

REVIJA ZA ELEMENTARNO IZOBRAŽEVANJE
JOURNAL OF ELEMENTARY EDUCATION

ISSN 2350-4803 (SPLET/ONLINE)
ISSN 1855-4431 (TISK/PRINT)

Revija za elementarno izobraževanje

Odgovorni urednik:	red. prof. dr. Matjaž Duh (Univerza v Mariboru, Pedagoška fakulteta, Slovenija)
Urednica za področje družboslovja:	izr. prof. dr. Silva Bratož (Univerza na Primorskem, Pedagoška fakulteta, Slovenija)
Urednica za področje humanistike:	izr. prof. Sonja Starc (Univerza na Primorskem, Pedagoška fakulteta, Slovenija)
Urednik za področje naravoslovja in informatike:	doc. dr. Tomaž Bratina (Univerza v Mariboru, Pedagoška fakulteta, Slovenija)
Tehnična urednika:	doc. dr. Jerneja Herzog (Univerza v Mariboru, Pedagoška fakulteta, Slovenija) Jan Perša (Univerza v Mariboru)

MEDNARODNI UREDNIŠKI ODBOR

dr. Renate Seebauer, (Pädagogische Hochschule Wien, Avstrija), dr. Ligita Stramkale, (Latvijas Universitāte, Rīga, Latvija), dr. Herbert Zoglowek, (UiT The Arctic University of Norway, Tromsø, Norveška), dr. Maria Aleksandrovich, (Akademia Pomorska w Słupsku, Poljska), dr. Nevenka Tatković, (Fakultet za odgojne i obrazovne znanosti, Sveučilište Jurja Dobrića u Puli, Hrvaška), dr. Grozdanka Gojkov, (Učiteljski fakultet Univerziteta u Beogradu, Srbija), dr. Jelena Prtljaga, (Visoka škola strukovnih studija za obrazovanje vaspitača »Mihailo Palov« Vršac, Srbija), ddr. Jürgen Kühnis, (Pädagogische Hochschule Schwyz, Švica), dr. Marie Fulková, (Pedagogická fakulta, Univerzita Karlově, Praha, Češka), dr. Věra Janíková, (Pedagogická fakulta, Masarykova univerzita, Brno, Češka), dr. Oliver Holz, Faculty of Economics and Business, KU Leuven, Belgija, (dr. Ljubica Marjanović Umek, (Filozofska fakulteta, Univerza v Ljubljani, Slovenija), dr. Janez Vogrinc, (Pedagoška fakulteta Univerza v Ljubljani, Slovenija), dr. Milena Valenčič Zuljan, (Pedagoška fakulteta, Univerza v Ljubljani, Slovenija), dr. Mateja Pšunder, (Filozofska fakulteta Univerze v Mariboru, Slovenija), dr. Majda Schmidt Krajnc, (Pedagoška fakulteta, Univerze v Mariboru, Slovenija), dr. Alenka Lipovec (Pedagoška fakulteta, Univerze v Mariboru, Pedagoška fakulteta), dr. Sonja Rutar (Univerza na Primorskem, Pedagoška fakulteta, Slovenija), dr. Tina Štemberger, (Univerza na Primorskem, Pedagoška fakulteta, Slovenija)

NASLOV UREDNIŠTVA

Revija za elementarno izobraževanje, Uredništvo revije Revija za elementarno izobraževanje
Koroška cesta 160, SI-2000 Maribor, Slovenija, e-pošta: rei.pef@um.si, http://rei.um.si

ZALOŽNIK

Univerzitetna založba Univerze v Mariboru
Slomškov trg 15, 2000 Maribor, Slovenija
e-pošta: zalozba@um.si, http://press.um.si/, http://journals.um.si/

Članki se referirajo v: SCOPUS (Elsevier Bibliographic Databases), DOAJ, ERIH PLUS, EBSCO (EBSCOhostweb), Ulrich's Periodicals Directory, IBZ (Internationale Bibliographie der Zeitschriftenliteratur), Proquest, dLib.si, DKUM, COBISS (Co-operative Online Bibliographic System and Services).

Članki v reviji so recenzirani. Revija za elementarno izobraževanje je revija, ki jo izdaja Univerzitetna založba Univerze v Mariboru v soizdajateljstvu Pedagoške fakultete Univerze v Mariboru, Pedagoške fakultete Univerze na Primorskem in Pedagoške fakultete Karlove Univerze v Pragi. V njej so objavljeni prispevki s področja vzgoje in izobraževanja zlasti na predšolski in osnovnošolski stopnji. Avtorji prispevkov z znanstvenega vidika pišejo o problemih, ki zadevajo vzgojo in izobraževanje. Namen revije je spodbujati objavo znanstvenoraziskovalnih člankov. Revija za elementarno izobraževanje izhaja štirikrat letno. V njej so objavljeni prispevki v slovenskem ali angleškem jeziku oz. nemškem jeziku.

Prispevke pošljite na naslov uredništva ali po e-pošti na naslov: rei.pef@um.si

Journal of Elementary Education

Editor-in-Chief:	prof. Matjaž Duh, PhD (University of Maribor, Faculty of Education, Slovenia)
Editor for Social Sciences:	assoc. prof. Silva Bratož, PhD (University of Primorska, Faculty of Education, Slovenia)
Editor for Humanities:	assoc. prof. Sonja Starc, PhD (University of Primorska, Faculty of Education, Slovenia)
Editor for Nature and Information Sciences:	assist. prof. Tomaž Bratina, PhD (University of Maribor, Faculty of Education, Slovenia)
Technical Editors:	assist. prof. Jerneja Herzog, PhD (University of Maribor, Faculty of Education, Slovenia) Jan Perša (University of Maribor)

INTERNATIONAL EDITORIAL BOARD

Renate Seebauer, PhD (University College of Teacher Education, Vienna, Austria), Lígita Stramkale, PhD (University of Latvia, Faculty of Education, Psychology and Art, Riga, Latvia), Herbert Zoglowek, PhD (University of Tromsø, Norwegian Arctic University, Alta, Norway), Maria Aleksandrovich, PhD (Pomeranian University in Slupsk, Faculty of Social Science, Slupsk, Poland), Nevenka Tatković, PhD (Juraj Dobrila University of Pula, Faculty of Educational Sciences, Pula, Croatia), Grozdanka Gojkov, PhD (University of Belgrade, Teacher Education Faculty, Belgrade, Serbia), Jelena Prtljaga, PhD (Preschool Teacher Training College »Mihailo Palov«, Vršac, Serbia), Jürgen Kühnis, PhD, (The Schwyz University of Teacher Education, Goldau, Switzerland), Marie Fulková, PhD (Charles University, Faculty of Education, Prague, Czech Republic), Věra Janíková, PhD (Masaryk University, Faculty of Education, Brno, Czech Republic), Oliver Holz, PhD (Faculty of Economics and Business, KU Leuven, Belgium, Ljubica Marjanović Umek, PhD (University of Ljubljana, Faculty of Arts, Ljubljana, Slovenia) Janez Vogrinc, PhD (University of Ljubljana, Faculty of Education, Ljubljana, Slovenia), Milena Valenčič Zuljan, PhD (University of Ljubljana, Faculty of Education, Ljubljana, Slovenia), Mateja Pšunder, PhD (University of Maribor, Faculty of Arts, Maribor, Slovenia), Majda Schmidt Krajnc, PhD (University of Maribor, Faculty of Education, Maribor, Slovenia), Alenka Lipovec, PhD (University of Maribor, Faculty of Education, Maribor, Slovenia), Sonja Rutar, PhD (University of Primorska, Faculty of Education, Koper, Slovenia) Tina Štemberger, PhD (University of Primorska, Faculty of Education, Koper, Slovenia)

EDITORIAL OFFICE ADDRESS

Journal of Elementary Education, Editorial Board of Journal of Elementary Education
Koroška cesta 160, SI-2000 Maribor, Slovenija, e-pošta: rei.pef@um.si, <http://rei.um.si>

PUBLISHED BY

University of Maribor Press
Slomškov trg 15, 2000 Maribor, Slovenia
e-mail: zalozba@um.si, <http://press.um.si/>, <http://journals.um.si/>

Articles appearing in this journal are abstracted and indexed in: SCOPUS (Elsevier Bibliographic Databases), DOAJ, ERIH PLUS, EBSCO (EBSCOhostweb), Ulrich's Periodicals Directory, IBZ (Internationale Bibliographie der Zeitschriftenliteratur), Proquest, dLib.si, DKUM, COBISS (Co-operative Online Bibliographic System and Services).

Journal of Elementary Education is a peer-reviewed journal, open access journal that publishes scientific articles primarily but not limited to the area of elementary school education. JEE is published four times yearly and accepts articles in Slovene, English and German. JEE is published by the University Press University of Maribor with cooperate Faculty of Education University of Maribor, Faculty of Education University of Primorska and Charles University, Faculty of Education, Prague.

Articles may be sent electronically to: rei.pef@um.si

Kazalo / Table of Contents

Prispevki / Articles

- Using learning objectives when teaching in Czech primary schools - fact or fiction?** 229
Je uporaba učnih ciljev pri poučevanju v čeških osnovnih šolah dejstvo ali fikcija?
Jana Stará & Karel Starý
- Metrical Characteristics of the Childfit Battery of Tests for Measuring Motor Achievements in Preschool Children** 249
Merske značilnosti baterije testov Childfit za merjenje motoričnih dosežkov predšolskih otrok
Vilko Petrić
- Učinki metode Tomatis na glasbeno učenje šolskih otrok** 265
The Effects of the Tomatis Method on Music Learning Among School Children
Katarina Zadnik
- Extensive Reading and Changes to Reading Motivation in EFL Among Slovene Primary School Pupils** 291
Ekstenzivno branje in spremembe v bralni motivaciji v angleščini kot tujem jeziku pri slovenskih osnovnošolcih
Anja Pirih
- Mobile Phones and Social Behavior among Millennials — future teachers** 315
Uporaba mobilnih telefonov in socialni odnosi Milenijcev bodočih učiteljev
Tomaž Bratina
- Temperament predšolskih otrok v povezavi z njihovim socialnim vedenjem** 331
Temperaments of Preschool Children Relating to Their Social Behavior
Tjaša Rola & Karin Bakračević

USING LEARNING OBJECTIVES WHEN TEACHING IN CZECH PRIMARY SCHOOLS - FACT OR FICTION?

JANA STARÁ¹ & KAREL STARÝ¹

Potrjeno/Accepted
13. 11. 2019

¹ Charles University, Faculty of Education, Czech Republik

Objavljeno/Published
9. 12. 2019

KORESPONDENČNI AVTOR/CORRESPONDING AUTHOR
jana.stara@ped.cuni.cz

Keywords:

learning objectives,
primary education,
social studies, formative
assessment, feedback

Ključne besede:

učni cilji, osnovnošolska
vzgoja in izobraževanje,
družboslovje,
formativno ocenjevanje,
povratne informacije

UDK/UDC

373.3.091.2(437.3)

Abstract/Povzetek The paper presents the findings of a multiple case study exploring the way primary school teachers work with learning objectives in social studies teaching. The study has shown that learning objectives do not occur in an explicit form in the Czech primary school teaching. While observing teaching and learning, implicit objectives did emerge – in the beginnings of lessons, during the lesson in the process of solving learning tasks, and most of all, in the evaluation processes including the final reflection. In many lessons, there were differences between the learning objectives, teaching methods and evaluation of pupils' learning.

Je uporaba učnih ciljev pri poučevanju v čeških osnovnih šolah dejstvo ali fikcija?

Članek predstavlja večstransko študijo primera, ki proučuje način, kako učitelji v osnovni šoli pri poučevanju družboslovnih predmetov delajo z učnimi cilji. Študija je pokazala, da se pri poučevanju v češki osnovni šoli učni cilji ne pojavljajo v eksplicitni obliki. Pri opazovanju pouka so se na začetku ure, med uro v postopku reševanja učnih nalog in najbolj v procesih evalvacije, vključno s končno refleksijo, pokazali implicitni cilji. Pri številnih urah so bile prisotne razlike med učnimi cilji, metodami poučevanja in evalvacijo učenja učencev.

Pupils' understanding of what they are supposed to learn and where the teaching activities are directed is generally considered one of the key prerequisites of quality learning, and the means by which they will know that they have a good grasp of the intended knowledge and skills (Bloom, Hastings & Madaus, 1971; Marzano & Kendall, 2008)

We were interested in how Czech teachers set learning objectives and how they work with them in class (see also Stará & Starý, 2018). We believe that the Czech education system has not yet been sufficiently empirically studied and that research with such an aim could yield useful knowledge to be used in the initial and further training for teachers. Based on our preliminary analysis of didactic materials used in teacher training by us and our colleagues from Faculties of Education in the Czech Republic, we note that in the Czech environment, the findings of influential international theories about setting objectives, aims and objectives are generally applied (Anderson & Krathwohl, 2001; Marzano & Kendall, 2007). It has not yet been studied how these approaches suit Czech teachers.

The main research method of our study was lesson observation, because in our opinion, it is necessary to know the reality of working with learning objectives in schools. This knowledge can later help to plan innovations in the education of teachers and their subsequent support, so that these can be based on the conditions and needs of practice and are therefore acknowledged as acceptable by the participants.

In this paper, we focus on primary school teachers and their teaching of social studies. Social studies in primary education (ISCED 1) are taught from the first to third grades in the integrated subject "Prvouka" and in the fourth and fifth grades, in the subject "Vlastivěda". "Prvouka" is devoted to both science education and social studies education. The hourly allowance for both components of this subject is usually two hours a week. In social studies at this stage of education, pupils learn to know the place where they live, to understand the roles of family members and the relationships between them, to have experience of cooperation with their classmates, to compare past and present, to use time specifications etc. "Vlastivěda" is a subject specific to social studies education. It is usually taught 2 or

3 hours a week and is dedicated to basic knowledge in the fields of geography and history, economics, civic education and cultural studies.

The motivation for the focus on primary social studies was that some curricular areas have a clear hierarchical structure, e.g. teaching mathematics or foreign languages, while in social studies, it is a broad horizontal arrangement. In social studies there are individual thematic units, more or less independent, and the relations between them are far from obvious and clear as in the subjects listed above. If the structure of mathematics as a science is similar all around the world, the concept of social studies is strongly culturally based. Working with learning objectives is therefore very important here because it gives a framework and meaning to the school curriculum. Thus, when setting learning objectives in social studies, the teachers have more freedom, which may be an advantage in one way, but a disadvantage in another. We believe that teachers need support when choosing appropriate learning objectives in social studies more urgently than in other parts of the curriculum (Levstik & Barton, 2011). We also followed on from the fact that in previous studies we noticed considerable variability not only among the learning objectives but also among the teachers' approaches to teaching social studies (Stará & Krčmářová, 2014; Stará & Starý, 2017).

Theoretical foundation

The aim of setting learning objectives in teaching is to give the learning process of pupils a clearer structure. If the learning objectives are to help pupils and fulfil the expected role, then pupils need to understand and identify with these. The objectives should therefore not be too narrowly defined, because then there is a risk of too great a focus on the learning objective, and in extreme cases it can have a negative effect such as "learning for the tests" (Marzano et al., 2001). The opposite extreme occurs when the objectives are too general. Adequate flexibility in constructing learning objectives is also important in order to provide pupils enough space for personalization, i.e. adapting the learning objectives to their needs and interests (Bandura & Schunk, 1981; Anderson & Krathwohl, 2001). One of the major risks is the unilateral focus of the learning objectives on cognitive knowledge

and the neglect of affective and psychomotor objectives, the significance of which becomes increasingly important in the long run (Marzano & Kendall, 2007).

Providing feedback is essentially connected to setting learning objectives because if it is not clear to the pupils what they are aiming for, they are unlikely to understand any information about their progress. Continuous feedback is a key element of formative assessment (William, 2011), and the positive effects of feedback on the learning process have been unequivocally demonstrated by research (Scheerens & Bosker, 1997; Torrance & Pryor, 2001; Chappuis, 2005; Marshall, 2011; Shepard et al., 2012). Setting learning objectives and giving feedback are mutually connected. Quality feedback cannot be provided without well-formulated learning objectives, and if the setting of objectives is not followed by giving feedback, the importance of learning objectives largely loses meaning (Hattie & Timperley, 2007; Chappuis & Chappuis, 2007; Cauley & McMillan, 2009). In addition, we do not see feedback as an activity belonging exclusively to the teacher. Previously, Wiggins (1993) has proved that pupils are able to effectively evaluate their peers' as well as their own progress in learning, and a clear emphasis on the formulation of learning objectives can provide good support for that (Clarke, 2005; Sebba et al., 2008; McTighe & O'Connor, 2005).

Methodology of the research

Aims of the research and research questions

The general aim of the research was to describe the way teachers think about learning objectives, what objectives they set in teaching, how they communicate these to the pupils and how they revisit these objectives in lessons. The research question was formulated as follows: *How do teachers in ISCED 1 level social studies work with learning objectives?*

Research methods

Given the aim of the essay, we decided to choose a qualitative research design. A case study was chosen as the research strategy, especially because it strives for a complex understanding of the studied phenomenon in a natural environment (Yin, 2009). According to Yin's classification, this is an exploratory case study, since the aim was not only to describe the studied phenomenon based on how it appears in the observation, but also, through in-depth interviews, to obtain data on how teachers and pupils understand the phenomenon (Yin, 2009). Data analysis thus led to the search for "predicted causal relationships".

Cases and their selection

Individual cases for us were the different approaches by teachers to working with learning objectives in their lessons. We worked on the theoretical assumption that the approach to teaching is relatively consistent for the teachers (Fenstermacher & Soltis, 2008).

We approached directors of our University faculty schools for primary education (ISCED 1) and selected teachers who suited the need to assemble a sufficiently diverse composition of research participants. The participants in the research were 10 primary school teachers. The teachers differed in the length of their practice, their work experience and the grade in which they worked (see Table 1).

Table 1: Characteristics of the teachers included in the study

Name of the teacher	Abbr.		Grade (taught)	Practice (number of years)	Master's Degree in teachers education
Lucy	L	A town with more than 1,000,000 inhabitants, a residential area	2.	15	yes
Sara	S	A town with more than 1,000,000 inhabitants, a residential area	3.	2	no
Eve	E	A town with more than 1,000,000 inhabitants, a residential area	5.	5	yes
Patricia	P	A town with more than 1,000,000 inhabitants, a housing estate	2.	12	yes
Bela	B	A town with more than 1,000,000 inhabitants, a housing estate	5.	15	yes
Cecilia	C	Satellite city	5.	12	yes
Fany	F	Satellite city	3.	12	yes
Jane	J	A town with less than 10,000 inhabitants	4.	7	yes
Susy	S	A town with less than 10,000 inhabitants	4.	10	yes
Mary	M	A town with less than 10,000 inhabitants	3.	3	yes

Methods and procedures of data collection

In order to comprehensively map out the issue of assessment at primary school, we used several methods of data collection, and we tried to obtain data “first-hand” in the field (see Bassey, 1999), i.e. in the classroom.

Data collection in this research consisted of several phases and methods of data collection:

- a) direct observation of pupils and teachers in classrooms using observation sheets, field notes, or audio and video recordings;
- b) in-depth, semi-structured individual interviews with the teachers;

c) content analysis of learning artefacts (e.g. pupils' notebooks, pupils' presentations, notes on the blackboard, didactic tests, self-assessment questionnaires or teacher's evaluation records).

Observation

Observation was always the first stage of data collection at every school. The teachers were asked to carry out their lessons in the usual manner and were told that the reason for our observation was our interest in teaching quality. The purpose of the observation was to record and describe all the ways of working with learning objectives that occur in the lesson. Since it was not always clear from the beginning whether the question asked, the outlined learning task, the situation in the classroom, etc. had something to do with the phenomena we wanted to observe, it was a wide-ranging observation – we tried to record on our observation sheets all of the teacher's and pupils' actions, the different activities, and we made notes on the class atmosphere, classroom space, etc. Lesson observation was at first descriptive, and after finishing the first series of observations, we analysed the collected data. In the process of reflecting on the data analysis, we asked questions about the structure, relationships and organization of the data. The second series of observations was more specialized. Video footage from this series of observations then allowed us to focus our observations on specific phenomena (e.g. content of the evaluating statements in peer assessment and self-assessment; specific wording of teachers when ending a lesson etc.). We observed 3-5 lessons for each teacher.

In the second phase of observation, we focused primarily on the way the teacher communicates to the pupils the learning objectives and content of the lesson, whether she comes back to the objectives during the lesson, and by its end, how she communicates the criteria for working on tasks and how she works with the criteria after the task was finished and evaluated, how the individual parts of the lesson are related to the established learning objective, which activities have an evaluative and feedback function and how these take place.

Gathering artefacts

Important products of pupils which corresponded with the main research question were identified during the observations, and we gathered and copied these—especially written notes, diagrams and pictures made by pupils and teachers. All instructional artefacts that were connected to the observation protocol were analysed altogether.

Interviews with the teachers

Another method we used was the semi-structured interview based on prepared topics and questions. The interviewer conducted the interview using a prepared scheme, but also referred to situations from the observed lessons. The interviews were conducted as standard, face-to-face sessions, lasting from 20 to 40 minutes. Feedback from the observed lessons and questions that arose were discussed with the teachers immediately after the class. These shorter interviews were not recorded on the Dictaphone; they took place in the corridors, during breaks, etc. However, they all later became part of the field notes.

Analysis of the data

Data analysis was carried out in the following steps:

- a) Systematization of data files and data transcription

All the data had been systematically saved and backed up. This way records of the observed lessons were available in photographs of notes on blackboards, examples of students' work, teachers' preparation for the lessons, field notes, etc. From those classes in which audio or video was taken at the same time, we also transcribed selected parts of lessons that we found crucial for answering the research question.

b) Data coding and categorization

A MAXQDA software program for qualitative analysis of data was used to encode, categorize and conceptualize data from the observations, and we used research procedures inspired by a grounded-theory approach. We carried out open coding as a first data organizer. So, we identified the units of meaning in the data and first named them with codes; then the codes were renamed, specified, merged, etc.

