1	2	3	4	5
20.	Bolje učim kad slušam nekoga u razredu.	1	2	3	4	5
21.	Volim raditi na nekom zadatku s još dva ili tri učenika.	1	2	3	4	5
22.	Kada nešto napravim vlastitim rukama, duže se sjećam naučenoga (npr plakat iz gramatike).	1	2	3	4	5
23.	Volim učiti s drugima.	1	2	3	4	5

		Uopće se ne slažem	Ne slažem se	Niti se slažem, niti se ne slažem	Slažem se	U potpunosti se slažem
24.	Bolje učim kad čitam, nego kad slušam nekoga.	1	2	3	4	5
25.	Volim izrađivati nešto za razredni projekt.	1	2	3	4	5
26.	Najbolje nešto naučim u razredu kad mogu sudjelovati u aktivnostima vezanim za to.	1	2	3	4	5
27.	U razredu radim bolje kad radim sam/a.	1	2	3	4	5
28.	Volim raditi sam/a na projektima.	1	2	3	4	5
29.	Više naučim kad čitam iz udžbenika nego kad slušam predavanja.	1	2	3	4	5
30.	Volim raditi sam/a.	1	2	3	4	5

HVALA NA SUDJELOVANJU!

Appendix 2

Upitnik za nastavnike o aktivnostima i materijalima koji se koriste na nastavi

Učenici uče na različite načine.

Ovim upitnikom želi se utvrditi koje aktivnosti i materijali se najčešće koriste u nastavi te koliko su oni kompatibilni s načinima (stilovima) učenja učenika.

Upitnik je u potpunosti anonim. Molim Vas da u potpunosti odgovorite na svako pitanje.

Naznačite u kojoj mjeri koristite navedene aktivnosti i materijale u svojoj nastavi prema sljedećoj ljestvici:

- 1- Nikada
- 2- Rijetko
- 3- Ponekad
- 4- Često
- 5- Uvijek

Spol (zaokružite): m / ž

Godine rada kao nastavnik/ca engleskoga jezika: _____

		Nikada	Rijetko	Ponekad	Često	Uvijek
1.	U nastavi koristim plakate/mape	1	2	3	4	5
2.	U nastavi koristim slike	1	2	3	4	5
3.	U nastavi koristim Power Point prezentacije	1	2	3	4	5
4.	U nastavi koristim ploču za zapisivanje informacija, crtanje, itd.	1	2	3	4	5
5.	U nastavi koristim filmove ili kratke video uratke	1	2	3	4	5
6.	U nastavi koristim slike ili pisane tekstove u aktivnostima za učenike	1	2	3	4	5
7.	U nastavi koristim pisane upute kada učenicima zadajem zadatak	1	2	3	4	5
8.	U nastavi zadajem učenicima da nešto nacrtaju, stvore umnu mapu ili zapišu nešto	1	2	3	4	5
9.	U nastavi koristim pjesme, kratke rime	1	2	3	4	5