More general categories were created through the ongoing code hierarchization. The result was a coding system that was used for all the data that was obtained during the field work. The coding system served us mainly for orientation in large amounts of data.

The coding was followed by analysis and interpretation of each individual case (descriptive approach); then “cross-case” analysis was used (Yin, 2009, p. 156) to identify teachers’ approaches to learning objectives across cases, and to describe approaches that differed. Given the scope of this article, we cannot describe individual cases here; however, the resulting data from the cross-case analyses are presented in this article.

Research results

In the text, we will cite various data extracts, which will always be indicated by an abbreviation denoting the case, method of data collection and source of the data. Since individual cases are represented by individual teachers, the first letter will be the abbreviation of their name (see Table 1), the next letter indicates whether it is an interview (I), observation (O) or learning artefact/material (M).

Establishing the learning objectives and introducing them to the pupils

In our research, we did not really encounter a teacher communicating the learning objectives to the pupils in the sense of expected knowledge and skills. Two teachers gave relatively specific information about the intention of the lesson in some of their lessons, e.g.:

T: *What do these pictures have in common?*

P: *That they are printed.*

P: *That they help.*

T: *It really is true that in all these pictures, there is somebody helping the others. Today we will be talking about mutual help, about the perception of others. I would like you to try to perceive each other and for you to be able to think about how to help one another...* (SO)

It is clear from the interviews with the teachers that the term 'objective' is not unfamiliar to them, and they understand its meaning. They even admitted that objectives might be useful: *that I can just check off, or not, and the children too, of course it's clearer for them the more clearly they see what they are supposed to do, that way it's easier that they know: I'm done, I'm not done (...) the more clearly, the more specifically you tell them, the better it is then checked* (CI); they even showed a certain guilt about not having formulated learning objectives, or rather that they did not communicate these to the pupils: *well, I don't always set them, I admit that* (CI).

It is clear from the interviews that the teachers think about the objectives while planning the lesson and consider the needs and abilities of the pupils: *I ask myself, (...) where the average pupil should get to, and that's basically the goal* (FI). When choosing objectives, they refer to curriculum materials or textbooks: *I always choose from every chapter in the textbook what I want them to take away, to remember. What I think is important for them in the fifth grade. (...) Some minimal information content which I want them to remember* (EI). It seems that teachers usually think about learning objectives and are well aware of them, but they do not feel the need to write these down, e.g. in lesson preparation, nor to communicate them to pupils.

Although the lesson objectives were not communicated in the teaching we observed, in most lessons we noted that the teachers did communicate the topic of the lessons to the pupils and often even the methods and procedures of work: *Today we will deal with the Hussite wars. You will teach one another through group work.* (EO); *I don't tell them exactly the goals but more like the topic as such* (FI); *we always say what we will be doing that day in that subject, but I don't really formulate it exactly like, that I would say like, today I want you to learn this* (PI).

In some cases, the teachers deliberately do not communicate the objective and the content of the lesson to the pupils in order to stimulate curiosity and interest. They prepare various activities for the pupils, which end in revealing the topic, and this occurs at various phases of the lesson:

Thanks to bingo, you could find out what today's lesson will be about. What might we do now? (BO); What we will be doing today is a secret for now. I hope you will find out yourself. (BO).

Some of the teachers use a 'morning letter' to introduce pupils to the lesson content and the organization of the school day. Most of the letters are brief, usually refer only to the topics of lessons and do not inform the pupils about expected learning outcomes. Morning letters are usually displayed somewhere visible for the pupils throughout the day, so they serve as 'advanced organizers' (Marzano et al., 2001).

How learning objectives appear in lesson activities

As in the beginning of lessons, the learning objectives remain hidden even in the course of lessons; however, this does not mean that they are not present.

Since the specific objective of the lesson was usually not explicitly communicated, we can deduce what learning objectives the teachers followed only from the content of learning tasks used in the class. We learn about the topic of the lesson from the teachers' communication to the pupils and from their plans for the lesson (if the teachers do these), where the topic is often stated. None of the plans we acquired during fieldwork included clear learning objectives.

It is apparent from some of the lessons that although teachers do not tell pupils the specific objective of the lesson, they have it prepared and thought-out and give pupils learning tasks that are in line with their intentions. A single example will suffice: teacher Bela, who did not express the learning objectives in her lesson plans but wrote in notes such as: *Show how they got to it! Find the exact sentences that prove it (BM)*. From observation of that particular lesson, it became apparent that the teacher had the learning objective in mind and strove to ensure that all pupils achieved that skill.

Another example of connection between the learning objective (The pupil will give reasons why the invention was important), learning tasks and continuous assessment emerges from the dialogue of a teacher with a group of pupils:

Situation: Patricia is walking through the class offering support for the pupils to finish the task. The pupils sit in 'nests', and sometimes the teacher communicates with the group of pupils:

T: Well, write there why it was an important invention.

P: I'm glad that the hair dryer was invented.

T: Emma, you didn't write why you're glad, why it was good that it was invented... Write that down. Robin, you didn't write when it was invented... Yes, but you didn't write why it was an invention and why it was good...

P: I don't know why I'm glad that the Cadillac was invented...

P: We have a Skoda.

T: Have you got a Skoda? And are you glad to have it? Why?

P: So we can go on trips.

T: Well you can write it here that it's good that people could drive around and go on trips.

P: How should I write it?

T: Write it the way I'm saying it. (BO)

It is obvious that there are teachers who strive to have all pupils attain the learning objectives to the fullest extent possible (comp. mastery learning – Bloom, 1984; Guskey, 2007; Zimmerman & Dibenedetto, 2008).

However, in a greater number of lessons, we noted some tasks that did not directly relate to the learning objective or topic of the lesson or digressed from it significantly.

For example, in one lesson, the teacher told the pupils that they would focus on orientation in a map, but in the end, practicing that skill occupied only 5 minutes. In the remaining time, the pupils dealt with the topic of state symbols or state management. The lesson had an unclear structure (SO). Such lessons do not meet

the need for a clear connection between learning objectives and lesson activities (Marzano & Kendall, 2008).

How learning objectives are reflected in the evaluation process

Although the learning objectives were not explicitly expressed in the observed lessons, as mentioned before, the implicit objectives appear more clearly in evaluation processes than in the lesson activities. This is clearest when using criteria-based assessment, but for example, also when using immediate feedback and in final summaries and reflections.

Through evaluation processes, the teacher should find out whether and to what extent the learning objectives have been met. Evaluation processes should aim to assess what the teacher set as learning objectives for the lesson (e.g. Gavriel, 2013; Shavelson et al., 2008; comp. with concept of embedded assessment – in Shavelson et al. 2008). We can conclude from the analysis of these lessons that there are teachers who purposely point out the link between expected learning objectives and assessment. One of the observed teachers motivates her pupils to study by holding out the prospect of better marks and avoidance of failure: *If you pay attention in class, you will just revise it (knowledge about the Přemyslid princes) and will remember it and you'll get a good grade on the test (CO).*

Probably more suitable is the approach of teacher Eve, whose approach shows the value of the acquired knowledge; she emphasizes that it is self-evident that the pupils “need” to study, and she expects it. She points to the natural consequences of low work commitment and lack of effort and sometimes to the fact that the pupils can discover through the assessment what they have learned and what they should do for better results.

Some of the observed teachers work with certain criteria and the aim of the lesson on their mind and in the context of the currently taught curriculum with varying degrees of success, while others do not work with these concepts at all.

For example, Cecilia regularly puts into practice the speaking exercises from National History and Geography; we then observed in her lessons the use of criteria for task assignment: to create a presentation about John of Luxembourg. The pupils know the criteria in advance and then evaluate their classmates according to the agreed criteria. Lucy does not use criteria-based assessment and her interview showed that she did not understand what task assignment criteria were.

Some teachers sometimes evaluate knowledge or skills other than those that were at the core of the lesson. Most of these are verbal comments, which are not related to the core activities in terms of the studied subject curriculum (mainly National History and Geography), but they also focus on evaluation of so-called ‘soft skills’ or on the assessment of language phenomena. For example, in one pupil’s test, the teacher corrected the spelling mistakes and marked the work with a grade of 1; however, she took no account of incorrect answers from the subject matter perspective and left these uncorrected: e.g. *A plane is marked with brown colour on the map. Highlands are marked with light and dark colours* (SM). Personal and social skills were also inadequately prioritized over subject knowledge and skills in some lessons:

T: Children, you worked very well in class (social studies), who would you praise?

P: Ivan, because he helped me a lot.

T: Great, Ivan then. Who else?

P: Mary, because she is really kind. (FO)

Such assessment certainly contributes to the long-term goal of building a good social atmosphere in the class, but it should also be complemented by an assessment of the knowledge and skills acquired.

How learning objectives emerge at the end of the lesson

Implicit learning objectives are also revealed in the final evaluation, summary or reflection. Four of the observed teachers try to summarize the curriculum and acquired knowledge and skills in most of their lessons:

T: What did we say? Why do we have rules? P: So everything's all right. P: So we could live in peace. P: So there are no injuries, (...) In today's lesson we did (names the activities). We have a rule that we have a break so we can rest, so let's take a break. (SO)

Some final evaluations are more focused on curriculum content, while others are more focused on the development of soft skills or on the level of interest and activity among the pupils.

The lessons often ended with a rapid feedback session, in which pupils expressed their thoughts about the lesson or the extent to which they mastered the curriculum (e.g. showed thumbs up, thumb horizontally or thumbs down). Any deeper discussion of what presented difficulties in the curriculum and what they should do to fix those problems, however, occurred only very rarely in the lessons we observed. In many lessons, the teachers did not do any summaries of or reflections on the lesson; according to them, this was because of the lack of time. Thus, their lessons usually had no clear summary or closure.

The final reflection is a demonstrably important prerequisite for embedding the learned content in the long-term memory of the pupils; for that reason, it is recommended as an important didactic principle (Walberg, 1999; Marzano et al., 2000; Cotton, 2001). In order for the final reflection to be included, the teacher has to manage the time well and adjust the course of the lesson so that there is enough time for reflection.

Discussion and conclusions

The main finding of our study was the fact that we encountered objectives mostly in the implicit form. Only rarely did we note explicit expression of learning objectives. Since the learning objectives remained unexpressed, the greatest research challenge was to identify them based on the indirect indications. Although the learning objectives were not communicated in the lessons, this does not mean that the teachers did not consider them. Even though the depth of thinking about learning objectives differed from one teacher to another, it can be stated that all of them had objectives for their lessons. We noticed differences in the level of

awareness of learning objectives, in the depth of thinking about the content of social studies class, and in the degree to which the teachers worked with objectives in planning for, realization of and reflection on their teaching.

The implicit objectives gradually emerged during analysis of our observations. It transpired at the beginning of lessons when communicating the plan, in the course of lessons while solving learning tasks and especially in evaluation processes, including final reflection. The learning objectives were most clearly evident when using criteria-based assessment.

Research has shown that if objectives, content and evaluation procedures are in agreement, this brings significant positive consequences for pupils' learning. On the other hand, in the case of a discrepancy between the objectives and learning activities, the pupils do not understand why they are doing them, what the purpose is and figuratively speaking, they get lost on their way to knowledge (Pasch et. al.1990).

By analysing the teacher's statements and the pupils' responses, we came to the conclusion that improving work with learning objectives has the potential to bring the pupils greater benefits from learning and to improve their overall education. But how do we improve this work with teachers? How can we encourage teachers to work systematically and to work with learning objectives in the lessons?

We believe that more emphasis in teacher education must be placed on understanding how explicit communication of learning objectives helps pupils in their learning. One way to motivate teachers in this area is through experiences where teachers play the role of pupils. Another possibility is working with best practice video sequences, from which it is clear how both pupils and teachers benefit from having the learning objectives explicitly set and how, at various stages of teaching, pupils and teachers relate to them. As will be mentioned below, more precise aims and outcomes in curriculum documents and textbooks can help significantly in this area.

The concept of working with learning objectives, as conceived in didactic materials used in pre-service teacher training in the Czech Republic, is based on influential international sources (see above) and it has not yet become standard practice in Czech primary schools, according to the research results. We consider it necessary to develop didactic initiatives and teacher education programs to better suit Czech teachers.

In any case, the quality of objectives and ways by which teachers worked with objectives were very diverse, and it seems necessary in this context to individualize support for teachers, which would help them to improve their work by incorporating learning objectives. It seems ideal to include monitoring by trained teachers who focus on didactics and in education courses or programs, as well as instituting internal (school) support for teachers (Hobson et al., 2015, p. 98). We consider it crucial to focus the support of teachers more on subject-specific phenomena (Janík et al., 2013). This is particularly needed in the field of social studies. This field has a relatively indistinct internal hierarchical structure. This was reflected in the discrepancy between learning objectives, lesson content and assessment practices in some lessons, as well as the less complex and preferred subjects of the teachers. Focusing support for teachers on the subject-didactic field is also crucial, especially in primary education. Teachers of primary school pupils teach a broad range of subjects, which places high demands on their subject and didactic knowledge across many disciplines. Of course, they cannot fully meet those demands (Stará & Krčmářová, 2014, p 107), and it could bring positive changes to offer individualized support to primary school teachers in the fields of didactics, which would connect teachers' practical experience and knowledge with a systematic outlook from experts in the field of didactics.

In our opinion, the findings of our research draw attention to the persistent gap between theoretical education of teachers and the practice of teaching in Czech primary schools. During in service training, teachers and future teachers are encouraged to explicitly set learning objectives and communicate these to the pupils, but in practice they more or less fail to do so.

As discussed above, some teachers are able to plan lesson activities and ensure that they are directed to acquiring important knowledge and skills, which the teachers have carefully prepared and thoughtfully selected. However, there are many teachers who are unable or unwilling to devote so much effort and energy to such lesson preparation, while some teachers may lack experience or adequate education. In our view, it would help these teachers to have a clearer definition of aims and outcomes in curriculum documents and/or textbooks (Knecht, Janík et al. 2008) and to mediate the experience of how to plan the lesson based on clear, realistic and meaningful learning objectives. This requirement should build on their experiences as well as their challenges and their strengths. Education should be based on a dialogue between theory and practice; in our opinion, this is the only way that can lead to acceptance and development of theoretical knowledge in the practice of Czech primary schools and thus to improvements in the quality of teaching.

Acknowledgement

The research on whose partial results this article is based was supported by the Czech Science Foundation (Grant number 15-19158S).

References

- Anderson, L. W., & Krathwohl, D. R. (2001). *A Taxonomy for Learning, Teaching and Assessing: A Revision Bloom's Taxonomy of Educational Objectives: Complete Edition*. New York: Longman.
- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, 41(3), pp. 586–598.
- Bassey, M. (1999). *Case Study Research in Educational Settings*. Buckingham, UK: Open University Press.
- Bloom, B. S., Hastings, T. & Madaus G. F. (1971). *Handbook on Formative and Summative Evaluation of Student Learning*. New York: McGraw-Hill.
- Bloom, B. S. (1984). The search for methods of group instruction as effective as one-to-one tutoring. *Educational Leadership*, 41(8), pp. 4–17.
- Cauley, K. M., & McMillan, J. H. (2009). Formative assessment techniques to support student motivation and achievement. *Clearing House*, 83(1), pp. 1–6.
- Chappuis, S., & Chappuis, J. (2007). The best value in formative assessment. *Educational Leadership: Informative Assessment*, 65(4), pp. 14–19.
- Chappuis, J. (2005). Helping students understand assessment. *Educational Leadership*, 63(3), pp. 39–43.
- Clarke, S. (2005). *Formative Assessment in the Secondary Classroom*. London: Hodder Murray.
- Cotton, K. (2001). *Effective Schooling Practices: A research synthesis*. Portland, OR: NREL.
- Fenstermacher, G. D. & Soltis J. F. (2008). *Approaches to Teaching*. New York, NY: Teachers College Press.

- Gavriel, J. (2013). Assessment for learning: A wider (classroom-researched) perspective is important for formative assessment and self-directed learning in general practice. *Education for Primary Care*, 24(2), pp. 93–96.
- Guskey, T. R. (2007). Closing achievement gaps: Revisiting Benjamin S. Bloom's "Learning for mastery". *Journal of Advanced Academics*, 19(1), pp. 8–31.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), pp. 81–112.
- Hobson, A. J., Maxwell, B., Stevens, A., Doyle, K., & Malderez, A. (2015). *Mentoring and Coaching for Teachers in the Further Education and Skills Sector in England*. Available at: <http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-full-report.pdf>.
- Janík, T., et al. (2013). *Kvalita (ve) vzdělávání: obsahové zaměření přístup ke zkoumání a zlepšování výuky*. Brno: Masarykova Univerzita.
- Knecht, P. & Janík, T a kol. (2008). Učebnice z pohledu pedagogického výzkumu. Brno: Paido.
- Levstik, L. S. & Barton, K. C. (2011), *Doing History: Investigation with Children in Elementary and Middle School*, New York: Routledge.
- Marshall, B. (2011). *Testing English. Formative and summative approaches to English assessment*. London: Continuum.
- Marzano, R. J., Gaddy, B. B., & Dean, C. (2000). *What works in classroom instruction?* Suite: McREL.
- Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom Instruction that Works: Research-based strategies for increasing student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Marzano, R. J. & Kendall, J. S. (2007). *The New Taxonomy of Educational Objectives*. Thousand Oaks, CA: Corwin Press.
- Marzano, R. J. & Kendall, J. S. (2008). *Designing and Assessing Educational Objectives: applying the new taxonomy*. Thousand Oaks, CA: Corwin Press.
- McTighe, J., & O'Connor, K. (2005). Seven practices for effective learning. *Educational Leadership*, 63(3), pp. 10–17.
- Pasch, M., Sparks-Langer, G. , Gardner, T. , Starko, A. , & Moody, C. (1990). *Teaching as Decision Making*. New York: Longman.
- Sebba, J., Deakin Crick, R., Ju, G., Lawson, H., & Harlen, W. (2008). *Impact of Self and Peer Assessment on Students in Secondary Schools*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/222258/DCSF-EPPI-05-08.pdf
- Shavelson, R. J., Young, D. B., Ayala, C. C., Brandon, P. R., Furtak, E. M., Ruiz-Primo, M. A., et al. (2008). On the impact of curriculum-embedded formative assessment on learning: A collaboration between curriculum and assessment developers. *Applied Measurement in Education*, 21(4), pp. 295–314.
- Shepard, L. A., Rebello, N. S., Engelhardt, P. V., & Singh, C. (2012). Assessment lessons from K-12 education research: Knowledge representation, learning, and motivation. *2011 Physics Education Research Conference*, pp. 73–76.
- Scheerens, J., & Bosker, R. J. (1997). *The Foundations of Educational Effectiveness*. Oxford: Elsevier Science Ltd.
- Stará, J., & Krčmářová, T. (2014). Užívání nových učebnicových materiálů učiteli 1. stupně ZŠ. *Pedagogická orientace*, (24)1, pp. 77–110.
- Stará, J., & Starý, K. (2018). Výukové cíle v primárním vzdělávání aneb Cesta tam a zase zpátky. *Pedagogika*, (68)2, pp. 107-129.
- Stará, J., & Starý, K. (2017). Studie výuky dějepisného učiva na 1. stupni ZŠ. *Pedagogická orientace*, (27)1, pp. 6–29.
- Starý, K. (2006). *Efektivní výukové strategie*. Praha: UK PedF. Disertační práce.

- Torrance, H., & Pryor, J. (2001). Developing formative assessment in the classroom: Using action research to explore and modify theory. *British Educational Research Journal*, 27(5), 615–631.
- Walberg, H. J. (1999). Productive teaching. In H. C. Waxman & H. J. Walberg (Eds.), *New Directions for Teaching Practice and Research* (pp. 75–104). Berkeley, CA: McCutchen Publishing Corporation.
- Wiggins, G. (1993). Assessment: Authenticity, context, and validity. *Phi Delta Kappan*, 75(3), pp. 200–213.
- William, D. (2011). *Embedded Formative Assessment*. Bloomington, IN: Solution Tree Press.
- Yin, R. K. (2009). *Case Study Research: design and methods*. Los Angeles, CA: Sage Publications.
- Zimmerman, B. J., & Dibenedetto, M. K. (2008). Mastery learning and assessment: Implications for students and teachers in an era of high-stakes testing. *Psychology in The Schools*, 45(3), pp. 206–216.

Authors

Jana Stará, PhD

Assistant professor, Charles University, Faculty of Education, Department of Pre-primary and Primary Education, M. Rettigove, No. 4, 116 39, Praha 1, Czech Republik, e-mail: jana.stara@pedf.cuni.cz

Docentka, Karlova univerza, Pedagoška fakulteta, Oddelek za predšolsko vzgojo in razredni pouk M. Rettigove, No. 4, 116 39, Praga 1, Češka, e-pošta: jana.stara@pedf.cuni.cz

Karel Starý, PhD

Assistant professor, Charles University, Faculty of Education, Institute for Research and Development in Education Myslíkova 7, 110 00, Praha 1, Czech Republic, e-mail: karel.stary@pedf.cuni.cz

Docent, Karlova univerza, Pedagoška fakulteta, Inštitut za raziskave in razvoj v izobraževanju, Myslíkova 7, 110 00, Praga 1, Češka, e-pošta: karel.stary@pedf.cuni.cz

METRICAL CHARACTERISTICS OF THE CHILDFIT BATTERY OF TESTS FOR MEASURING MOTOR ACHIEVEMENTS IN PRESCHOOL CHILDREN

VILKO PETRIĆ

Potrjeno/Accepted
23. 11. 2019

University of Rijeka, Faculty of Teacher Education, Rijeka, Croatia

Objavljeno/Published
9. 12. 2019

KORESPONDENČNI AVTOR/CORRESPONDING AUTHOR
vilko.petric@uniri.hr

Keywords:

childfit tests, motor achievements, validity, reliability, early and preschool age

Ključne besede:

test Childfit, motorični dosežki, veljavnost, zanesljivost, zgodnje obdobje, predšolsko obdobje

UDK/UDC

373.2:796.012

Abstract/Povzetek The aim of this research is to evaluate the *Childfit Battery of Tests* measuring early and preschool children's motor achievements. The test items that determine the content validity were systematically analysed, the test – retest procedure applied and the Pearson's correlation coefficient between two intervals of measurement calculated, all with the aim of determining the test's reliability. All parts of the object of measurement are proportionally present, and the test items are relevant for the same. The correlation of results in two measurement intervals is statistically significant and ranges from 0.91 to 0.94. The Childfit tests satisfy the validity and reliability criteria and are applicable for the measurement of early and preschool children's motor achievements.

Merske značilnosti baterije testov Childfit za merjenje motoričnih dosežkov predšolskih otrok

Cilj te raziskave je evalviranje baterije testov *Childfit Battery of Tests*, ki merijo motorične dosežke mlajših in predšolskih otrok. Postavke testa, ki določajo vsebinsko veljavnost, so bile sistematično analizirane z uporabo postopka testiranja in ponovnega testiranja ter z izračunom Pearsonovega korelacijskega faktorja med dvema intervaloma meritev z namenom ugotoviti zanesljivost testa. Sorazmerno prisotni so vsi deli predmeta merjenja in postavke testa so zanje relevantne. Korelacija rezultatov v dveh intervalih meritev je statistično pomembna in se giblje v razponu 0,91–0,94. Testi *Childfit* zadoščajo kriterijem veljavnosti in zanesljivosti ter so uporabni za merjenje motoričnih dosežkov mlajših in predšolskih otrok.

Introduction

Motor achievements are defined as a combination of motor knowledge and physical fitness applied by an individual in a certain motor situation with the purpose of solving a particular motor challenge (Findak and Prskalo, 2004). Motor knowledge is the level of acquisition of certain motor structures (Findak, 2003). For early and preschool children, motor achievements are usually based on biotic motor knowledge, i.e. on innate movements that children start to perform independently and naturally without no special help (Petrić, 2019). These are natural forms of movement that enable children to master space, obstacles, resistance and the handling of objects, and thus their motor expression in a space. The most usual elements of biotic motor knowledge are crawling, walking, running, jumping, crawling through, climbing, pushing, lifting, carrying, catching, throwing and leading.

On the other hand, physical fitness is defined as the capability of an individual to competently perform daily life tasks, without excessive tiredness and retaining a sufficient quantity of energy to enjoy their free time and deal with sudden emergencies (Cvejić et al., 2013). Physical fitness dimensions relate to sport success and health. When it comes to children, it has to be considered in terms of health; therefore, it is called health fitness. During childhood and adolescence, it is a key indicator of health (Ruiz et al., 2006). Special consideration is given to components important for the optimal health status that enables an individual to perform everyday activities so as to prevent the occurrence of various chronic diseases and premature death. In fact, health fitness relates to the state of physical and physiological components that indicate the level of risk for the development of non-contagious illnesses. Mild and highly intensive activities stimulate certain functional adaptations of all human tissues and organs, advance physical fitness and significantly diminish the occurrence of degenerative and chronic diseases (Artero et al., 2011).

Fitness diagnosis in children is conducted by various batteries of tests. An objective way to measure physical fitness is laboratory testing. However, this is extremely expensive and not practical, especially when it comes to children. Therefore, various batteries of tests have developed over the years, thanks to which cheaper, but valid and reliable field measurements can be conducted.

The physical fitness of early and preschool children has been insufficiently studied, and there is not enough data on the topic. Moreover, there is no data about which tests for measuring fitness are more valid, reliable and informative from the point of view of health for early and preschool children. Ortega et al. (2015) have made an overview of research studies using tests to measure preschool children's physical fitness and checked their (1) reliability, (2) validity and (3) correlation between the results and health. The results were based on 22 identified articles. Most of the studies concentrated on the reliability of fitness tests (n=21.96%), while a very small number focused on validity (0 criterion of correlated validity and 4 (18%) of convergent validity) or on the relation to health outcomes (0 longitudinally and 1 (15%) cross section). Motor fitness, especially balance, was the most frequently studied fitness component, while cardiorespiratory fitness was the least often studied. The authors concluded that the number of papers was too small to be able to define the acceptable criteria and that there was a great need for further inspection of the validity of fitness tests for preschool children and their correlation with health. The authors made a review of findings from cross studies of physical fitness and health in young people.

The authors Ruiz et al. (2011) carried out three systematic overviews dealing with (1) the predictive validity of fitness linked to health, (2) the validity of field test criteria and (3) the reliability of field fitness tests applied to the young. The authors also carried out 11 methodological examinations to determine the validity criterion and the reliability of some field fitness tests for the young. They concluded that the battery of ALFHA fitness tests is valid, reliable, manageable and safe for estimating physical fitness linked to testing of children and adolescents, and it will be used to monitor health on the level of the whole population. The ALFHA battery of tests is extremely useful, but it does not include early and preschool children.

In their review of research, Castro-Pinero et al. (2010) presented the metric characteristics of several field batteries of tests used with children and adolescents. They determined that there were differences in reliability between tests, but to a greater or lesser extent, all the field ones were valid. The problem is that these batteries of tests are meant for school children and adolescents, and there is no generally reliable battery of field tests used to estimate motor knowledge and physical fitness among early and preschool children. Owing to this, the Childfit battery of tests has been constructed. In a very economical and simple way, it will measure the motor achievements of early and preschool children (Petrić, Kostadin, Peić, 2018). It is constructed to encompass their physical fitness and biotic motor knowledge, and in a certain way these are used to estimate the level of basic motor literacy (Petrić, 2019). If the metrical characteristics of the Childfit battery of tests prove acceptable, this research can be exceptionally significant. It would offer a battery of tests applicable to early and preschool children, national and international frameworks would be determined, while the standardization of children's motor achievements, as well as the level of their general motor literacy, would be made possible.

It is therefore the aim of this research to determine the metric characteristics the Childfit battery of tests for early and preschool children, i.e. to determine the validity and reliability of all four tests constructed to measure children's motor achievements in the domain of mastering space, mastering obstacles, mastering resistance and mastering the handling of objects.

Methods

Description of participants

The participants in this study are 122 early and preschool children attending kindergarten in the city of Rijeka. The kindergarten is newly built and well equipped for the educational process. The children were subsequently divided in line with the periods of early and preschool education (according to Petrić, 2019) into nursery (48) and preschool (74) groups. The nursery group has three mixed educational groups, a total of 26 girls and 22 boys with an average chronological age of 2.2. The

preschool group has three mixed educational groups, a total of 41 girls and 33 boys, with an average chronological age of 5.3.

Description of tests

The sample of variables is made by measurement results obtained in four tests constructed by the authors Petrić, Kostadin and Peić (2018), used for the estimation of motor achievements according to instructions given by Findak (2003) and based on various structures of movement that enable the mastering of space, obstacles, resistance and handling of objects (Petrić, 2019). Description of the conduct of the Childfit tests can be found in research conducted by Petrić, Kostadin and Peić (2018). *The first test* is intended to evaluate motor achievement in the domain of mastering space. *The second test* aims at the estimation of motor achievement in the domain of mastering obstacles. *The third test* aims at the estimation of motor achievement in the domain of mastering resistance. The fourth test aims to estimate motor achievement in the domain of mastering the manipulation of objects.

Measurement protocol

The research was conducted as part of the project “*Establishing the system for monitoring physical activities with contemporary technology in institutions of early ages education*”, and fully supported by the University of Rijeka under the project number *uniri-drustv-18-268*. It was approved by the professional board of kindergartens, and the children’s parents were told the details and signed their consent for their children to participate in the study.

In line with the research aim, children were measured twice in all tests, with a fifteen (15) day interval between. Each interval was marked by the research team visiting a certain kindergarten twice. On their first visit, the children in the nursery group were measured, and on the second, the same was done with the preschool group. The tests were carried out in the gyms of the kindergartens. The same measurers were always present at the test, and they described to children and demonstrated how a certain test had to be done. In each interval, the children repeated each test

three times, while the final value was the the best of the three attempts. The study was conducted from 25th May to 10th June 2019.

Statistical data analysis

All data were processed and analysed in the programme STATISTIKA 12.5 (StatSoft, Inc., Tulsa, OK, USA). Basic descriptive parameters were calculated for each test: arithmetic mean and standard deviation. The contents, i.e. elements from which tests were constructed, were systematically analysed to determine their content value. Then the test – retest method was applied and the Pearson correlation coefficient between two measurement intervals was calculated to determine the test reliability. The statistical level of significance was tested with an error of $p < 0.05\%$.

Results

Childfit tests have been constructed to measure motor achievement in the domain of mastering space, mastering obstacles, mastering resistance and mastering the handling of objects. The systematic analysis of the test contents shows that they are constructed in such a way that to perform them, it is necessary to have a certain level of motor knowledge that by its structure, belongs to a certain domain of motor skills. To successfully perform the space test, children must be able to walk or run, and when it comes to motor abilities, at least a minimum level of coordination, balance, speed, agility and precision is necessary.

To perform the obstacle test, the motor knowledge the child applies comprises depth and drop jumps, while the motor abilities used are coordination, explosive power, like the vertical jump, and speed.

The key motor knowledge necessary to perform the resistance test is moving in a push-up position with arms front, so that the child, for the duration of the test, uses the power of the arms and shoulders to master the load of a larger part of his/her mass.

In the end, the motor knowledge necessary for successful performance of the manipulation test is rolling a ball on the ground using both arms to direct it, while the minimal motor abilities needed are coordination, power, agility and speed.

Table 1. gives the percentages and standard deviation of results on the motor achievement tests of nursery and kindergarten children. Both groups of children achieved similar results, which means that they needed the least time to successfully perform motor challenges in the space test, then obstacles and then resistance and manipulation. The kindergarten group, as expected, given their chronological age, achieved better average results on all tests compared to the nursery group. The greatest difference—an average of 5.4 seconds— was achieved in the manipulation test, the least—2.7 seconds—in the obstacle test. When the deviations (standard deviation) from average results are considered, it can be seen (Table 1.) that they are much smaller in the kindergarten group of children. The kindergarten group is more homogeneous in their motor achievements than the nursery group. The highest deviation is present in the manipulation test, the lowest in the space test.

Table 1. Basic descriptive parameters of results (seconds) on tests during the first measurement

TEST NAME	NURSERY (M±SD)	KINDERGARTEN (M±SD)
Space test	7.43 ± 2.41	4.46 ± 0.38
Obstacle test	9.21 ± 2.91	7.13 ± 1.77
Resistance test	11.44 ± 4.34	8.64 ± 1.89
Manipulation test	17.11 ± 13.17	12.7 ± 3.01

(M – mean, SD – standard deviation)

The results of the second measurement interval with the *Childfit battery of tests* are given in Table 2. Both groups achieved the best results in the space test, then obstacles and resistance, while on average, they needed the most time (seconds) to successfully perform the manipulation test. The highest average difference (5.44 seconds) between the nursery and kindergarten group was achieved in the manipulation test, while the smallest (2.65 seconds) appeared in the resistance test. The repeated measurement also showed a difference in average deviations (standard deviation) within the nursery group. Table 2. shows that the minimum average deviation in kindergarten children was achieved in the obstacle test, while the

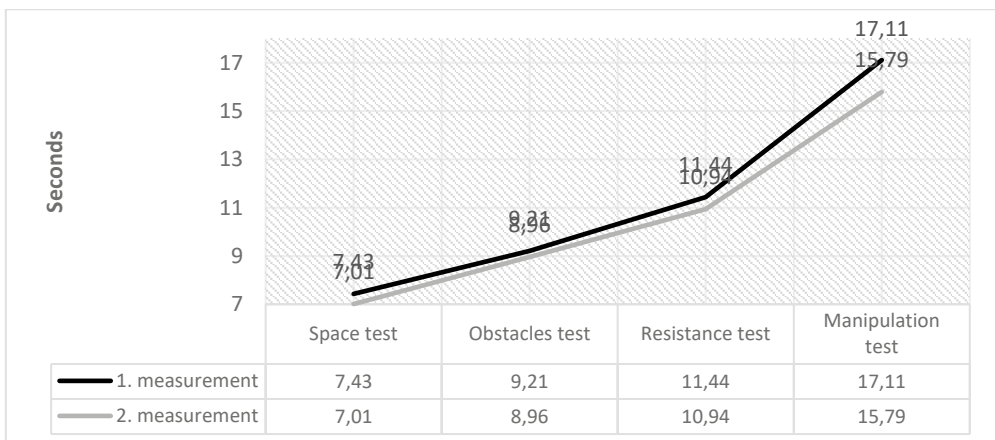
highest remained the same, namely, the manipulation test. In general, the deviation was somewhat smaller for both groups, which means that both groups became more homogeneous in their motor achievements after the first measurement.

Table 2. Basic descriptive parameters of results (seconds) at tests during the second measurement

TEST NAME	NURSERY (M±SD)	KINDERGARTEN (M±SD)
Space test	7.01 ± 2.73	4.24 ± 0.29
Obstacle test	8.96 ± 2.39	6.87 ± 1.63
Resistance test	10.94 ± 4.15	8.29 ± 2.06
Manipulation test	15.79 ± 11.66	10.35 ± 2.88

(M – mean, SD – standard deviation)

Graph 1. presents the comparison of average results for the nursery group of children on all measurement tests. When considering both measurements, the children achieved the best results in the space and obstacle tests, while the poorest results were achieved in resistance and manipulation tests. The results were better after the second measurement compared to the first one. The highest average improvement of 1.32 seconds occurred on the manipulation test, and 0.5 seconds in the resistance test.



Graph 1. Comparison of average results in the nursery group after the first and second measurement

Graph 2. presents the comparison of average results in the kindergarten group on all measured tests. Similar to the nursery group, kindergarten children, when both measurements are analysed, achieved the best average results on the space and obstacle tests, while the worst were achieved in the resistance and manipulation tests. They also achieved better results on all tests in the second measurement than in the first. The highest average improvement of 2.35 seconds was achieved in the manipulation test. For the other three tests, their improvement varies from 0.22 to 0.36 seconds.



Graph 2. Comparison of average results in the kindergarten group after the first and second measurement

Table 3. shows the correlation of results between the first and second measurement interval. In the nursery and kindergarten group, the results between the two measurements are statistically significantly ($p < 0.05$) correlated. The correlation (r) for all tests varies from 0.91 to 0.94. The kindergarten group has the lowest correlation of results ($r = 0.91$), achieved in the obstacle and manipulation tests, while the highest ($r = 0.94$) was achieved in the space test. The kindergarten group achieved the highest correlation ($r = 0.93$) among results in the obstacle test.

Table 3. Test correlation coefficients between the first and second measurement

TEST NAME	r – NURSERY	r - KINDERGARTEN
Space test	0.94*	0.91*
Obstacle test	0.91*	0.93*
Resistance test	0.92*	0.91*
Manipulation test	0.91*	0.92*

(* - significance of 0,05%)

Generally speaking, in the nursery and kindergarten group, children achieved the best average results in the space test, and the poorest results were achieved in the manipulation test. The average results of the second measurement result are somewhat better than the first measurement results, in all tests and for both groups, while the greatest improvement was achieved in the manipulation test. The correlation of results from the two measurement intervals is statistically significant, and in all tests it is in the range from 0.91 to 0.94.

Discussion

The content validity of the instrument encompasses the systematic analysis of items (parts) of the measuring instrument. This way of determining their validity is the most adequate for instruments examining knowledge and the level to which the examinees have mastered a certain specific skill (Mejovšek, 2008). Based on the results of the systematic content analysis, it can be derived that the Childfit tests have been constructed to measure motor knowledge and abilities, or the child's specific skills when it comes to mastering space, obstacles, resistance and the handling of objects. In other words, analysis of the sections of the Childfit tests clearly shows that each of them demands a certain type of motor knowledge specific to the domain (space, obstacles, resistance, manipulation) for which it is intended, and a certain level of motor abilities necessary to successfully perform it. Their content validity is corroborated by the methodology of their construction. They have been constructed in line with instructions for the designation of motor achievement tests (according to Findak, 2003). Therefore, the Childfit tests measure what they have been constructed for, since they ensure that all parts of the measurement object are proportionally represented, and that all items of the instrument (tests) are relevant for the measurement object.

The question of how well an instrument measures the characteristic for which it has been constructed leads us to the metrical characteristic of reliability. The test – retest procedure for determining reliability which was applied in this research is characterised by a re-application of the instrument on the same sample of examinees after a specific time interval, and the correlation coefficient is the indicator of its stability (Mejovšek, 2008). The results, i.e. the correlation coefficient between two intervals of measurement, indicate that it is statistically significant, and in all tests it is above 0.91. Thus, in all Childfit tests, the stability of the measurement characteristics over time is manifested. The prescribed correlation coefficient standard for ability tests is at least 0.90 (Mejovšek, 2008), which leads to the conclusion that Childfit tests do constitute a reliable instrument. In former research assessing the manageability, internal consistency, convergent construction validity and reliability of the battery of tests for measuring children's motor abilities, the correlations of the test-retest testing were high, but not in all tests (Fjortoft et al., 2011). Correlation coefficients inside a class for certain test units yielded total results in the range from 0.54 to 0.92. The Childfit tests applied in this study gave somewhat better results.

The average results of the second measurement interval are somewhat better than the first measurement results, in all tests and for both groups. This fact can be considered one of the major drawbacks of the test – retest procedure. Namely, during the second application of the instrument, the participants can remember their first performance of certain motor requirements of the test, so better results can always be expected (Mejovšek, 2008). However, higher results in the second measurement will not influence the height of the correlation if the same differences among examinees recur in the second measurement.

In both groups of children, the best results were achieved in the domain of space and obstacles. This is not surprising, since this knowledge is mostly used by children in their everyday movements and games, while they use mastery of resistance to a lesser extent (for instance, lifting, carrying, hanging, swinging, pushing, etc.), especially when it comes to the knowledge of how to handle an object (for instance, catching, throwing, aiming, leading, etc.). Motor content in the domain of handling of objects is more complex than the ones already mentioned, so in this area,

encouragement to enable the child to master that, develop and improve is especially important (Petrić, 2019). The development of this domain is the least represented in children's everyday life and games, so among other things, by repeating the manipulation test, they formed motor data in the central nervous system which they do not use very often. Today it is known that motor improvement is directly linked to the central nervous system in our bodies (Jensen, 2005), so this fact can partly explain the occurrence of the greatest improvement in the manipulation test.

Petrić et al (2018) used the Childfit tests in their research to evaluate the effects of an integrated programme of physical exercise with nursery children. Results have shown that this programme achieved excellent results in the improvement of children's motor skills. When it comes to statistics, the experimental group achieved results ($p=0.00$) in all variables (space, obstacles, resistance, manipulation) that were significantly better than the control group. The average results obtained by test measurements are somewhat lower than this study's average results. It should nevertheless be taken into consideration that these research participants are children attending a kindergarten that has been a teacher training centre for the Faculty of Teacher Education of the University of Rijeka for eight years, and everyday physical exercise has been established through various kinesiological activities. All of these are based on biotic motor knowledge and conducted by educated preschool teachers in collaboration with the kinesiology professor from the same faculty. This is certainly one reason that children participating in this research achieved better average results.

Childfit tests measure motor achievements in four domains which together make a whole and enable children's motor expression in space (Petrić, 2019). As a corollary, it can be affirmed that these tests estimate a child's general motor literacy. A lack of general motor literacy, which is the base for children's further development and the quality of their lives, is more frequently noticed among nursery and preschool children. Children's motor skills are directly connected to the development of the central nervous system, and a lack of movement in early childhood cannot be recovered later in life (Pišot and Planinšec, 2005). Research indicates that a child's entrance to an educational institution marks the stagnation or even deterioration of their motor skills (Novak et al., 2014), which could also indicate preschool teachers'

limited understanding of the importance of implementing movement in everyday activities. Institutional education, despite contemporary paradigms, still depends on a structure that often neglects the importance of movement for children (Brockman, Jago and Fox, 2010). Children spend a considerable part of their day in early education institutions (Hyndman, Benson and Telford, 2016), so the competences of those professionals who spend time there with them are important, but also their opinion about the importance of movement in educational work. The diagnosis of motor achievements done with Childfit tests can become the basis for planning and programming the educational process by professionals who work with children. The results could serve to highlight the importance of movement, the level of children's motor achievements, or their general motor literacy, and indicate where to direct the educational work when it comes to physical exercise.

Conclusion

Analysis and discussion of the results lead to the conclusion that Childfit tests satisfy the validity and reliability criteria and are applicable for the measurement of early and preschool children's motor achievements. The tests include all domains of movement used by children every day for their motor functioning: mastering space, obstacles, resistance and handling of objects. Besides motor achievements, the Childfit tests estimate the level of children's general motor literacy. However, those results should be treated with caution, given the small number of previous studies.

This research represents a breakthrough in the diagnosis of motor knowledge, fitness and general motor literacy for early and preschool children. Further research projects should be directed toward the determination of result rates at the national and international levels. Thus, insight into standardized results could be gained, which would simplify assessment and comparison in other research studies that apply the Childfit tests and evaluate the effect of the educational work.

The Childfit battery of tests can form the basis for motor diagnosis in early and preschool education. It also diagnoses potential motor deficiencies that can be influenced by physical exercise, while the professional working with the child is thus enabled to completely adapt his or her educational work to their needs.