10.	U nastavi ohrabrujem učenike da čitaju na glas	1	2	3	4	5
		Nikada	Rijetko	Ponekad	Često	Uvijek
11.	U nastavi koristim auditivne materijale (snimljen razgovor, priče na engleskom jeziku)	1	2	3	4	5
12.	U nastavi se oslanjam na usmene upute pri zadavanju zadataka učenicima	1	2	3	4	5
13.	Na nastavi organiziram rasprave ili debate s učenicima	1	2	3	4	5
14.	Na nastavi učenici prezentiraju svoje radove ili održavaju prezentaciju	1	2	3	4	5
15.	Na nastavi ja vodim glavnu riječ (ja govorim veći dio sata)	1	2	3	4	5
16.	Na nastavi učenici imaju priliku razgovarati i govoriti (vezano uz temu sata)	1	2	3	4	5
17.	Na nastavi učenici se kreću	1	2	3	4	5
18.	Na nastavi koristim razne pokrete kako bi objasnio/la nove pojmove ili riječi	1	2	3	4	5
19.	Na nastavi organiziram aktivnosti u kojima se učenici moraju kretati	1	2	3	4	5
20.	Na nastavi radim kratke pauze u kojima se učenici mogu odmoriti/prošetati	1	2	3	4	5
21.	Na nastavi koristim igre uloga ili glumu u kojoj se učenici kreću, koriste pokrete	1	2	3	4	5
22.	Na nastavi promičem fizičku aktivnost učenika	1	2	3	4	5
23.	Na nastavi zadajem zadatke u kojima učenici moraju nešto izraditi	1	2	3	4	5
24.	Na nastavi zadajem projekte u kojima učenici moraju nešto pronaći ili izraditi kroz nekoliko školskih sati	1	2	3	4	5
25.	Na nastavi koristim stvarne predmete vezane za temu kojima se učenici mogu služiti	1	2	3	4	5
26.	Na nastavi zadajem aktivnosti u kojima se učenici moraju služiti različitim predmetima (stvarni objekti, papiri, slike)	1	2	3	4	5
27.	Na nastavi koristim aktivnosti u kojima se učenici služe bojicama, škarama, ljepilom, i drugim školskim priborom.	1	2	3	4	5
28.	Na nastavi učenici rade samostalno	1	2	3	4	5
29.	Na nastavi učenici rade u paru	1	2	3	4	5
30.	Na nastavi učenici rade u grupama	1	2	3	4	5

HVALA NA SUDJELOVANJU!

Poštovani roditelji!

Za potrebe diplomskog rada studentice engleskog jezika i književnosti i pedagogije, *Sabine Vukić* provodi se istraživanje na temu "*Usklađenost i neusklađenost stilova učenja i stilova poučavanja u nastavi engleskoga kao stranoga jezika na osnovnoškolskoj razini*". Cilj ovog istraživanja je dobiti uvid u način na koji učenici vole učiti te u način na koji nastavnici najčešće izvode nastavu i koliko su oni kompatibilni.

Sukladno Zakonu o psihološkoj djelatnosti i Etičkom kodeksu, podaci dobiveni u ovom istraživanju bit će strogo povjerljivi i čuvani. Svi izvještaji nastali na temelju ovog istraživanja koristit će rezultate koji govore o grupi djece ove dobi općenito (nigdje se neće navoditi rezultati pojedinačnog sudionika).

Dozvolu za ispitivanje dobila sam od ravnatelja škole, a u skladu s Etičkim kodeksom, prije ispitivanja željela sam Vas kao roditelje obavijestiti o istraživanju i zatražiti Vašu suglasnost. Također, Vašoj djeci će se pobliže objasniti svrha ispitivanja, odgovoriti na njihova pitanja, te ih zamoliti i za njihov pristanak za sudjelovanje u istraživanju. Nakon toga, ispitivanje će se obaviti samo na onim učenicima koji su pristali sudjelovati.

Ukoliko imate ikakva pitanja možete kontaktirati diplomanticu *Sabinu Vukić* na sljedećoj e-mail adresi: sabinavt100@gmail.com

SUGLASNOST

Suglasan sam da moje dijete _____
(prezime i ime, razred)

sudjeluje u istraživanju, uz pridržavanje Etičkog kodeksa i uz zaštitu tajnosti podataka (molim, zaokružite DA ukoliko ste suglasni da dijete sudjeluje u istraživanju, a NE ukoliko to ne želite).

DA

NE

(potpis roditelja)

U Virovitici, _____

SUGLASNOST

o provođenju istraživanja na učenicima

Molimo Vašu suglasnost o sudjelovanju u istraživanju za potrebe diplomskog rada *Sabine Vukićna* temu *Usklađenost i neusklađenost stilova učenja i stilova poučavanja u nastavi engleskoga kao stranoga jezika na osnovnoškolskoj razini*.

(napiši svoje prezime i ime, razred tiskanim slovima na gornju crtu)

„Svojim potpisom izražavam svoj pristanak za sudjelovanje u istraživanju i potvrđujem da sam informiran da je moje sudjelovanje u istraživanju dobrovoljno, da imam pravo odustati u bilo kojem trenutku, da su istraživači obvezni pridržavati se Etičkog kodeksa i da su dužni zaštititi tajnost podataka.“

(vlastiti potpis)

U Virovitici,