References

- Artero, E. G., España-Romero, V., Castro-Piñero, J., Ortega, F. B., Suni, J., Castillo-Garzon, MJ., Ruiz, JR. (2011). Reliability of field-based fitness tests in youth. *International Journal of Sports Medicine*, 32(3), pp. 159–69.
- Brockman, R., Jago, R., Fox, K.R. (2010). The contribution of active play to the physical activity of primary school children. *Preventive Medicine*, 51, pp. 144–147.
- Castro-Piñero, J., Artero, E. G., España-Romero, V., Ortega, F. B., Sjostrom, M., Suni, J., et al. (2010). Criterion related validity of field-based fitness tests in youth: A systematic review. *British Journal of Sports Medicine*, 44, pp. 934–943.
- Cvejić, D., Pejović, T., Ostojić, S. (2013). Assessment of physical fitness among children and adolescents. *Physical education and sport*, 11(2): pp. 135–145.
- Findak, V., Prskalo, I. (2004). *Kineziološki leksikon za učitelje*. Petrinja, Visoka učiteljska škola.
- Findak, V. (2003). *Metodika tjelesne i zdravstvene kulture*. Zagreb, Školska knjiga.
- Fjørtoft, I., Pedersen, AV., Sigmundsson, H., Vereijken, B. (2011). Measuring physical fitness in children who are 5 to 12 years old with a test battery that is functional and easy to administer. *Physical Therapy*, 91(7), pp. 1087–95.
- Hyndman, B., Benson, A., Telford, A. (2016). Active play: exploring the influences on children's school playground activities. *American Journal of Play*, 8(3), pp. 325–344.
- Jensen, E. (2005). *Poučavanje s mozgom na umu*. Zagreb: Educa.
- Novak, D., Petric, V., Juracic, D., Rakovac, M. (2014). Trends and Future Visions of Physical Education: Croatian Challenges. In M-K. Chin, C.R. Edginton (Eds.), *Physical education and health – Global Perspectives and Best Practice* (pp. 121–133). Urbana, IL: Sagamore Publishing.
- Ortega, FB., Cadenas-Sánchez, C., Sánchez-Delgado, G., Mora-González, J., Martínez-Téllez, B., Artero, E. G., Castro-Piñero, J., Labayen, I., Chillón, P., Löf, M., Ruiz, J. R. (2015). Systematic review and proposal of a field-based physical fitness-test battery in preschool children: the PREFIT battery. *Sports Medicine*, 45(4), pp. 533–55.
- Petrić, V. (2019). *Kineziološka metodika u ranom i predškolskom odgoju i obrazovanju*. Sveučilište u Rijeci, Učiteljski fakultet.
- Petrić, V., Kostadin, L., Peić, M. (2018). Evaluation of an Integrated Programme of Physical Exercise with Nurse-Aged Children: Impact on Motor Achievements. *Journal of Elementary Education*, 11(3), pp. 189–200.
- Ruiz, JR., Castro-Piñero, J., España-Romero, V., Artero, E. G., Ortega, F. B., Cuenca, M. M., Jimenez-Pavón, D., Chillón, P., Girela-Rejón, M. J., Mora, J., Gutiérrez, A., Suni, J., Sjöström, M., Castillo, M. J. (2011). Field-based fitness assessment in young people: the ALPHA health-related fitness test battery for children and adolescents. *British Journal of Sports Medicine*, 45(6), pp. 518–24.

Author

Vilko Petrić, PhD

University of Rijeka, Faculty of Teacher Education, Sveučilišna avenija 6, 51000 Rijeka, Croatia, e-mail: vilko.petric@uniri.hr

Univerza v Reki, Fakulteta za izobraževanje učiteljev, Sveučilišna avenija 6, 51000 Reka, Hrvatska, e-mail: vilko.petric@uniri.hr

UČINKI METODE TOMATIS NA GLASBENO UČENJE ŠOLSКИH OTROK

KATARINA ZADNIK

Potrjeno/Accepted
2. 10. 2019

Univerza v Ljubljani, Akademija za glasbo

Objavljeno/Published
17. 9. 2019

KORESPONDENČNI AVTOR/CORRESPONDING AUTHOR
romina.plesecgasparic@pef.uni-lj.si

Keywords:

funkcionalna glasbena pismenost, glasbena šola, pozornost, psihomotorično področje, metoda Tomatis

Ključne besede:

attention, functional musical literacy, music school, psychomotor domain, Tomatis method

UDK/UDC

37.091.3:78

Povzetek/Abstract/ Rezultati tujih raziskav, izvedenih med odraslimi in otroki, kažejo pozitivne učinke metode Tomatis pri posameznikih s posebnimi potrebami. Namen kvalitativne raziskave, izvedene na vzorcu treh osnovnošolcev, ki obiskujejo glasbeno šolo, je bil ugotoviti učinke metode Tomatis pri učencih s primanjkljaji na področjih učenja pri individualnem in skupinskem pouku v glasbenem šolstvu. Izhodiščno stanje je izkazalo težave na področjih pozornosti, koncentracije, funkcionalne glasbene pismenosti, tehničnih spretnosti igranja na inštrument. Triangulacija rezultatov izvedene metode Tomatis je pokazala pozitiven napredek na področjih pozornosti, koncentracije, notranje umirjenosti in telesne drže pri igranju na inštrument. Pri enem učencu je izstopal napredek v razvoju glasbene pismenosti.

The Effects of the Tomatis Method on Music Learning Among School Children

Global research, carried out among adults and children, has shown the positive effects of TM on individuals with special needs. The purpose of this qualitative study, conducted on a sample of three elementary school pupils, attending music school, was to determine the effects of TM on pupils with deficits in the areas of learning in individual and group lessons in music school. The initial state showed problems with attention, concentration, functional musical literacy, and technical skill in playing an instrument. The triangulation of results showed positive improvements in attention, concentration, internal calmness, and body posture while playing the instrument. In the case of one pupil, a significant progress was noted in musical literacy.

Uvod

V zadnji dveh desetletjih opažamo vse večji porast učencev s posebnimi potrebami v slovenski vzgojno-izobraževalni sferi. V pedagoški praksi se tako vsakodnevno soočamo z izzivi v procesih poučevanja in učenja v splošnem in glasbenem šolstvu. Inkluzivno izobraževanje zajema vse več učencev s posebnimi potrebami, med njimi pa je v največji meri zastopana skupina učencev s primanjkljaji na posameznih področjih učenja, in sicer z zmernimi in težjimi oblikami specifičnih učnih težav. Leta 1996 je bila z Zakonom o osnovnih šolah uzakonjena pravica in podpora v izobraževanju otrok s posebnimi potrebami. S sprejetjem Zakona o usmerjanju otrok s posebnimi potrebami (ZOUPP, 2000; ZUOPP-1, 2011) pa se je odprla možnost integracije omenjene skupine učencev v redne vzgojno-izobraževalne programe. Učencem s primanjkljaji na posameznih področjih učenja je tako omogočena možnost izobraževanja v okviru rednih programov s prilagojenim izvajanjem in dodatno strokovno pomočjo.

Slovensko glasbeno šolstvo, ki sodi pod okrilje osnovnošolskega izobraževanja, v svojih izhodiščih temelji na principih splošnega šolstva. Delovanje glasbenih šol je urejeno z Zakonom o glasbenih šolah (2000, 2006), ki pri regulaciji delovanja in izvajanja izobraževanja – zaradi svoje vpetosti v mednarodni prostor in članstva v Evropski zvezi glasbenih šol (angl. The European Music School Union – EMU) – povzema in upošteva tudi načela, ki jih opredeljujeta dokumenta Splošna deklaracija človekovih pravic (Weimarska deklaracija) in Konvencija o otrokovih pravicah (OZN). Nacionalni in mednarodni dokumenti izpostavljajo na eni strani glasbo kot vrednoto v celostnem razvoju posameznika in kot vrednoto z vidika možnosti ustvarjalnega izražanja, na drugi strani pa se izpostavlja vrednota enakih možnosti izobraževanja kot temeljna človekova pravica (Peklaj, 2010). Kljub mednarodni naravnosti po spodbujanju vključevanja posameznikov z omenjenimi primanjkljaji v redne programe glasbenega šolstva opažamo, da nacionalni krovni dokument in podzakonski akti ne opredeljujejo oziroma usmerjajo obravnavane skupine otrok v slovenskem glasbenem šolstvu. Ti predvsem urejajo in usmerjajo delo z nadarjenimi in nadpovprečno nadarjenimi učenci. Primerjalna analiza zakonske urejenosti obravnavane skupine učencev med izobraževanjem v osnovni in glasbeni šoli kaže, da Zakon o glasbenih šolah (2000, 2006) ne opredeljuje in ne

obravnava učencev s posebnimi potrebami. V nasprotju s slednjim se v pedagoški praksi glasbenega šolstva kaže vse večja potreba po ustreznih pedagoških pristopih in strategijah poučevanja omenjene skupine učencev. Delujoči učitelji javnih glasbenih šol vse pogosteje opozarjajo – v neformalnih pogovorih ali na strokovnih srečanjih študijskih skupin Zavoda RS za šolstvo – na potrebe po dodatnih in stalnih strokovnih izobraževanjih za to področje. Na omenjeno dejstvo kažejo tudi rezultati prve raziskave na področju specifičnih učnih težav pri predmetu nauk o glasbi v glasbeni šoli (Zadnik, Habe, 2018), ki so pokazali, na vzorcu 42 učiteljev (to je takrat predstavljalo 50 % celotne populacije učiteljev nauka o glasbi), da ima kar 60 % učiteljev vsako leto kakšnega učenca s specifičnimi učnimi težavami. Ugotovili smo, da se učitelji najpogosteje srečujejo z motnjo disleksije (27 %), z motnjo dispraksije in disgrafije (14 %) ter motnjo diskalkulije (10 %). Učitelji so poročali tudi o delu z učenci z motnjami na področju pozornosti in hiperaktivnosti (28 %), ki sicer ne sodijo v skupino specifičnih učnih težav. Dobljeni odgovori so pokazali, da učitelji niso seznanjeni s terminološko diferenciacijo na področju posebnih potreb in da pogosto pod specifične učne težave uvrščajo tudi druge motnje.

V pedagoški praksi glasbenega šolstva so prisotni tudi učenci z motnjami pozornosti ter specifičnimi in drugimi vrstami učnih težav. Težave nastopajo na področju kratkotrajne pozornosti in koncentracije, branja in pisanja glasbenega zapisa in psihomotoričnih spretnosti pri igranju na inštrument. Med temi učenci so tudi tisti, ki prejmejo odločbo o strokovnem mnenju in določenih usmeritvah dela pri Zavodu RS za šolstvo, vendar starši otrok (iz različnih razlogov) o tem ne želijo poročati učiteljem v glasbeni šoli. Ker v glasbenem šolstvu ne delujejo strokovne službe, ki bi nudile podporo učiteljem individualnega in skupinskega pouka, so učitelji prepuščeni samostojnemu prepoznavanju in ustreznemu usmerjanju teh učencev v učnem procesu. V prispevku bomo predstavili projekt, ki je vključeval metodo Tomatis kot eno izmed možnih podpor pri skupini učencev z različnimi učnimi težavami v slovenskem glasbenem šolstvu. Zaradi ugotovljenih pozitivnih učinkov metode Tomatis (Hesse, Balzer, Bachmann, Ferstl, Fritz, Florentina in Schmid, 2002; Plessis, Vercuci in Taljaard, 2009), ki prispevajo h kakovostnemu učenju glasbe, smo s kvalitativnim pristopom multiple študije primera preučevali učinke omenjene metode pri treh učencih z različnimi učnimi primanjkljaji pri inštrumentalnem pouku in skupinskem pouku nauk o glasbi v glasbenem šolstvu.

Preučevali smo morebitne pozitivne učinke metode Tomatis in njeno možno uporabo v slovenskem glasbenem šolstvu, ki bi zapolnila vrzel manjkajočih strokovnih služb v glasbenem šolstvu pri nujenju podpore na področju dela s tovrstno skupino učencev. Zaradi nizkega poznavanja Alfreda A. Tomatisa in njegove metode v slovenskem prostoru bomo v nadaljevanju teoretičnega dela predstavili strokovno delovanje omenjenega avtorja in rezultate nekaterih že izvedenih raziskav učinkov metode Tomatis.

Alfred A. Tomatis in metoda Tomatis

Alfred A. Tomatis (1920–2001), francoski otorinolaringolog in kirurg, je bil rojen v družino glasbenikov. Njegov oče, priznan operni pevec, basist, je nastopal v različnih mestih Francije. Tomatis je bil kot deček prisoten na očetovih predstavah in se tako seznanil s pevskim repertoarjem, tedanjimi pevci in z operno umetnostjo do potankosti (Tomatis, 2005). Doživljanje odrskega zakulisja in odrskega pevskega dogajanja ga je spodbudilo v nadaljnji študij medicine, kasneje pa v specializacijo otorinolaringologije, vede, ki preučuje uho, nos in grlo. Po študiju je poklicno deloval kot foniater v pariški operi, kjer je imel svojo ordinacijo, k njemu pa so prihajali pevci, ki so imeli težave z grlom in glasilkami. Te so pretežno izvirale iz utrujenosti in preobremenjenosti. Utrujenost pevcev ni bila posledica fizičnih dejavnikov, temveč je ta izhajala iz skromne vokalne tehnike in slabega slušnega zaznavanja. Alfred A. Tomatis je menil, da težave slabšega slušnega zaznavanja izhajajo iz poškodb srednjega ušesa. Na temelju lastne medicinske prakse je postavil teorijo, da ima večina oseb, ki ima težave z glasom, v resnici težave s sluhom in zagovarjal, da *glas ne ustvari tistega, kar uho ne sliši* (angl. The voice does not produce what the ear does not hear) (Tomatis, 2005). Tako je razvil napravo *elektronsko uho* (angl. electronic ear), s katero je želel ozdraviti te poškodbe. Naprava je bila namenjena ojačitvi mišic srednjega ušesa, na tak način pa je poslušalec postal bolj senzibilen za frekvence, ki jih ni bil več zmožen zaznati in slišati. V poklicnem življenju se je poleg pevcev in drugih glasbenikov ukvarjal tudi z igralci, s posamezniki z disleksijo, depresijo, shizofrenijo in avtizmom. Po njegovem mnenju naj bi bila večina teh težav posledica travm šibkih socialnih odnosov in slabe komunikacije, to pa naj bi posredno vplivalo na slabše slušno zaznavanje in poslušanje (Tomatis, 2005). Njegovi poskusi z napravo *elektronsko uho*, z vključenimi

različnimi poslušalskimi programi, na pevcih, igralcih in drugih glasbenikih so pokazali dobre rezultate. Udeleženci terapij so po izvedbah poročali, da sta tako učenje kot pomnjenje glasbenih (gledaliških) programov potekala zlahka, poročali so tudi o višji telesni kondiciji. Rezultati so ga spodbudili k uporabi opisane terapije pri otrocih z motnjo pozornosti, pri šolskih otrocih s ciljem hitrejšega napredovanja v razvoju učnih sposobnosti, pri otrocih z izgubo sluha (na fizični ali psihološki ravni), govora in pri otrocih z avtizmom (Campbell, 2004; Tomatis. History, b. d.).

Metoda Tomatis je naravni pristop k nevrosenzorni stimulaciji slušnega organa. Za poslušanje glasbe po metodi Tomatis uporabljamo poseben set slušalk TalksUp, ki vsebuje slušalke in predvajalnik programa. Slušalke nam omogočajo poslušanje glasbe preko slušnega organa (po zraku) in kosti lobanje (zaznavanje zvoka preko vibracij), saj so te s posebnim delom prislonjene na vrh glave. Programi poslušanja so prirejeni tako, da spreminjajo glasbo v realnem času. Izbranim glasbenim primerom so dodani dinamični kontrasti, posebni glasbeni filtri (enkrat so porezane visoke, drugič nizke frekvence ipd.), prav tako pa je posebnost posnetkov t. i. *gating*, to so motnje (šumi, poki) oziroma nepričakovani zvočni vzorci, poslušanje preko desnega, levega ušesa ali obeh ušes, kar spodbuja stalno aktivno delovanje mišic srednjega ušesa, ki sta pripeti na klavdice in stremence in tako skrbita za prenos zvočnih dražljajev v notranje uho (Tomatis, 2005). Cilj tovrstnega poslušanja je aktiviranje možganskih centrov, ki so odgovorni za sluh, motorične, čustvene in kognitivne sposobnosti. Programi poslušanja po metodi Tomatis vključujejo tri vrste glasbe: glasbo W. A. Mozarta, gregorijanski koral in valček. Campbell (2004) navaja, da je Tomatis v svojih raziskavah že v šestdesetih in sedemdesetih letih 20. stoletja začel v svojih raziskavah obravnavati Mozartovo glasbo in dokazal, da poslušanje določenih filtriranih zvokov izboljša slušne in govorne sposobnosti, čustveno zdravje in miselno prožnost. Desetletja kasneje, leta 1993, se je na temelju opravljenih raziskav pod vplivom Mozartove glasbe na kognitivno funkcioniranje prvič pojavil Mozartov učinek, ki kaže pomembne izboljšave pri reševanju prostorsko-časovnih nalog in spremembe nevrofizioloških aktivnosti pri poslušanju Mozartove glasbe (Habe, 2005). Tomatis je trdil, da ima Mozartova glasba širok in uravnotežen frekvenčni spekter, podoben človeškemu glasu. V njej naj bi prevladovale svetloba, skladnost, vedrina in življenjska radost. V Mozartovih delih se glasnost glasbe najpogosteje izmenjuje v razmiku tridesetih sekund, kar ustreza

osnovnemu vzorcu možganskih valov (The Tomatis Method, b. d.). Notranja popolnost Mozartove glasbe, ki se odslikava v jasnosti in enostavnosti, pozitivno deluje na čustveno in fizično stanje. Tako je Tomatis izbral izseke iz Mozartovih simfonij in violinskih koncertov – z bogato prisotnostjo višjih frekvenc – v okviru tempov moderato in allegro (četrtinka = 120 udarcev na minuto), osvobojenih globokih čustvenih doživljanj, ki bi poslušalca vodile v notranji dialog. Vključil je tudi izseke gregorijanskega korala s ciljem umirjenega dihanja in znižanja srčnega utripa. Gregorijanski koral ima energetski in hkrati tudi pomirjevalni učinek, to pa je avtor metode ugotovil, ko je študiral glasbo benediktinskih menihov (Tomatis. History, b. d.). Pozitivni učinki glasbe gregorijanskega korala, temelječe na monofoničnih visokofrekvenčnih tenorskih napevih in naravnem človeškem dihanju, ki ustvarja občutek sproščenosti, so bili potrjeni tudi s kasnejšimi raziskavami (Campbell, 2004). Tomatis je tudi ugotovil, da ritmični tok valčka spodbuja vestibularni sistem, s tem pa se izboljšujejo motorične spretnosti (Tomatis, 2005).

Po terapiji s slušalkami TalksUp sledi terapija z uporabo slušalk Forbrain. Slušalki sta nameščeni na kosti glave pod sencami, mikrofona pa je nameščen pred usti. V mikrofona govorimo, beremo, pojemo in tako poslušamo svoj glas, ki se s pomočjo naprave prenaša preko slušnega organa in kosti glave desetkrat hitreje in z večjo jasnostjo kot samo po zraku. Uporaba slušalk Forbrain poveže možganske živčne celice, ki so bile aktivirane z uporabo slušalk TalksUp, in okrepi sinaptične stike med spodbujenimi nevroni (The Tomatis Method, b. d.). Delo po metodi Tomatis je razdeljeno v tri intenzive, v vsakem od njih pa uporabljamo set slušalk TalksUp in Forbrain. V prvem intenzivu 13 dni poslušamo glasbo s setom slušalk TalksUp (pet dni, dva dni pavze, pet dni, dva dni pavze, tri dni), nato pa štiri tedne uporabljamo slušalko Forbrain. Set Forbrain uporabljamo prvi teden pet minut na dan, drugi teden 10 minut na dan, tretji in četrti teden pa 20 minut na dan. Sledi drugi intenziv, v katerem zopet 13 dni uporabljamo set TalksUp, nato pa uporabljamo Forbrain dva meseca do tri mesece. Zadnji intenziv je izvedbeno enak drugemu. Izvedba intenzivov je razdeljena na štiri stopnje, izvajajo jo lahko samo profesionalci, usposobljeni za določeno stopnjo metode Tomatis. Vsaka od teh stopenj se deli na različne programe. Na prvi stopnji imamo začetni in osnovni program, programe E1A, E2A, E1B in E2B za osebe s čustvenimi težavami, L1 in

L2 za osebe z jezikovnimi težavami ter MA1 in MA2 za osebe s težavami spomina in pozornosti. Vsakega posameznika se pred uporabo metode Tomatis diagnosticira in nato usmeri v ustrezní program (The Tomatis Method, b. d.).

Učinki metode Tomatis na različnih področjih učenja

Pregled in analiza nekaterih izvedenih raziskav v povezavi z metodo Tomatis kaže, da so se avtorji raziskav pretežno usmerjali v preučevanje učinkov omenjene metode na temelju kvalitativnih pristopov raziskav in da so študije primerov obsegale nizko število vzorcev. Raziskave so bile izvedene na nizkih vzorcih splošne populacije in na populaciji oseb s posebnimi potrebami. Avtorji raziskav so preučevali učinke metode Tomatis pri prehodu otrok iz vrtčevskega okolja v osnovnošolsko okolje (Velze, 2016), pri težavah učenja tujega jezika (Tze-Ming Chou, 2012), pri težavah učenja z motnjo dispraksije (Nicoloff, 2004), pri motnjah pozornosti in hiperaktivnosti (angl. Attention Deficit Hyperactivity Disorder – ADHD) (Sacarin, 2013), disleksije (Malak, Mojs, Ziarko, Wiecheć, Sudol in Samborski, 2017) in motnjo avtističnega spektra (AbediKoupaeia, Poushanehb, Mohammadi in Siampour, 2013). Rezultati vseh izvedenih raziskav so pokazali pozitivne učinke metode Tomatis. Pri šestih otrocih iz socialno ogroženih družin v Južni Afriki so preučevali, ali metoda Tomatis podpira razvoj sposobnosti in spretnosti ter socialnih veščin za vstop v osnovno šolo (Velze, 2016). Po izvedenih intenzivih metode Tomatis so opazili napredek v večji čustveni stabilnosti, povečanju motivacije, samostojnosti, zbranosti, sproščenosti, večkratnem socialnem vključevanju, razvoju motoričnih spretnosti in načrtovanju motoričnih aktivnosti.

Pri učenju tujega jezika so udeleženci raziskave, osem študentk Tajvanske fakultete, po izvedenih intenzivih metode Tomatis, izboljšale tekoče branje angleškega jezika, izgovorjavo, naglaševanje besednih poudarkov (Tze-Ming Chou, 2012). Pri 34 otrocih z motnjami avtističnega spektra, starih od 4 leta do 8 let iz Teherana, je metoda Tomatis pozitivno učinkovala na izboljšanje verbalne in neverbalne komunikacije ter socialnih interakcij (AbediKoupaeia idr., 2013). Pozitivni učinki metode Tomatis so se pokazali tudi pri bralnih težavah 78 poljskih otrok z razvojno disleksijo. Po izvedenih intenzivih metode Tomatis so bile opazne izboljšave na

področju pravilnega branja besed, vizualne percepcije in povezav med kratkotrajnim fonološkim in slušnim spominom (Malak idr., 2017).

V poljskih osnovnih šolah so v okviru projekta »*Attention! The way to success*«, ki je potekal od leta 2010 do 2013, na vzorcu 1333 učencev prvega, drugega in tretjega razreda v rednih šolah in šolah s posebnim programom, poskušali ugotoviti učinke metode Tomatis na področjih razvoja učnih, govornih, glasbenih sposobnosti in socialnih veščin. Rezultati longitudinalne raziskave so pokazali, da so učenci eksperimentalne skupine, ki so bili vključeni v metodo Tomatis, v primerjavi s kontrolno skupino napredovali na vseh opazovanih področjih, največji napredek pod vplivom metode Tomatis pa je izstopal na področju razvoja glasbenih sposobnosti (Ratyńska, 2014). Z raziskavo, ki je potekala na Univerzi v Seatlu in je vključevala 25 otrok (15 otrok eksperimentalna skupina, 10 otrok kontrolna skupina) med 7. in 13. letom z motnjami ADHD, so preučevali razumevanje podatkov, govorne sposobnosti, sposobnost branja, pozornost, vedenjske in psihološke zmožnosti (Sacarin, 2013). Ugotovili so, da so otroci eksperimentalne skupine, kjer se je izvajala metoda Tomatis, po izvedenih intenzivih izboljšali govorne sposobnosti, razumevanje podatkov, prepoznali so višjo stopnjo samoiniciativnosti in samoregulacije.

Številne raziskave učinkov metode Tomatis so bile izvedene tudi med odraslimi na univerzitetni ravni izobraževanja, pri študentih. Bonthuys, Botha in Stols (2017) so na vzorcu sedmih južno-afriških študentov 1. letnika dodiplomskega študija (začetniki) ugotavljali učinke metode Tomatis na sposobnost samoregulativnega učenja med študijskim procesom. Ugotovili so, da je izvedena terapija z metodo Tomatis pozitivno učinkovala na vedenjske spremembe in pet področij samoregulativnega učenja. Pri slednjem so izstopali učinki na področju 1) samozavedanja in večje občutljivosti za okolje, 2) koncentracije za učenje, ki se je časovno podaljšala, 3) izražanja lastnih stališč in pripravljenosti sprejemati stališča drugih, 4) samorefleksije lastnega učenja ter 5) kreativnosti in odprtosti.

Učinke metode Tomatis so preučevali tudi na nekaterih področjih glasbenega izobraževanja. Hesse idr. (2002) je pri solopevcih ugotovil (na vzorcu 7 udeležencev, starih 20–30 let), da je večina od njih po izvedenem intenzivu metode Tomatis nekoliko bolj zaznavala slušne dražljaje z levim ušesom, izboljšale so se tudi pevske sposobnosti, predvsem z vidika intonančno čistega petja. Udeleženci so poročali o višji stopnji samozavesti in suverenosti na področju pevske intonacije in napredku na področju muzikalnosti. Plessis idr. (2009) je ugotavljal učinke metode Tomatis pri 13 študentih klavirja na južnoafriški univerzi, od katerih jih je bilo sedem vključenih v eksperimentalno skupino, šest v kontrolno skupino. Samorefleksije udeležencev programa metode Tomatis, ki so bile izražene skozi risanje lastnega razpoloženja udeležencev, so pokazale spremembe na področju višje samozavesti in intenzivnejših občutjih sreče in uspeha. Pri večini študentov eksperimentalne skupine so njihovi učitelji klavirja opazili spremembe predvsem pri samozavesti in umetniški samostojnosti v fazi nastopanja, poleg tega pa je bil napredek opazen tudi pri natančnosti in hitrejšemu učenju novega programa. Večina opisanih raziskav, ki sicer nakazujejo pozitivne učinke metode Tomatis na napredke posameznikov na različnih opazovanih področjih, temelji na tipu kvalitativnega raziskovanja, na nizkem številu vzorcev. Tudi prva raziskava, ki je ugotavljala učinke metode Tomatis pri individualnem inštrumentalnem pouku in pouku nauka o glasbi v slovenskem glasbenem šolstvu, temelji na vzorcu treh učenk. V nadaljevanju bomo predstavili potek raziskave z dobljenimi rezultati in njihovo interpretacijo.

Opredelitev problema in raziskovalna vprašanja

Cilj izvedene študije je bil ugotoviti, ali intenziv metode Tomatis lahko podpira razvoj funkcionalne glasbene pismenosti, psihomotoričnih spretnosti pri igranju na inštrument, poveča pozornost in podaljšajo koncentracijo v učnem procesu individualnega inštrumentalnega in skupinskega pouka nauka o glasbi. Zastavili smo si naslednja raziskovalna vprašanja:

- Kakšni so učinki metode Tomatis na učenčevo pozornost in koncentracijo pri pouku nauka o glasbi in individualnem inštrumentalnem pouku?

- Kakšni so učinki metode Tomatis na razvoj funkcionalne glasbene pismenosti?
- Kakšni so učinki metode Tomatis na razvoj psihomotoričnih spretnosti pri igranju na inštrument?

Metodologija

Raziskavo smo izvedli na temelju kvalitativnega tipa raziskovanja z vključeno multiplo študijo primera. Triangulacija virov podatkov je bila zagotovljena z zunanjimi opazovalci – študenti, učitelji nauka o glasbi in individualnega inštrumentalnega pouka ter starši učencev.

Udeleženci

V vzorec raziskave so bile vključene tri učenke: učenka 2. razreda violončela in nauka o glasbi (8 let), učenka 2. razreda klavirja in nauka o glasbi (9 let) in učenka 1. razreda flavte, 3. razreda klavirja in nauka o glasbi (10 let). Nenaključni vzorec je vključeval 8-letno učenko z izrazitimi težavami na področju branja in uporabe glasbenega zapisa, 9-letno učenko z izrazitimi težavami pri ohranjanju kakovostne telesne drže pri igranju na klavir in 10-letno učenko s psihomotoričnimi težavami pri igranju na klavir in ohranjanju kakovostne telesne drže pri igranju na flavto.

Opis izvedene terapije Tomatis

Projekt *Uporaba metode Alfreda Tomatisa v glasbeni šoli* sta izvedli Akademija za glasbo, Univerza v Ljubljani in zasebna glasbena šola Arsem v Ljubljani v sodelovanju s podjetjem Savitri, glasbeno-pedagoške dejavnosti, pisanje in izdajanje knjig, v okviru javnega razpisa Projektno delo z gospodarstvom in negospodarstvom v lokalnem in regionalnem okolju – Po kreativni poti do znanja 2017/2018 in Operativnega programa za izvajanje Evropske kohezijske politike 2017–2020, ki ga je objavil Javni sklad RS za razvoj kadrov in štipendiranje. Projekt sta sofinancirala Republika Slovenija in Evropska unija iz Evropskega socialnega sklada. V načrtovanje in izvajanje dejavnosti petmesečnega projekta, ki je potekal od marca do julija 2018, so bile vključene tri študentke oddelka glasbene pedagogike in ena

študentka oddelka glasbene umetnosti drugostopenjskega magistrskega študija Akademije za glasbo, Univerza v Ljubljani, pod mentorstvom dveh pedagoških mentorjev (iz Akademije za glasbo Univerze v Ljubljani in zasebne glasbene šole Arsem) in dveh delovnih mentorjev (iz zasebne glasbene šole Arsem in podjetja Savitri).

Uvodni mesec projekta je bil osredinjen na študij metode Tomatis, ki je bil nadgrajen s predavanjem delovne mentorice. Preučevanje tuje literature in raziskav je bilo izhodišče za nadaljnja načrtovanja specifičnih ciljev projekta. Pripravili smo vprašalnike za starše učenk, vključenih v omenjeni projekt, s 30 področji opazovanj ter opazovalne protokole s štirimi področji opazovanj, ki smo jih uporabili pri opazovanju učenk pri pouku inštrumenta in nauka o glasbi. V drugi fazi projekta smo izvedli intenziv metode Tomatis z uporabo TalksUp in Forbrain slušalk. Prva terapija intenziva z uporabo TalksUp slušalk je potekala trinajst delovnih dni po dve uri: 5 dni – 2 dni pavze – 5 dni – 2 dni pavze – 3 dni. Skladno z navodili metode so bile aktivnosti učenk med poslušanjem glasbe povezane s spodbujanjem delovanja desne možganske hemisfere. Tako so učenke med uporabo TalksUp slušalk barvale pobarvanke, risale, igrale *enke*, domine, počivale ipd., medtem ko branje ter uporaba predmetov z zasloni (računalnik, tablični računalnik, mobilni telefon) ni bilo dovoljeno. Druga terapija intenziva, ki je vključevala uporabo slušalk Forbrain, je prav tako potekala na GŠ Arsem. Prvi teden so učenke uporabljale slušalke vse delovne dni po 5 minut, drugi teden po 10 minut ter tretji in četrti teden po 20 minut. Med drugo terapijo intenziva so se učenke glasno medsebojno pogovarjale, glasno brale in pele. Med temi aktivnostmi so poslušale svoj glas preko mikrofona, ki so ga imele nameščenega pred ustmi, glas pa so zaznavale tudi preko vibracij, ki so se prenašale preko kosti senc, kjer so bile nameščene slušalke Forbrain.

Opis merskih instrumentov in zbiranje podatkov

Zbiranje podatkov je potekalo pred začetkom intenziva, med intenzivom in po njem, pri pouku nauka o glasbi in individualnem inštrumentalnem pouku. Pred začetkom izvedbe intenziva metode Tomatis smo ugotavljali izhodiščno stanje treh opazovanih učenk. V vseh treh fazah smo spremljali in vrednotili spremembe na načrtovanih opazovanih področjih: pozornost in koncentracija, razumevanje in

uporaba glasbenega zapisa, razvoj psihomotoričnih spretnosti pri igranju na inštrument. Podatke smo zbirali s predhodno oblikovanimi opazovalnimi protokoli, v obliki dnevniških in anekdotskih zapisov in z anketnimi vprašalniki za starše učencev. Vsaka učenka je bil opazovana pred izvedbo obeh terapij metode Tomatis, nato pa od trikrat do štirikrat v dvomesečnem obdobju izvajanja metode Tomatis. Posamezne učenke so spremljali in opazovali študenti (zunanji opazovalci), učitelji skupinskega in inštrumentalnega pouka ter starši učencev. Pred izvedeno prvo terapijo metode Tomatis in po njej (slušalke TalksUp) so starši učenek izpolnili vprašalnike s tridesetimi področji opazovanj, pri katerih so ovrednotili stopnjo odzivanja svojega otroka na osnovi Likertove lestvice stališč (1–5), kjer je ocena 1 pomenila zelo slabo in 5 odlično. Starši so pred intenzivom metode Tomatis in po njem vrednotili: 1) jasnost govora, 2) kvaliteto branja, 3) kvaliteto poslušanja, 4) kvaliteto izražanja, 5) sodelovanje pri aktivnostih, 6) razumevanje navodil, 7) kvaliteto komunikacije, 8) intuicijo, 9) kreativnost, 10) zbranost, 11) spomin, 12) radovednost, 13) pogum, 14) postavljanje vprašanj, 15) prevzemanje pobude, 16) izražanje svojega mnenja, 17) samostojnost, 18) samoobvladovanje, 19) odgovornost, 20) kvaliteto spanja, 21) potrpežljivost, 22) sproščenost, 23) zaupanje v življenje, 24) pozornost, 25) jasnost mišljenja, 26) samozavest, 27) notranjo umirjenost, 28) vživljanje v sočloveka 29) motoriko gibanja in 30) fino motoriko.

Postopek obdelave podatkov

Po zaključku opazovanj smo dnevniške in anekdotske zapise, zbrane v protokolih opazovanj, analizirali in povzeli sklepne ugotovitve za posameznega učenca, ki so jih podali študenti (zunanji opazovalci) in učitelji skupinskega in individualnega pouka. Primerjali smo izhodiščno stanje posameznega opazovanega učenca s stanjem na opazovanih področjih ob zaključku obeh terapij metode Tomatis. Podatke, pridobljene z anketnimi vprašalniki za starše učencev pred izvedbo prve terapije metode Tomatis s slušalkami TalksUp in po njej, smo primerjali in analizirali morebitne spremembe oziroma odstopanja v stopnji odzivanja učencev na posameznih opazovanih področjih (30).

Rezultati in interpretacija

Rezultati opazovanj pri individualnem instrumentalnem in skupinskem pouku

Iz opisov v tabeli 1 je razbrati, da je učenka v primerjavi z opisanim izhodiščnim stanjem napredovala na vseh opazovanih področjih po izvedenih obeh terapijah metode Tomatis.

Tabela 1: Izhodiščno in končno stanje na opazovanih področjih pri učenki violončela

	Opazovana področja	Izhodiščno stanje	Končno stanje po metodi Tomatis
Učenka violončela (2. r., 8 let)	Pozornost/ koncentracija	Učenka preusmerja pozornost od učnega dela z večkratnimi prekinitvami s pripovedovanjem o vsakodnevnih dogajanjih.	Učenka ohranja pozornost in koncentracijo pri učnem delu, pri načrtovanih dejavnostih aktivno sodeluje, uspešno sledi učiteljevim navodilom.
	Razumevanje in uporaba glasbenega zapisa	Branje not je za učenko naporna in utrudljiva dejavnost, note bere izredno počasi. Tako posveča učitelj več pozornosti učenju igranja skladb po posluhu. Pri igranju po notnem zapisu učitelj pripravi notno gradivo v povečanem formatu (A3) in z obarvanimi notami (z identičnimi barvami strun).	Učenka se dobro orientira v notnem zapisu, bere tekoče in zavestno sledi posameznim delom skladbe.
	Psihomotorične spretnosti	Psihomotorične spretnosti pri igranju na violončelo so ustrezno razvite in ne odstopajo bistveno v pozitivno ali negativno smer.	Viden je napredek pri telesni držbi, drži loka in postavitvi in koordinaciji obeh rok.

Učenka je imela pred izvedbo metode Tomatis težave pri ohranjanju pozornosti in koncentracije, saj je učni proces večkrat prekinjala z vprašanji in pripovedovanjem, ki niso bila povezana z učnim delom. Po izvedenih terapijah smo zaznali višjo stopnjo pozornosti in koncentracije za učno delo, učenka je lažje sledila učiteljevim navodilom in bila aktivna pri izvajanju načrtovanih dejavnosti. O podobnih rezultatih poročajo tudi Bonthuys idr. (2017), ki so na vzorcu sedmih študentov

ugotovili, da je metoda Tomatis pozitivno učinkovala tudi na časovno podaljšanje koncentracije za učenje.

Izhodiščno stanje je izkazalo učenikine napore in počasno branje notnega zapisa, učiteljevo nenehno pomoč pri nakazovanju poteka glasbenega zapisa, vključevanje podpornih strategij povečanega in obarvanega glasbenega zapisa za boljšo orientacijo in sledenje notnemu zapisu. Končno stanje po izvedbi metode Tomatis je odražalo učenikino samostojno sledenje in orientacijo znotraj glasbenega zapisa ter tekoče branje in zavestno uporabo notnega teksta. Tudi Malak idr. (2017) so poročali (na vzorcu 78 poljskih otrok z razvojno disleksijo), da je metoda Tomatis učinkovala na opazne izboljšave na področju pravilnega branja besed in vizualne percepcije.

Pred izvedbo metode Tomatis so bile učenikine psihomotorične spretnosti ustrezno razvite, vendar pa so opazovanja po izvedbi metode Tomatis pokazala viden napredek tudi na slednjem področju, saj so se izboljšale telesna drža, postavitve in koordinacija obeh rok.

Pri učenki 2. razreda violončela so bili opazni vidni napredki že po prvi terapiji metode Tomatis, po uporabi slušalk TalksUp. Najizraziteje so izboljšave nastopile na področju pozornosti in koncentracije tako pri individualnem kot skupinskem pouku nauka o glasbi. Zaradi navezanosti urnikov obeh predmetov v istem popoldnevu, ki je bil tudi eden od dejavnikov nizke pozornosti in koncentracije, v časovnem obdobju dveh 60-minutnih ur, smo opazili, da je učenka zmoгла ohranjati pozornost in koncentracijo ter aktivno sodelovati v navedenem časovnem okviru že po prvi izvedeni terapiji, tj. po izvedenem 13-dnevnem intenzivu metode Tomatis. Učenikina prvotna zaspanost in utrujenost sta se umaknili, pri obeh urah je bila aktivna in dejavna. Po drugi terapiji metode Tomatis, po uporabi slušalk Forbrain, smo opazili pri skupinskem pouku nauka o glasbi izrazit napredek na področju samostojnega zapisovanja not. Pri pisanju glasbenih narekov jih je samostojno zapisala brez učiteljeve pomoči. Tudi pri izvajanju glasbenih vaj (ritmičnih in melodičnih) se je vse bolj samostojno znašla in se znala orientirati v glasbenem zapisu brez učiteljevega usmerjanja in nakazovanja notnega poteka.

Iz opisov v tabeli 2 je razbrati vidne napredke na področju pozornosti, koncentracije in notranje umirjenosti. Izhodiščno stanje je pokazalo, da je učenka med učnim procesom težko ohranjala pozornost in koncentracijo. Učitelj klavirja je poročal, da je učenka večkrat delovala telesno nemirno, to pa je posledično sprožalo slabo telesno držo pri igranju na inštrument. Učitelj je v teh primerih učenkino pozornost preusmeril od učnega dela k pogovoru z učenko in ugotavljanju vzrokov nastalih težav. Končno stanje po izvedbi obeh terapij po metodi Tomatis je pokazalo, da se je učenka notranje umirila, to je posledično pozitivno učinkovalo na izboljšanje telesne drže pri igranju na inštrument, obenem pa je učni proces nemoteno potekal, in sicer brez daljših prekinitev s prvotno opisanimi pogovori. Na področju razumevanja in uporabe glasbenega zapisa je izhodiščno stanje pokazalo, da učenka razume in zna uporabljati glasbeni zapis, vendar pa so zatikajoče glasbene izvedbe izhajale iz njene negotovosti v lastne glasbene sposobnosti, spretnosti in znanja.

Tabela 2: Izhodiščno in končno stanje na opazovanih področjih pri učenki klavirja

	Opazovana področja	Izhodiščno stanje	Končno stanje po metodi Tomatis
Učenka klavirja (2. r., 9 let)	Pozornost/koncentracija	Učenkina pozornost in koncentracija sta kratkotrajni. Med učnim procesom večkrat deluje nemirno in se začne presedati, to pa vodi v slabo telesno držo pri igranju.	Učenkina pozornost in koncentracija sta se podaljšali. Deluje umirjeno, znižala se je stopnja presedanja.
	Razumevanje in uporaba glasbenega zapisa	Učenka razume, se zna orientirati in uporabljati notni zapis. Zaradi zadržanosti in negotovosti v lastne sposobnosti potrebuje učiteljeve spodbude pri izvajanju glasbenega zapisa. Glasbeno izvajanje ni tekoče.	Stopnja zadržanosti in negotovosti je upadla. H glasbenemu izvajanju pristopa z večjo mero zaupanja in gotovosti vase. Posledično so glasbene izvedbe vse bolj tekoče.
	Psihomotorične spretnosti	Psihomotorične spretnosti pri igranju na klavir so ustrezno razvite. Težave so zaznane le pri slabi telesni drži, ki so posledica učenkine kratkotrajne pozornosti in koncentracije za učno delo.	Izboljšave na področju pozornosti in koncentracije so posledično pozitivno učinkovale na telesno umirjenost in telesno držo pri igranju na klavir.

Omenjena ovira je izraziteje izstopala pri skupinskem pouku nauk o glasbi, pri katerem se je morala učenka večkrat individualno izpostaviti pri izvajanju glasbenih vaj. Njena zadržanost je odražala nesamozavestne in negotove glasbene izvedbe. Po končanih terapijah metode Tomatis sta učitelja klavirja in nauka o glasbi poročala o samostojnejši in bolj suvereni uporabi glasbenega zapisa, glasbene izvedbe so bile bolj tekoče, pri pouku nauka o glasbi se je začela samoiniciativno vključevati in sodelovati pri načrtovanih dejavnosti. Na področju psihomotoričnih spretnosti je izhodiščno stanje pokazalo, da je učenkino kakovostno telesno držo pri igranju na inštrument ovirala nizka stopnja pozornosti in koncentracije. Po izvedeni metodi Tomatis je pozitiven napredek na omenjenih področjih posledično pozitivno učinkoval na klavirsko telesno držo.

Pri učenki 2. razreda klavirja smo opazili pozitiven napredek na področju notranje umirjenosti že po prvi terapiji metode Tomatis z uporabo slušalk TalksUp. Njena notranja umirjenost je vodila v izboljšave na področju pravilnejše telesne drža pri igranju na klavir. Pri izvajanju glasbenih vsebin smo opazili, kar je poročal tudi učitelj nauka o glasbi, da je učenka samostojno ugotavljala in popravljala nastale napake v primeru nepravilnega izvajanja na ritmičnem ali/in melodičnem področju. Predvidevamo, da so se izkazovali učinki terapij metode Tomatis tudi na področju razvoja socialnih veščin in sposobnosti notranjega slišanja glasbenih vsebin. Učenkina zadržanost je izvirala iz menjave okolja in posledično učiteljev, kar ji je predstavljalo novo učno in socialno okolje. Tudi Velze (2016) je poročal pri šestih otrocih iz socialno ogroženih družin, da je metoda Tomatis spodbudila napredek v večji čustveni stabilnosti, povečanju motivacije, samostojnosti, zbranosti, sproščenosti, večkratnem socialnem vključevanju, razvoju motoričnih spretnosti in načrtovanju motoričnih aktivnosti.

Tabela 3: Izhodiščno in končno stanje na opazovanih področjih pri učenki flavte in klavirja

	Opazovana področja	Izhodiščno stanje	Končno stanje po metodi Tomatis
Učenka flavte (1. r.) in klavirja (3. r.), 10 let	Pozornost/koncentracija	Učenkina pozornosti in koncentracija sta tekom učnega procesa na visokem nivoju, rahel upad je opaziti v zaključnem delu učnih ur.	Končno stanje na področjih pozornosti in koncentracije je po izvedbi terapij identično izhodiščnemu stanju.
	Razumevanje in uporaba glasbenega zapisa	Učenka razume, se zna orientirati in uporabljati notni zapis, glasbene vsebine slušno zelo dobro prepozna in jih izvede. Pri klavirju ima težave z ohranjanjem enakomernega metričnega utripa (tempa).	Končno stanje je po izvedbi terapij identično izhodiščnemu stanju.
	Psihomotorične spretnosti	Pri igranju na klavir ima težave s palcem desne roke, kar sproža dinamično neizenačenost. Pri igranju na flavto ima težave s pravilno držo instrumenta, kar vodi v slabo intonančno izvajanje.	Končno stanje na področju klavirja je bilo identično izhodiščnemu. Viden je napredek pri pravilni držbi igranja na flavto, intonančno izvajanje je natančnejše.

Iz opisov v tabeli 3 je razbrati identično izhodiščno in končno stanje na področju pozornosti, koncentracije, razumevanja in uporabe glasbenega zapisa. Učenkina pozornost in koncentracija sta bili vselej na visokem nivoju, pozornost in koncentracijo je ohranjala skozi učne ure. Njun rahel upad je bilo opaziti ob zaključkih učnega procesa, kar je logična posledica aktivnega in intenzivnega učnega dela. Učenkina sposobnost funkcionalne pismenosti v 3. razredu nauka o glasbi je za predvideno obdobje izobraževanja zelo dobro razvita. Kakovostno uporabo glasbenega zapisa smo opazili tako pri pouku flavte, pri katerem je učenka uporabljala glasbeni zapis v enem sistemu, in pri pouku klavirja, pri katerem se je znala orientirati v dveh sistemih različnih glasbenih ključev. Pri pouku nauka o glasbi je učenka izkazovala visoko stopnjo razvitih glasbenih predstav in znanj pri slušnem zaznavanju in izvajanju glasbenih vsebin. Pri igranju na klavir smo opazili, o tem je poročal tudi učitelj klavirja, da so bile prisotne težave na področju ohranjanja enakomernega in stalnega tempa pri izvajanju izbranih skladb. Učenka je običajno pohitevala v delih skladb, označenih z dinamiko forte in pri zaključevanju fraz, ali upočasnjevala tempo v delih, označenih z dinamiko piano. Na psihomotoričnem področju je bilo pri igranju na flavto opaziti ovire pri pravilni drži inštrumenta. Glede na to, da je bila učenka začetnica in se je igranje na flavto začela šele učiti, so slednje ovire v tej fazi običajno prisotne in pričakovane. Njena slabša drža inštrumenta je povzročila nekakovostno intonančno izvajanje, njeno izvajanje je bilo intonančno prenizko, intonacija je stalno padala. Po izvedenih terapijah metode Tomatis se je drža inštrumenta izboljšala, posledično tudi intonacija, obenem pa je bilo opaziti izboljšave v kakovosti estetskega oblikovanja tona, zlasti v nižjih legah. Tudi Hesse idr. (2002) je ugotovil, na vzorcu sedmih odraslih solopevcev, da so se pod vplivom metode Tomatis izboljšale pevske sposobnosti, predvsem z vidika intonančno čistega petja.

Opisane izboljšave pri opazovani učenki so gotovo v prvi vrsti povezane z izvajanjem učnega procesa flavte, ki je potekal dvakrat tedensko, in učenkinim domačim vadenjem. Tako ne moremo z gotovostjo trditi, da sta le terapiji z metodo Tomatis spodbudili izboljšave v pravilni drži inštrumenta in intonaciji. Predvidevamo le, da bi lahko obe terapiji podprli procese slušnega zaznavanja in glasbenih predstav v notranjem slišanju pri izboljšavah na področju intonacije in estetskega oblikovanja tona. Pri igranju na klavir se je stanje pred izvedbo terapij

metode Tomatis in po njej ohranilo. Učenka je imela pri igranju klavirja težave s palcem desne roke, to pa je sprožalo neizenačeno dinamično izvajanje. Pri igranju melodičnih linij ali sozvočij so toni, zaigrani s palcem, zveneli preglasno in so izstopali v jakosti. Predvidevamo, da bi lahko sočasnost učenja igranja na flavto, ki zahteva specifično pozicijo rok in koordinacije prstov, ustvarila negativni transfer.

Primerjava rezultatov izhodiščnega in končnega stanja na ostalih opazovanih področjih

Po zaključenem intenzivu prve terapije s slušalkami TalksUp smo primerjali pridobljene podatke z vprašalniki, ki so jih izpolnili starši opazovanih učenk pred izvedbo terapije in po njej. Stopnjo odzivanja svojih otrok na 30 opazovanih področjih so numerično ovrednotili z Likertovo lestvico stališč, od 1 do 5: 1 – zelo slabo, 2 – zadovoljivo, 3 – srednje dobro, 4 – dokaj dobro, 5 – odlično.

Tabela 4: Ugotavljanje izhodiščnega in končnega stanja učinkov metode Tomatis po prvi izvedeni terapiji (TalksUp)

Kategorija	Učenka klavirja (9 let)		Učenka violončela (8 let)		Učenka flavte in klavirja (10 let)	
	pred metodo Tomatis	po metodi Tomatis	pred metodo Tomatis	po metodi Tomatis	pred metodo Tomatis	po metodi Tomatis
Jasnost govora	4	4	4	5	3	4
Kvaliteta branja	5	5	3	5	4	4
Kvaliteta poslušanja	3	4	4	5	4	4
Kvaliteta izražanja	/	4	4	5	3	4
Sodelovanje pri aktivnostih	5	5	5	5	4	4
Razumevanje navodil	4	5	3	5	5	5
Kvaliteta komunikacije	4	4	4	5	3	3
Intuicija	5	5	5	5	3	4
Kreativnost	5	5	5	5	5	5
Koncentracija	3	5	2	4	4	4
Spomin	5	5	4	5	5	5
Radovednost	5	5	5	5	5	5
Pogum	2	3	4	4	3	4
Postavljanje vprašanj	4	5	5	5	3	4
Prevzemanje pobude	4	4	4	4	3	4
Izražanje svojega mnenja	4	/	5	5	4	5
Samostojnost	3	4	4	5	4	4
Samoobvladovanje	3	4	4	4	4	4
Odgovornost	3	3	4	4	4	4
Kvaliteta spanja	4	4	5	5	5	5
Potrpežljivost	5	5	3	4	4	4
Sproščenost	4	4	5	5	3	4
Zaupanje v življenje	3	4	4	4	4	4
Pozornost	4	5	2	4	4	4
Jasnost mišljenja	5	5	3	4	4	4
Samozavest	4	4	4	4	3	4
Notranja umirjenost	3	5	3	4	3	4
Vživljanje v sočloveka	4	4	5	5	4	4
Motorika gibanja	4	4	5	5	4	4
Fina motorika	5	5	5	5	4	4

Iz podatkov v tabeli 4 lahko razberemo, da so starši opazovanih učenk poročali o izrazitih spremembah. Starši učenke klavirja (9 let) so poročali, da so opazili izrazite pozitivne spremembe na področju koncentracije in notranje umirjenosti. O napredku na področju koncentracije in notranje umirjenosti so poročali tudi zunanji opazovalci (študenti) in učitelj klavirja. Starši učenke violončela (8 let) so poročali o

izrazitih spremembah na področjih kvalitete branja, razumevanja navodil, koncentracije in pozornosti. Tudi zunanji opazovalci in učitelj violončela so opazili enake izrazite napredke na omenjenih področjih. Starši učenke so v neformalnih pogovorih poročali, da deklica pred izvedbo metode Tomatis ni izkazovala večjega interesa za branje, da je brala počasi, po izvedbi metode Tomatis pa se je v deklici prebudil velik interes za branje knjig, da bere hitro in tekoče. Predvidevamo, da je metoda Tomatis pozitivno učinkovala tako na veščino branja in razumevanje prebrane vsebine na splošno kot tudi na razvoj funkcionalne glasbene pismenosti, saj so opažanja v učnem procesu pokazala, da se je učenka znala orientirati v glasbenem zapisu in bila pri njegovi uporabi vse bolj samostojna. Čeprav smo pri učenki flavte in klavirja opažali ovire na psihomotoričnem področju pri igranju na flavto in klavir pri izhodiščnem stanju in opazili izboljšave pri igranju flavte po izvedenih terapijah metode Tomatis, so starši učenke poročali o nekaterih vidnih napredkih tudi na drugih opazovanih področjih. Napredek so opazili na področjih: jasnost govora, kvaliteta izražanja, intuicija, pogum, postavljanje vprašanj, prevzemanje pobude, sproščenost, samozavest in notranja umirjenost. Za področje glasbenega izvajanja in nastopanja so pogum, prevzemanje pobude, sproščenost, samozavest in notranja umirjenost pomembne lastnosti, ki imajo svojo transferno vrednost.

Sklep

Pri vseh treh opazovanih učenkah so pridobljeni rezultati izkazali določen napredek na opazovanih področjih. Zvišala se je stopnja pozornosti, koncentracije in umirjenosti, izstopal je napredek pri orientaciji v glasbenem zapisu in njegovi uporabi ter v tehničnih veščinah igranja na inštrument. Čeprav rezultati kažejo pozitivne učinke metode Tomatis na opazovanih področjih, smo med spremljanjem učnega procesa pri inštrumentalnem pouku in pouku nauka o glasbi opazili in evidentirali nihanja pri napredovanju na posameznih opazovanih področjih pri posameznih učenkah. Predvidevamo, da je na učni napredek vplivalo več dejavnikov in okoliščin, ki so se izrazili tekom opazovanj. Na to so vplivali: prehod ene učenke v novo šolsko okolje, popoldanski urnik, navezanost urnika individualnega in skupinskega pouka, daljši praznični časovni premor, ki je prekinil učni proces, in psihofizični dejavniki, kot so nenaspanost, utrujenost, lakota in

zdravstveno stanje učenk. Na razvoj tehničnih veščin igranja na inštrument in funkcionalne glasbene pismenosti je gotovo vplivalo tudi izvajanje samega učnega procesa in domačega vadenja.

Pri večini od opazovanih področij, za katere so poročali starši učenk, ni bilo zaznati bistvenih sprememb oziroma so starši stopnjo odzivanja v večini primerov označili kot nespremenjeno (sprememb ni bilo niti na slabše, niti na boljše). Predvidevamo, da je bilo število opazovanih področij, ki so jih spremljali starši učenk, previsoko (30) in da je ta dejavnik povzročil neobjektivno vrednotenje sprememb na drugih področjih. Čeprav so končni rezultati izkazali napredke na opazovanih področjih, ne moremo z gotovostjo trditi, da so opažene izboljšave posledica učinkov izvedenih terapij. Z gotovostjo pa lahko trdimo, da je izvedena metoda Tomatis pozitivno vplivala na področja koncentracije, pozornosti in notranje umirjenosti, saj se je napredek pokazal pri vseh treh opazovanih učenkah, o omenjenih pozitivnih izboljšavah pa so poročali tudi učitelji inštrumentalnega in skupinskega pouka, zunanji opazovalci in starši učenk. Za verodostojnejše rezultate bi bilo treba izpeljati longitudinalno raziskavo na večjem vzorcu in preveriti zanesljivost pozitivnih učinkov metode Tomatis na učne dosežke pri učencih v glasbeni šoli.

V primerjavi z mednarodnim prostorom je metoda Tomatis v slovenskem prostoru skromno zastopana in manj poznana. Izvedeni projekt je pomemben prispevek za njeno večjo prepoznavnost in odpira nove možnosti preučevanja in raziskovanja pri nas. V glasbenem šolstvu se poraja vse večja potreba po ustreznih rešitvah in usmeritvah dela z učenci z različnimi (specifičnimi) učnimi težavami in motnjami pozornosti (Zadnik, Habe, 2018). Zaradi deficita poklicnih profilov psihologov in socialnih delavcev v glasbenem šolstvu bi morda z vključitvijo metode Tomatis lahko reševali in premoščali tovrstne težave. Ob tem pa se nam odpre novo vprašanje možnosti financiranja nakupa potrebnih naprav in odprtosti staršev, ki bi bili pripravljeni podpreti svojega otroka na poti premoščanja izkazanih (učnih) težav in nameniti dodatni prosti čas za izvajanje metode Tomatis v glasbeni šoli.

Summary

In the Slovenian general and music school, we are faced with the increasingly phenomenon of pupils with special needs. In comparison with the Basic School Act, which provides the opportunity for integration of mentioned groups into regular educational programs, the Music Schools Act does not define and direct pupils with special needs. The main national document focuses on talented and above-average gifted pupils. Contrary, the teaching practice in music school shows a growing trend of mentioned group of pupils and, consequently, an increasing need towards proper didactics approaches and strategies in learning process. The active teachers of public music schools report their needs for additional and permanent professional training for this group of pupils (Zadnik, Habe, 2018). Due to the fact that there are not any professional services to provide a support for teachers of individual and group classes, teachers are left to the independent recognition and proper direction of these pupils in the learning process. The described situation was an incentive to execute the project with the Tomatis method (TM) in one of the Slovenian music school.

Alfred Tomatis (1920 – 2001) was a French otolaryngologist who treated opera singers with vocal problems. He discovered that problems with vocal cords and throat arise mainly from modest vocal technique and poor auditory perception. He meant that problems of the auditory perception arise from damaged muscles of the middle ear. Tomatis as an inventor developed *the electronic ear*, a device which tonifies the muscles of the middle ear in order to sensitize the listener to the missing frequencies. Tomatis began treating a number of other problems with the same method, including dyslexia, depression, schizophrenia, autism. The TM is a natural approach to neurosensory stimulation of auditory organ. It is an alternative medicine which bases on listening to the music, with TalksUp headphones, and own voice, with Forbrain headphones. The listening programmes of TM use recordings by Mozart, Gregorian Chant and waltzes. To the original musical examples are added dynamic contrasts, sound filters to enhance the uppermost missing frequencies and *electronic gating* which speciality is listening to the music once through the right, left or both ears, to selected recordings are added sound disturbances (bangs, noise). The unexpected sound patterns encourage the

continuous active functioning of the middle ear muscles attached to the hammer and stamens, thus ensuring the transmission of sound stimuli into the inner ear. The goal of listening in a such a way is to activate brain centers responsible for auditory, motor, emotional, cognitive skills. The headphones enable listening to the music through the auditory organ (by air), and, because they lean against the top of a head, the vibrations of music is perceived through the skull and bones of the body. The therapy of Talks Up headphones is followed by the therapy of headphones Forbrain. They are placed on the bone of the head under the shadows, a microphone is placed in front of the mouth in which we can sing, speak and listen to own voice at the same time. It is an audio-vocal loop which transfers the listened patterns by air and utilises bone conduction transducers. Using Forbrain headphones connects brain neurons that have been activated using the TalksUp headphones and strengthens synaptic contacts between stimulated neurons.

Foreign research, executed among musicians, adults and children, predominantly at low samples of participants, show positive effects of TM in domains of learning foreign language, dyslexia, dyspraxia, autistic spectrum disorder, ADHD. The first qualitative research, which tried to determine effects of TM at the individual instrumental and group Music theory lesson in music school, is based on three pupils. The initial state of pupils of cello (8-years-old), piano (9-years-old), flute and piano (10-years-old) showed difficulties in the areas of attention, concentration, development of functional musical literacy, technical skills playing the instrument. The triangulation of results (teachers, external observers, parents) showed positive improvements in attention, concentration, internal calmness, body posture playing the instrument. By cellist a prominent progress was expressed in the development of musical literacy, in the better orientation and more independent use of the musical notation.

Literatura

- AbediKoupaia, M., Poushanehb, K., Mohammadi, Ali Z., Siampour N. (2013). Sound therapy – an experimental study with autistic children. *Procedia – Social and Behavioral Sciences*, 84, str. 626–630. Pridobljeno s <https://www.sciencedirect.com/science/article/pii/S1877042813-016893> (Dostopno 22. 8. 2019.)
- Bonthuys, A., Botha FH K., Stols, A. (2017). Prospective conceptual model of Tomatis method effects on students' self-regulation. *Journal of Psychology in Africa*, 27 (5), str. 427–432.

- Pridobljeno s [https://www.researchgate.net/search.Search.html?type=publication&query=Prospective%20conceptual%20model%20of%20Tomatis%20method%20effects%20on%20students%E2%80%99%20self-regulation_\(Dostopno 22.8.2019.\)](https://www.researchgate.net/search.Search.html?type=publication&query=Prospective%20conceptual%20model%20of%20Tomatis%20method%20effects%20on%20students%E2%80%99%20self-regulation_(Dostopno%2022.8.2019.))
- Campbell, Don (2004). *Mozart za otroke: prebujanje otrokove ustvarjalnosti in mišljenja s pomočjo glasbe*. Ljubljana: Tangram.
- Habe, K. (2005). *Vpliv glasbe na kognitivno funkcioniranje* (doktorska disertacija). Univerza v Ljubljani, Filozofska fakulteta, Ljubljana.
- Hesse H. P., Balzer, H. U., Bachmann, K.; Ferstl, E., Fritz, Florentina M., Schmid, I. (2002). Tomatis® hearing treatment study on musicians. *Preliminary report summary*. Pridobljeno s <http://tomatisassociation.org/tomatis-hearing-treatment-study-on-musicians/> (Dostopno 24. 8. 2019.)
- Malak R., Mojs E., Ziarko M., Wiecheć K., Sudol A., Samborski W. (2017). The role of Tomatis sound therapy in the treatment of difficulties in reading in children with developmental dyslexia. *Journal of Psychology and Cognition*, 2 (1), str. 17–20. Pridobljeno s <http://www.alliedacademies.org/articles/the-role-of-tomatis-sound-therapy-in-the-treatment-of-difficulties-in-reading-in-children-with-developmental-dyslexia-6318.html> (Dostopno 24. 8. 2019.)
- Nicoloff, F. (2004). Case studies of children with dyspraxia following intervention with a Tomatis method program. *International Journal of Tomatis Method Research*, 1 (1), str. 30–37. Pridobljeno s <http://tomatisassociation.org/case-studies-of-children-with-dyspraxia/> (Dostopno 24. 8. 2019.)
- Peklaj, C. (2010). Učitelj in učenci s posebnimi potrebami v glasbeni šoli. V B. Rotar Pance (ur.), *Glasbeno-pedagoški zbornik Akademije za glasbo*, 14 (str. 53–65). Univerza v Ljubljani, Akademija za glasbo.
- Plessis, W. du, Vercuci, A., Taljaard, H. (2009). The effect of the Tomatis® method on student pianists' piano performance and psychological well-being. Pridobljeno s <http://tomatisassociation.org/the-effect-of-the-tomatis-method-on-student-pianists-piano-performance-and-psychological-well-being/> (Dostopno 25. 8. 2019.)
- Ratyńska, J. (2014). Attention and Tomatis method for success: results of the project made in Poland from 2010 to 2013. Pridobljeno s <https://tomatisassociation.org/attention-and-tomatis-method-for-success-results-of-the-project-made-in-poland-from-2010-to-2013/> (Dostopno 25. 8. 2019.)
- Sacarin, L. (2013). Early effects of the Tomatis listening method with children with attention deficit (Doktorska disertacija). AURA – Antioch University, Seattle. Pridobljeno s [https://tomatis.com.au/wp-content/uploads/2017/04/Early-Effects-of-the-Tomatis-Listening-Method-in-Children-with-Attention-Deficit.pdf_\(Dostopno 25. 8. 2019.\)](https://tomatis.com.au/wp-content/uploads/2017/04/Early-Effects-of-the-Tomatis-Listening-Method-in-Children-with-Attention-Deficit.pdf_(Dostopno%2025.8.2019.))
- The Tomatis Method*. (b.d.). Pridobljeno s <https://www.tomatis.com/en/training-course> (Dostopno 23. 8. 2019.)
- Tomatis, Alfred A. (2005). *The Ear and the Voice*. Toronto: The Scarecrow Press, Inc.
- Tomatis. History*. (b.d.). Pridobljeno s <https://www.tomatis.com/en/history> (Dostopno 23. 8. 2019.)
- Tze-Ming Chou, P. (2012). A pilot study on the potential use of Tomatis method to improve L2 reading fluency. *Teaching English with Technology*, 12 (1), 20–37. Pridobljeno s [https://files.eric.ed.gov/fulltext/EJ1144958.pdf_\(Dostopno 24. 8. 2019.\)](https://files.eric.ed.gov/fulltext/EJ1144958.pdf_(Dostopno%2024.8.2019.))
- Velze, G. van (2016). Case studies: 6 children from 5 years to 7 years using the Tomatis® method to develop learning and academic skills. Pridobljeno s <https://tomatisassociation.org/case-studies-6-children-from-5-years-to-7-years-using-the-tomatis-method-to-develop-learning-and-academic-skills/> (Dostopno 26. 8. 2019.)

- Zadnik, K., Habe, K. (2018). Specifične učne težave (SUT) pri predmetu nauk o glasbi v glasbeni šoli. V: M. Schmidt, D. Rus Kolar, E. Kranjec (ur.), *Vloga inkluzivnega pedagoga v vzgoji in izobraževanju: konferenčni zbornik* (str. 251–267). Maribor: Univerzitetna založba Univerze.
- Zakon o glasbeni šoli/ZGla/* (2000, 2006). Uradni list RS, št. 81/06 (31. 7. 2006). Pridobljeno s <http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO2063> (Dostopno 23. 8. 2019.)
- Zakon o osnovni šoli/ZOsn/* (1996). Uradni list RS, št. 12/96 (29. 2. 1996), Pridobljeno s <http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO448> (Dostopno 24. 8. 2019.)
- Zakon o spremembah in dopolnitvah Zakona o osnovni šoli/ZOsn-H/* (2011). Uradni list RS, št. 87/11 in 40/12 – ZUJF (17. 11. 2011). Pridobljeno s <http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO6129> (Dostopno 25. 8. 2019.)
- Zakon o usmerjanju otrok s posebnimi potrebami/ZUOPP, ZUOPP-1/* (2000, 2011). Uradni list RS, št. 58/11 (22. 7. 2011).. Pridobljeno s <http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO5896> (Dostopno 26. 8. 2019.)

Avtorica

Dr. Katarina Zadnik, PhD

Docentka, Univerza v Ljubljani, Akademija za glasbo, Stari trg 34, 1000 Ljubljana, Slovenija, e-pošta: katarina.zadnik@pef.uni-lj.si

Assistant Professor, University of Ljubljana, Academy of Music, Stari trg 34, 1000 Ljubljana, Slovenia, e-mail: katarina.zadnik@pef.uni-lj.si

EXTENSIVE READING AND CHANGES TO READING MOTIVATION IN EFL AMONG SLOVENE PRIMARY SCHOOL PUPILS

ANJA PIRIH

Potrjeno/Accepted
5. 11. 2019

University of Primorska, Faculty of Humanities, Slovenia

Objavljeno/Published
9. 12. 2019

CORRESPONDING AUTHOR/ KORESPONDENČNI AVTOR
anja.pirih@fhs.upr.si

Keywords:

EFL, changes to reading motivation, extensive reading, primary school pupils, influences on EFL reading motivation

Ključne besede:

tujji jezik angleščina, spremembe v bralni motivaciji, ekstenzivno branje, osnovnošolci, vpliv na bralno motivacijo v angleščini

UDK/UDC

028:373.3:811.111'243

Abstract/Povzetek The article provides insight into the dynamics of the EFL reading motivation of a group of Slovene primary school pupils voluntarily participating in a 9-month pilot extensive reading programme in EFL and the factors causing motivational changes. Analysis of the semi-structured interviews and book reports confirms that reading motivation in EFL is a complex and dynamic process fuelled by numerous influences, most noticeably reading materials, the influence of family members, positive attitudes towards English, and external demands, which needs to be considered when designing reading programmes and researching reading motivation.

Ekstenzivno branje in spremembe v bralni motivaciji v angleščini kot tujem jeziku pri slovenskih osnovnošolcih

Članek predstavlja ugotovitve, pridobljene na osnovi raziskave o dinamiki bralne motivacije v angleščini kot tujem jeziku pri skupini slovenskih osnovnošolcev, ki so se prostovoljno vključili v 9-mesečni pilotni program ekstenzivnega branja v angleščini, in vzroke za spremembe v njihovi motivaciji. Analiza polstrukturiranih intervjujev in bralnih poročil je potrdila, da je bralna motivacija v angleščini kot tujem jeziku kompleksen in dinamičen proces, na katerega vplivajo predvsem bralna gradiva, družina, pozitivna stališča do angleškega jezika in zunanje obveznosti, vse to pa je treba upoštevati pri oblikovanju bralnih programov in prihodnjih raziskavah bralne motivacije.

Introduction

One of the most important factors determining academic achievement among students of different ages and in different cultural contexts is reading achievement, which is shaped by various environmental and personal factors, most noticeably reading motivation (Guthrie & Wigfield, 1997; Pečjak & Košir, 2004; Pečjak & Peklaj, 2006). Experts in the field of reading (Baker & Wigfield, 1999; Guthrie & Wigfield, 1997; Pečjak & Gradišar, 2012) see reading motivation as one of the key factors that influence reading efficiency and learning motivation in general. In the field of foreign language (FL) learning, reading motivation plays an important part, influencing the development of linguistic skills as well as attitudes towards FL, FL learning and reading. Even though young Slovene teenagers often choose reading materials in English for their voluntary free-time reading (Pirih, 2015), the field of reading motivation in a foreign language is under-researched in the Slovene context. In Slovene primary schools, reading in a foreign language is in most cases limited to intensive reading (e.g. skimming a text for specific information to answer true or false statements, scanning a text to match headings to paragraphs), and the pupils hardly ever get the opportunity to participate in extensive reading activities (e.g. quiet reading time or a reading breakfast), even though extensive reading has been recognised as a very effective way of teaching and promoting second language (L2) or FL reading. Numerous studies (e.g. Mason & Krashen, 1997; Leung, 2002; de Morgado, 2009) have shown its linguistic and affective benefits, and it has been incorporated into various L2/FL reading programmes worldwide. For a number of FL reading motivation studies, an extensive reading programme represents a suitable research context, since its components reflect the widely used FL reading motivation model by Day and Bamford (1998). However, the majority of existing studies on EFL reading motivation (e.g. Baker & Wigfield, 1999; Guthrie & Wigfield, 1997; Mori, 2002; Takase, 2007; Judge, 2011) have failed to consider more recent findings in the field of FL learning motivation and reading behaviour, namely the dynamic nature of FL learning motivation (Dörnyei and Otto, 1998) and the temporal aspect in L2 reading motivation, as well as digital reading, which has become an integral part of daily life and education worldwide. The aim of this research was therefore to involve a group of Slovene primary school pupils in an extensive reading programme in EFL with complete autonomy in choosing their

reading materials and thus to gain insight into the dynamics of their EFL reading motivation and the factors causing any motivational changes that might occur.

(FL) reading motivation

Researchers of reading motivation define it as a multidimensional construct with various goals and beliefs, which not only influences the individual's reading behaviour (Pečjak & Gradišar, 2012) but also functions as the most important component of literacy and a starting point for one's reading literacy. As Pečjak and associates (2006) explain, an individual's reading motivation is influenced by numerous external factors and changes in the course of his/her life, which makes research into reading motivation a challenging task.

The theoretical framework for researching the dimensions of reading motivation can be found in self-efficacy theory (Bandura, 1993), achievement goal theory (Ames, 1992) and most of all, Deci and Ryan's (1985) self-determination theory. Deci and Ryan (1987) proposed four dimensions of motivation: competency, relatedness, autonomy and interest. These were further analysed by Wigfield and Guthrie (1997) in their Motivation for Reading Questionnaire (MRQ). The MRQ was administered to a sample of elementary school learners in the USA, and the results confirmed that children's reading motivation is multidimensional, more specifically, composed of 11 dimensions of reading motivation that form three categories: competence and self-efficacy beliefs, purpose for reading / reading goals and the social aspects of reading. According to Wigfield and Guthrie, students who believe in high reading self-efficacy and see reading material as challenging fulfil their need for competence, which facilitates their intrinsic motivation. However, not all individuals with high reading self-efficacy become engaged readers. For students to engage in reading, the reading task should also be interesting, meaningful (the achievement of the reading task should have some personal value for them) and useful (Wigfield, 1997). This is closely linked to the purposes that students have for reading and their intrinsic and extrinsic motivation. As Wigfield and Guthrie (1997) explain, to develop students' intrinsic motivation for reading, it is crucial that they get involved in reading, that they read about topics that interest them, and that they perceive reading as important for their lives and/or success. On the other hand, extrinsically motivated students are interested in reading if the

reading tasks bring rewards (public acknowledgement / recognition or grades) or help them outperform others (competition). Extrinsic motivation comes from external, social sources and usually results in less cognitive engagement and the use of less complex learning strategies (Ryan & Deci, 2000). Wigfield and Guthrie's MRQ study (ibid.) showed that intrinsic motivation more than other factors facilitates readers' engagement in reading, which is crucial for lifelong, voluntary reading and has long-term effects. Reading is, of course, also a social activity, since it takes place in social settings and makes it possible for the readers to achieve social goals. Research has shown that active and good readers come from families that value books, encourage reading and participate in reading. The sense of relatedness that children acquire in such families plays an important role in their interest in reading: i.e. they are drawn to the activity that is meaningful to others in their closest social environment (Sweet, 1997).

In the context of second / foreign language reading, the most influential reading motivation model was designed by Day and Bamford (1998) and tries to explain the factors influencing one's decision to read in a second language within the expectancy – value theory of L2 learning motivation. According to this theory, achievement behaviour is influenced by two key factors: the individual's expectation of success in a given task and the value the individual associates with success in that task (Eccles et al., 1983; Eccles & Wigfield, 1995). Applying expectancy – value theory to reading motivation, Day and Bamford (1998) developed a L2/FL reading motivation model that consists of four major components: a) materials, b) reading ability in L2 (both related to the expectancy component of successful L2 reading), c) attitudes toward reading in L2, and d) sociocultural environment (both related to the value component). According to Day and Bamford (1998, 2002), reading materials need to be interesting, attractive, readily available and easy to understand (well within the learners' reading competence in the foreign language). Reading ability in L2 relates to the individual's sense of self-efficacy and beliefs about their reading ability in L2. Students with low reading ability are likely to have low expectations of success, and as a result, they tend to have lower motivation to read, and vice versa. For Day and Bamford, the factors crucial for shaping L2 reading attitudes are L1 reading attitudes, previous L2 reading attitudes (if any), attitudes toward L2, culture and people, and the L2 classroom environment. Even though

they claim that positive and negative attitudes to L1 transfer to L2 reading, there are several studies (among them Yamashita, 2004; Takase, 2007; and Pirih, 2015) which show that the transfer of reading attitudes is more complex and not nearly as straightforward as that. The same is true for previous L2 reading attitudes, which presumably generate reading attitudes in another foreign language. Moreover, Day and Bamford (1998) believe that favourable feelings towards the second/foreign language, culture and people, as well as the classroom environment (the language teacher, classmates, materials, activities, etc.) may transfer to reading in L2. The last important influence is the learner's sociocultural environment, which includes the impact of significant others, namely family and friends. In Day and Bamford's (1998) opinion, motivating reading materials and positive attitudes towards reading in L2 have a stronger influence on L2 reading motivation and can compensate for low reading ability and/or an unsupportive sociocultural environment (1998). However, studies (Fujita & Noro, 2009; Sani & Zain, 2011) have found the crucial role that L2 proficiency and L2 reading ability play in L2 reading motivation, while de Burgh-Hirabe (2011) also identified a less favourable sociocultural environment as a decisive factor in hindering students' L2 reading motivation. Nevertheless, Day and Bamford's model remains the dominant theoretical framework for research in the field of L2 reading motivation, which is mostly studied in close connection with extensive reading in a foreign language (Takase, 2007; Nishino, 2007; Judge, 2011; de Burgh-Hirabe & Feryok, 2013), an effective strategy for motivating L2 learners (Day & Bamford, 1998, 2002).

Extensive reading

Extensive reading (ER), sometimes referred to as sustained silent reading (McCracken, 1971, p. 521) or free voluntary reading (Krashen, 2011), is not only a style of reading (alongside skimming, scanning and intensive reading), but reading with a distinct pedagogical potential, in Day and Bamford's words "real-world reading but for a pedagogical purpose" (1998, p. 4). The term was first used by Harold Palmer (1968), who defined it as reading "book after book" (p. 137) with the reader's attention on the meaning, not the language, of the text. He was also the first to contrast it with intensive reading, which refers to the close study of shorter passages, accompanied by various linguistic tasks. This type of reading is seen as a

language lesson rather than a reading lesson (Alderson & Urquhart, 1984, p. 246), while ER replicates real-life informative and pleasurable reading of large quantities of reading material that learners select themselves (Day & Bamford, 1998; Grabe & Stoller, 2002).

The complexity of the ER approach is perhaps most evident in the description of its characteristics that Day and Bamford (2002) compiled in the form of the Top Ten Principles for Teaching Extensive Reading, in which the authors focused on the reading materials, the reading process, the role of the learner, and the role of the teacher:

1. The reading material is easy.
2. A variety of reading material on a wide range of topics must be available.
3. Learners choose what they want to read.
4. Learners read as much as possible.
5. The purpose of reading is usually related to pleasure, information, and general understanding.
6. Reading is its own reward.
7. Reading speed is usually faster rather than slower.
8. Reading is individual and silent.
9. Teachers orient and guide their students.
10. The teacher is a role model of a reader.

For ER to succeed, the reader must have access to a variety of easy reading material on a wide range of topics. As Day and Bamford explain, this not only encourages reading in general, but enables a flexible approach to reading, with learners reading for different reasons (to find information, to pass the time, to enjoy themselves, etc.) and in different ways. Not only should diverse, reading material for ER be easy as well, meaning it should be well within the learners' reading competence, at *i minus 1* level (*i* being the level of reader's linguistic ability). If the text is too demanding linguistically, this interrupts the flow of reading and forces learners into dictionary use, which further moves the reading experience away from reading for pleasure towards intensive reading. It is therefore crucial that learners start with easy materials and avoid the use of dictionaries.

Day and Bamford (2002, p. 138) state that the goal of ER is “related to pleasure, information and general understanding” and that “reading is its own reward,” putting in focus the reader’s personal experience. The reader is autonomous in choosing the reading materials, their level, and the time and pace of reading, while being encouraged to stop reading anything that might be too difficult or not interesting enough. This principle gives the readers control of and responsibility for their own learning: i.e., it emphasizes self-directed learning, which fosters intrinsic motivation, develops language proficiency and increases self-esteem (Dickinson, 1995).

Day and Bamford (*ibid.*) further describe ER as an individual and silent activity, in which the teacher’s role is that of mentor and role model. Teachers should not only explain the methodology, assist in selecting appropriate texts, point out the expected outcomes and encourage students to read as widely as possible, but also share the reading experience with their students and teach the attitudes and behaviours of a reader by being readers themselves. As discussed by Bratož and Žefran (2018), the classroom environment offers plenty of opportunities for enhancing both teacher-learner and learner-learner interaction. In the context of ER, this is essential in creating a class reading community.

Relatively fast reading speed seems only natural when one reads interesting and easily understandable reading materials. Nuttall (in Day & Bamford, 2002) closely links reading speed to enjoyment and comprehension in the “vicious circle of the weak reader: Reads slowly; Doesn’t enjoy reading; Doesn’t read much; Doesn’t understand; Reads slowly...” and “the virtuous circle of the good reader: Reads faster; Reads more; Understands better; Enjoys reading; Reads faster...” (p. 138). The principle that raises many questions and is included in the ‘vicious’ as well as ‘virtuous’ circle, is the amount of reading. According to Day and Bamford (1998), as students differ in their circumstances and abilities, so does the quantity of materials and the time they spend reading. Nevertheless, they set the lower limit of their reading target at one book (the length depends on the reading ability) a week (Day & Bamford, 2002). The amount of time this takes also depends on how long the students can read with pleasure before losing interest. The danger that Day and Bamford (1998) see in setting reading quotas is that it might diminish reading

enjoyment and reduce reading to a number of pages or an amount of time spent reading per week.

One of the most debated components of ER programmes is the reading materials. Many researchers (Day & Bamford, 1998; Mori, 2002; Hidi & Renninger, 2006; Lien, 2010; Lake, 2014) see these as crucial in maintaining the interest and reading motivation of students. However, when it comes to the question of authenticity vs simplicity, the ER specialists remain divided. In a typical extensive reading programme, learners are offered / instructed to read language learner literature, most commonly graded readers. Graded readers are designed to suit different proficiency levels, thus enabling the readers to choose texts within their reading comfort zone and developing their L2 reading fluency and confidence. On the other hand, many language teachers see authentic, real-life texts as relevant, motivating, culturally enlightening and as genuine discourse that prepares students for real-world reading. Additionally, readers in several studies (e.g. Nishino, 2007; Aiello, 2016) expressed strong preference for authentic L2 texts over graded readers. In their attempt to re-examine authenticity and simplicity of reading materials, Day and Bamford (1998) point out that ER instructors should not select texts solely on the basis of the target audience or source, the level of language, the complexity of syntax, etc., but based also on the natural qualities of a text that make it authentic. In their opinion, a variety of interesting and attractive materials, suitable for ER, includes not only language learner literature, but also children's books, learners' own stories, varied types of newspapers (tabloid, quality), magazines, popular and simple literature, young adult literature, comics and translations. Language learner literature, however, is seen as the first choice for beginner and intermediate students, since it allows them to progress slowly and develop reading fluency (Day & Bamford, 1998). Another materials-related issue that divides the reading instructors is the medium of the text. Should readers be offered paper-based or screen-based reading materials? In recent decades, the increased use of the internet and smartphones has changed, among other things, the reading behaviour of the majority of the population, most noticeably teenagers and young adults. They use the internet for a variety of purposes, academic and personal, and consequently, a certain amount of reading has already moved into the virtual world. Especially when reading in English, students find most of their reading materials online (Pirih, 2015),

and screen-based reading is increasingly being used in educational contexts as well. ER programmes have also started turning to online materials to offer a wider selection of (authentic) texts on a virtually unlimited range of topics and genres. The internet as a source of reading materials is especially valuable for foreign language teaching/learning, since obtaining a wider range of printed materials in the target language often represents a considerable cost and may impede the implementation of an extensive reading programme (Robb and Susser 1990). Even though researchers (Mangen, Walgermo & Brønnich, 2013; Milliner & Cote, 2015; Takase, 2016) point to some of the downsides of screen-based reading, i.e. lower reading rates, lower comprehension rates, not as deep engagement with a text as in paper-based reading, other studies (Mangen & Van der Weel, 2016; Walker, 2017) show the growing preference of students for screen-based reading and stress its powerful pedagogical potential, especially easy access to varied, up-to-date sources, development of students' time management skills and their autonomy (Silva, 2009).

Research on extensive reading and FL reading motivation

Numerous researchers have investigated ER and its (positive) influence on very different aspects of L2 learning and, more specifically, on reading motivation. A substantial body of research has studied the impact of ER on reading motivation among adults and university students (among them Mason & Krashen, 1997; Leung, 2002; de Morgado, 2009; Judge, 2011), and several studies have focused on primary and secondary school readers. In their meta-analysis, Briggs and Walter (2016) gathered 30 studies on ER and young L2 learners' motivation and attitudes and showed the positive impact that extensive reading has on L2 reading motivation and attitudes. Moreover, they identified the factors that make the most difference in L2 reading motivation and attitudes: L2 reading proficiency, pre-ER attitudes towards L2 reading, L2 reading material, the interplay between L2 text readability and L2 reading proficiency, autonomy, and time/external work constraints.

During lengthy learning processes, such as in L2 learning and ER, attention has been drawn to the unstable nature of motivation. Dörnyei and Otto (1998, p. 45) claim that “motivation is not so much a relatively constant state but rather a more dynamic entity that changes in time”. Recognition of changes in motivation over time has led to process-oriented approaches to the analysis of L2 motivation research, which identified multiple phases fuelled by largely different internal and contextual motives (*ibid.*). However, hardly any studies (Nishino, 2007; de Burgh-Hirabe, 2011; de Burgh-Hirabe and Feryok, 2013) have investigated ER over longer time periods and explored the temporal aspect in L2 reading motivation. Their major finding is that L2 reading motivation is indeed complex and dynamic; it is influenced by multiple separate factors, which change over time. Nishino (2007) researched motivational change over 2.5 years of ER by two younger EFL students in Japan. Data was collected from semi-structured interviews and field notes taken during the reading sessions, and the results confirmed that L2 reading motivation is not static but a dynamic process that changes over time. Nishino especially stressed the importance of reading interesting books at the appropriate level of proficiency to build confidence and the feeling of achievement. Her students reported less interest in graded readers and a preference for authentic texts, while their motivation was also influenced by the pleasure and flow of reading, their tendency towards more independent reading, and entrance exams. De Burgh-Hirabe and Feryok’s qualitative study (2013) set out to research motivational changes for ER in Japanese as a foreign language by using de Burgh-Hirabe’s (2011) model of the complex and dynamic nature of L2 motivation, designed in accordance with Dörnyei and Ottó’s process model of L2 motivation (1998) and Day and Bamford’s model for ER (1998). The authors conducted interviews and collected journal entries from the participants, who read only graded readers outside of class and participated in the programme voluntarily. Ten factors influencing their reading motivation were identified: a) the goal of improving their Japanese, b) instrumental benefits, c) perceived progress and a feeling of success, d) intrinsic values, e) ER books, f) beliefs about L2 reading, g) autonomy, h) external demands, i) distractions and j) self-regulation. According to de Burgh-Hirabe and Feryok’s (2013) model, the first two factors relate to the project preactional phase (which concerns the decision to participate in the ER project), while the other factors relate to the project actional phase (which concerns each book-reading experience within

the project) and the postactional phase (which concerns the evaluation of the ER project).

In Slovenia, the use of ER activities in the L2/FL classroom is not an established practice, apart from the Reading Badge projects, which, however, require elementary school participants to read only a few externally selected graded readers in total. Therefore, the potential of this pedagogical approach to FL reading instruction in Slovenia has not yet been exploited or researched. With this in mind, the author implemented a 9-month ER programme at one of the Slovene primary schools and researched the students' perceptions of EFL extensive reading, changes in their motivation to read extensively over the course of the programme and factors influencing these changes.

Study and results

Slovene young teenagers do voluntarily read in English in their free time (Pirih 2015); however, they are seldom if ever introduced to a structured ER approach when learning second or foreign languages at school. To give them an opportunity to participate in an ER programme and evaluate its pedagogical potential, such a programme was implemented at a Slovene primary school, and some of the most important characteristics were researched. Unlike most ER programmes with primary school pupils as participants, this programme was implemented outside the school curriculum, as a voluntary extracurricular activity, and the participants were given complete autonomy in choosing their reading materials. They were not limited to reading graded readers or other language learner texts, nor to reading only printed materials. They read in their free time, independently choosing the time, place and pace of their reading. For this reason, special attention was given to evaluating reading materials, the reading process, and linguistic and affective benefits that the participants reported experiencing (Pirih 2017). The results of the evaluation study suggest that ER can be used as an effective pedagogical approach for teaching EFL reading, not only for secondary school and university students, but for older primary school students as well, since the young readers reported linguistic and affective benefits, as well as increased reading motivation in EFL. They expressed a preference for authentic materials over graded readers and

developed a degree of independence in selecting interesting reading materials at an appropriate difficulty level (Pirih *ibid.*). Moreover, the ER programme provided the context for the current qualitative research into the temporal aspect of reading motivation in EFL, as well as the changes in and causes of these changes. The present study therefore focuses on the following research questions:

1. Did the motivation to read extensively in EFL among participants in the extensive reading programme change over the course of the programme?
2. What were the factors influencing the possible changes in their EFL reading motivation?

Participants

After some initial changes in the number of the participants, the final case study group included 10 students (8 girls and 2 boys) aged 13-14, from a semi-urban primary school in Slovenia. Prior to the start of the ER programme, which they joined voluntarily, the participants had received at least five years of formal English education (at least 350 hours); two students attended additional English lessons at private language schools, two students had travelled to English speaking countries. The group was very heterogeneous, with different English (reading) proficiency levels. The names used for them in this paper are pseudonyms.

Data collection and analysis

Self-report data that were used in this study were collected using a combination of quantitative and qualitative methods. The most important source came from five short, semi-structured interviews (approximately 15 minutes) with each participant: one conducted at the start of the programme, to gather background information and ask about their reasons for participating in the programme, three conducted in the course of the programme, to monitor the amount of reading, the possible changes in their EFL reading motivation and the factors influencing these changes, and one at the very end, focusing primarily on their perception of the ER experience and evaluation of its results. All the interviews were conducted in Slovene; the raw

data collected and analysed (transcripts of audio recorded interviews and researcher's notes) were also in Slovene; only sections later used as direct quotations were translated into English. The data was analysed using inductive coding, with the coding system developed after the close examination of the gathered materials and the literature review. In the interpretation of results, extracts (direct quotations) from the raw data (i.e. interviews) were used to substantiate the findings.

After each reading, the students filled in ER reports in Slovene. Data on three topics (the amount of reading, the format of the reading material and the reader's opinion of the material) were gathered and analysed, using descriptive statistics.

Results and discussion

The presentation of the data gathered from interviews with the participants in the programme is organised according to the codes and categories that emerged from the analysis of all interviews.

Change in reading intensity and attitudes towards extensive reading and EFL learning

This section presents results gained by examining the interviews with participants and their ER reports. Participants faced some difficulty in keeping track of the number of texts read and/or the amount of time spent reading; therefore, they sometimes reported exact times (mostly when they read books), but predominantly they reported estimates, i.e. the average amount of time spent reading every day or every week.

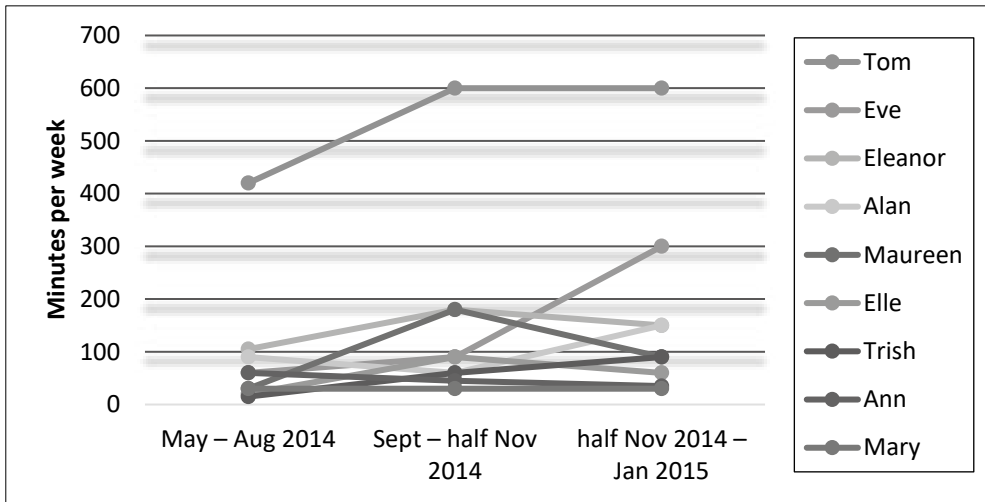


Figure 1: Estimated time (minutes / week) the participants spent reading in English

Since such estimates are bound to be subjective and not easily comparable, they were not used to make comparisons among participants in terms of their reading intensity, but to gain insight into changes in the reading intensity of each individual participant.

As shown in Figure 1, there were roughly three patterns of change in EFL reading motivation in the course of the programme: an increase in motivation (for 7 participants), a decrease in motivation (for 1 participant) and no change (for 1 participant). Erin, whose motivation decreased, is not included in the graph, since she did not report the time reading but the number of pages. Only two participants experienced a steady increase or decrease; all the others reported ups and downs in their motivation in the course of the programme, with more or less noticeable differences in the time they spent reading in English in the first 15 weeks, the middle 11 weeks or the last 11-week period of extensive reading within the programme.

The largest section of the first 15 weeks comprised the summer holidays, when most of the participants travelled and found little time to read in English or otherwise. However, once they settled into the school rhythm and the set schedule of schoolwork and extra-curricular activities, and once we started the interviews,

they began to read more. The second and the third part of the programme took place during the first semester of the school year. Both semesters finish with a busy few weeks of exams, presentations and assignments, which normally leave less free time for the students. There was only one participant in the programme whose reading intensity did not change but remained stable at a lower level, and that was Mary.

All the participants had at least some experience with reading in English before they decided to join the programme. They all reported reading at least a few times a month in English outside the EFL classroom, in their free time, so the reading experience within the EFL extensive reading programme was not novel to them. Moreover, all the participants reported (very) positive feelings towards reading in English (as seen in the first column of the table below); however, some spontaneously reported changes in this area as well.

As seen (Table 1), no negative impact was identified. Tom, Maureen and Trish did not refer to their reading enjoyment in the course of the programme. Since they started with positive feelings, we can assume that the programme had no affective impact on them, or they simply focused more on language and reading-related improvements. Erin reported experiencing no change in attitudes towards EFL reading, since she had liked reading even before the programme. The other six participants, however, mentioned some changes in the way they perceived EFL reading: they found EFL reading easier and more enjoyable, they wanted to read more in English, they found EFL learning easier and wanted to learn more English. The observed patterns of change in EFL reading motivation over the course of the 9-month programme confirm that reading motivation is in fact a complex and dynamic process and should be treated as such.

Table 1: Codes for changes in attitudes towards reading in English and EFL learning

	Interview 1	Interviews 2, 3	Interviews 4, 5
Erin	enjoys reading in English		No change in attitudes, liked it before
Tom	likes reading in English		
Eve	enjoys reading in English		No change in attitudes, liked it before EFL learning easier
Eleanor	enjoys reading in English		Want to learn more English Wants to read more in English
Alan	likes reading in English	EFL reading more enjoyable	EFL reading more enjoyable
Maureen	likes reading in English		
Elle	likes reading in English	Wants to read more in English	EFL reading more enjoyable
Trish	likes reading in English		
Ann	likes reading in English		EFL reading more enjoyable EFL reading easier
Mary	likes reading in English	EFL reading easier wants to read more in English	

Even though most of the participants were to a certain extent motivated to read in English and perceived it as something positive before the programme started, their motivation changed in very different ways. In two cases, even for the most active and proficient reader, it decreased. The interplay of different influences, dynamically changing over time, should be taken into consideration when designing reading programmes or researching reading motivation.

Perceived positive influences on EFL reading motivation

In the interviews with the participants, these codes that denote participants' perceptions about what contributed to sustaining and/or increasing their motivation to do ER were identified: sticking to the set goal, family and peer influence, home environment, ER is helpful, ER is fun and relaxing, ER is part of routine, interesting and informative materials, materials available / lack of materials in Slovene, time for reading / absence of school work, likes the language, and progress.

In the first interview after the summer holidays, two participants reported reading more than before the programme and explained that the cause was their commitment to the programme. In Alan's words: "During summer I read more. I had hardly ever read in English before, then I joined this programme and now I read more." Additionally, all participants, except for Elle, reported virtually explicit parental encouragement and support on two levels: encouraging their reading and providing or influencing the choice of reading materials. Four participants also mentioned peer influence on their reading in English, predominantly on their choice of reading materials. The home environment was mentioned in relation to the participants' preference for reading at home as opposed to reading at school. What the participants especially pointed to was the relaxed atmosphere and freedom from time pressure, which they associated with school. According to the participants, extensive reading itself was motivating for several reasons: they found it helpful, relaxing and part of the routine. The participants joined the programme because of its perceived reading and language related benefits, and when they started noticing linguistic improvement, this positively influenced their reading motivation. Similarly, eight participants stated that the fun of reading and its relaxing effect motivated them to continue with the activity. For example, they reported: "I find it more interesting. It makes me feel good" (Alan), and "I read mostly in the evening because then I go to sleep more easily" (Trish). Two participants who managed to reach the reading target over the course of the whole programme and increase their amount of reading as they proceeded with extensive reading, attributed this to the fact that they managed to fit ER into their daily routine. Materials also proved to be a very strong factor in motivation. The participants valued interesting materials above all. In most cases, the participants reported following their interests, searching for information on topics that interested them and eventually reading about them. Especially those participants who searched for materials on the internet, reported a lack of materials in Slovene or at least finding more texts in English. As Erin explained: "Because I find more in English. It makes no sense searching in Slovene and then in English as well." Closely related to this code is the availability of materials. Especially in the first third of the programme, during summer holidays, some participants reported reading in English because the materials were simply there, easily available. Since ER was a free time activity with hardly any links to the curriculum, it depended greatly on the

free time available to the participants. Voluntary reading competed not only with work for school but also with a number of other free time activities, socializing, etc. It was therefore not surprising that one of the most important factors influencing the amount of reading and the time dedicated to reading was absence of schoolwork or the amount of free time at the participants' disposal. Moreover, positive attitudes towards the English language were one of the most distinctly positive influences on EFL reading motivation. The participants, however, referred to English as a global *lingua franca*, with no explicit connection to English-speaking nations and cultures. They also associated reading in Slovene with school assignments and reading in English with their free time. Finally, almost all participants were satisfied in noticing the progress they had made, which encouraged them to read even more. The results show several factors that positively influenced EFL reading motivation. As in Nishino's (2007) and de Burgh-Hirabe's (2011) studies, perceived progress and the realisation of achievement motivated the students to read further; some also moved from graded readers (e.g. from the Reading Badge List) to authentic materials and read difficult, challenging texts (Pirih, 2017). They were motivated by the instrumental value (ER is helpful) but even more so by the intrinsic value of reading, which motivated them to pursue mastery goals (Ames, 1992), e.g. vocabulary expansion, improvement of their reading skills. An even stronger factor was the influence of family members on their reading and choice of materials, which shows the active role that parents play in their teenage children's education. The participants did not oppose this 'interference' but regarded it as acceptable, even helpful. Since they also reported favourable family attitudes towards reading, this influence confirms the findings of other researchers (Sweet, 1997; Wigfield & Guthrie, 1997) that active readers come from families that value and encourage reading and contradicts Day and Bamford's (1998) claim that the sociocultural dimension is one of the weaker influences shaping the decision to read in a FL. Similarly, materials proved to be one of the crucial factors influencing the participants' EFL reading motivation, which fits Day and Bamford's model. The participants expressed their preference for interesting and easily available authentic reading materials, which was first found in the evaluation of the programme (Pirih 2017) and confirmed in the current research. These findings stress the need to incorporate authentic printed and online materials into foreign language ER programmes. Another strong motive for reading in EFL was the positive attitude

towards English, which the participants closely linked to their free-time activities, and in this way perceived it as part of their own (sub)culture. Furthermore, most of them seemed to perceive the knowledge of English simply as an indispensable skill for citizens of the world, rather than a way to meet and learn about the English-speaking nations and cultures. Therefore, instead of referring to the Gardnerian concept of integrative motivation, which presupposes the desire to have contact with native L2 speakers and to interact with L2 cultures, this factor is better explained with Yashima's (2002, 57) term 'international posture', which includes a focus on foreign and international affairs, readiness to interact with intercultural partners, etc.

Perceived negative influences on EFL reading motivation

The following codes concerning perceived negative influences on the participants' motivational intensity to read extensively were identified: lack of time to read, busy with schoolwork, busy with free time activities, busy with family activities, and uninteresting materials. All participants faced a lack of time to dedicate to reading extensively. For most of them, that happened in the first part of the programme, during the school holidays, or at the end of the programme, the time busy with exams. The data suggest that there were roughly three causes that made the participants feel they lacked time for extensive reading: being busy with schoolwork, free time activities or family activities. An abundance of schoolwork was a problem for all the participants at least once during the programme. It turned out to be the strongest negative influence on their reading motivation in that time. Eve explained: "I read a book I borrowed from your library, about Bridget Jones. I managed to read about half of it. Then things for school started piling up, so I quit for a while." Similarly, four participants mentioned their extra-curricular activities (athletics, gymnastics, violin) and how much time they invested in these, which left less time for reading. Especially in the initial phase of the programme, i.e. during the school holidays, the participants who reported reading less in the preceding weeks said that the reason was family vacations and other family activities. Because of the voluntary nature of the programme and free choice of materials, only two participants reported having problems with uninteresting materials (not finishing books they found less interesting). The participants probably left more texts unread, however;

leaving a book unread is more memorable than changing to another website because it is not interesting. As in Nishino's (2007) and de Burgh-Hirabe's (2011) studies, among the most influential factors that shaped the course of EFL reading motivation of the participants were external demands, predominantly school-related, and distractions connected to the participants' extra-curricular and family activities. For most of them, these factors negatively influenced their reading motivation, with some exceptions. According to data from the interviews, extra-curricular activities had only a limited effect over limited periods of time, while schoolwork had a stronger impact. Even though the participants recognised the instrumental value of ER, most of them saw it as a time-consuming activity in the periods when time was invested in intensive schoolwork. If ER had been an integral part of the school curriculum with an assigned time, this negative influence might have had a weaker effect. However, this would have also limited the readers' autonomy in choosing the time and place of reading, which the participants of this ER programme valued (Pirih, 2017).

Conclusion

Despite its limitations (e.g. a relatively small, single-school sample of participants), the present study provides valuable insight into the dynamics of the EFL reading motivation of Slovene primary school pupils and the factors causing motivational changes. It was conducted within a 9-month pilot extensive reading programme, implemented by the researcher to give the participants an experience of extensive reading and test its pedagogical potential. A previous study (Pirih, 2017) has already proven that the ER approach is an effective and motivating way to teaching FL reading for primary school students. The findings of the current research confirm that EFL reading motivation is a complex and dynamic process fuelled by numerous influences that need to be considered when designing reading programmes or researching reading motivation.

The strongest factors shaping EFL reading motivation among the participants were the reading materials, the influence of family members, positive attitudes towards English, and external demands. One of the most important ingredients in successful extensive reading is clearly a selection of reading materials that goes beyond graded

readers and other printed formats. The participants' reading preferences suggest that it is of utmost importance to include online materials and authentic texts of other formats into extensive reading programmes and to give the participants autonomy in choosing what they want to read. Family influence was also recognised as a strong factor, with a powerful effect on the participants' reading, which suggests the need for further research into parental attitudes towards voluntary reading in FL and their reading behaviour. Additionally, the results show that for this age group, English is no longer only the official language of English-speaking countries and thus closely connected to the culture of English-speaking nations, but a *lingua franca* and thus to some extent a neutral and culture-free tool for communication with the whole world. Moreover, it is perceived as an integral part of their free time and their own (sub)culture. Finally, the results show that external demands and distractions result in a lack of time and thus negatively influence reading motivation. Although the participants expressed a strong preference for reading in the home environment with no time restraints, it might prove effective to include extensive reading into the school curriculum as well, for example as an uninterrupted sustained silent reading activity within EFL lessons, which might offer additional reading time to students and thus reduce the negative impact of external demands and distractions. In Slovenia, extensive reading is an approach less commonly taken, which has resulted in a lack of experience with it. Therefore, further research is needed to study the influence of extensive reading. Moreover, small-scale action research projects by Slovene teachers and professors exploring different ways of implementing extensive reading and measuring its influence would be fruitful.

References

- Aiello, J. (2016). *Read On! Evaluation Study: Academic Report*. Oxford: Oxford University Press.
- Alderson, J. C., & Urquhart, A. H. (1984). *Reading in a foreign language*. Longman Pub Group.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84 (3), pp. 261–271.
- Baker, L., & Wigfield, A. (1999). Dimensions of children's motivation for reading and their relations to reading activity and reading achievement. *Reading Research Quarterly*, 34(4), pp. 452–477.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, pp. 117–148.
- Bratož, S., & Žefran, M. (2018). Systematicity in Foreign Language Classroom Communication. *The New Educational Review*, 53(3), pp. 71–84.
- Briggs, J. G., & Walter, C. (2016). *Read On! Extensive Reading and Young Second Language Learners' Motivation and Attitudes* (unpublished report). Retrieved from

- gate.net/publication/301453032_Read_On_Extensive_Reading_and_Young_Second_Language_Learners'_Motivation_and_Attitudes (Accessed: 25th July 2019.)
- Day, R., & Bamford, J. (1998). *Extensive reading in the second language classroom*. Cambridge, UK: Cambridge University Press.
- Day, R., & Bamford, J. (2002). Top ten principles for teaching extensive reading. *Reading in a Foreign Language*, 14 (2), pp. 136–141. Retrieved from <http://nflrc.hawaii.edu/rfl/October2002/> (Accessed: 24th July 2019.)
- de Burgh-Hirabe, R. (2011). *Extensive reading and L2 reading motivation in Japanese as a foreign language: a case study of New Zealand high school students* (Doctoral dissertation). Retrieved from Otago University Research Archive (2011-05-31T23:43:56Z). (Accessed: 24th July 2019.)
- de Burgh-Hirabe, R., & Feryok, A. (2013). A model of motivation for extensive reading in Japanese as a foreign language. *Reading in a Foreign Language*, 25(1), 72–93. Retrieved from <http://nflrc.hawaii.edu/rfl/April2013/articles/deburgh.pdf> (Accessed: 24th July 2019.)
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum Press.
- Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behaviour. *Journal of Personality and Social Psychology*, 53(6), pp. 1024–1037.
- de Morgado, N. (2009). Extensive reading: Students' performance and perception. *The Reading Matrix*, 9, pp. 31–43. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.539.76-50&rep=rep1&type=pdf> (Accessed: 25th July 2019.)
- Dickinson, L. (1995). Autonomy and motivation a literature review. *System*, 23(2), pp. 165–174. Retrieved from <http://www.sciencedirect.com/science/article/pii/0346251X95000055> (Accessed: 25th July 2019.)
- Dörnyei, Z., & Ottó, I. (1998). Motivation in action: A process model of L2 motivation. *Working Papers in Applied Linguistics*, 4, pp. 43–69.
- Eccles, J. S., Adler, T. F., Futterman, R., Goff, S. B., Kaezala, C. M., Meece, J., & Midgley, C. (1983). Expectancies, values and academic behaviour. In J. T. Spence (Ed.), *Achievement and achievement motives* (pp. 75–146). San Francisco: W. H. Freeman.
- Eccles, J. S., & Wigfield, A. (1995). In the mind of the actor: the structure of adolescents' achievement task values and expectancy-related beliefs. *Personality and Social Psychology Bulletin*, 21, pp. 215–225.
- Fujita, K., & Noro, T. (2009). The effects of 10-minute extensive reading on the reading speed, comprehension and motivation of Japanese high school EFL learners. *Annual Review of English Language Education in Japan*, 20, pp. 21–30.
- Grabe, W., & Stoller, F. L. (2002). *Teaching and researching reading*. New York: Pearson Education.
- Guthrie, J. T., & Wigfield, A. (1997). Reading engagement: a rationale for theory and teaching. In J. T. Guthrie, & A. Wigfield (Eds.), *Reading engagement: motivating readers through integrated instruction* (pp. 1–12). Newark: IRA.
- Hidi, S., & Renninger, A. (2006). The Four-Phase Model of Interest Development. *Educational Psychologist*, 41(2), pp. 111–127. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.521.6334&rep=rep1&type=pdf> (Accessed: 25th July 2019.)
- Judge, P. B. (2011). Driven to read: Enthusiastic readers in a Japanese high school's extensive reading programme. *Reading in a Foreign Language*, 23(2), pp. 161–186. Retrieved from <http://files.eric.ed.gov/fulltext/EJ943535.pdf> (Accessed: 24th July 2019.)
- Krashen, S. D. (2011). *Free Voluntary Reading*. Santa Barbara: ABC-CLIO.
- Lake, J. (2014). Curious readers and interesting reads: Developing a positive L2 reading self and motivation through extensive reading. *Journal of Extensive Reading*, 2, pp. 13–27.
- Leung, C. Y. (2002). Extensive Reading and Language Learning: A Diary Study of a Beginning Learner of Japanese. *Reading in a Foreign Language*, 14(1), pp. 66–81.

- Lien, H.Y. (2010). EFL College learners' perceptions of self-selected materials for extensive reading. *The English Teacher*, 39, pp. 194–204.
- Mangen, A., & Van der Weel, A. (2016). The evolution of reading in the age of digitisation: an integrative framework for reading research. *Literacy*, 50(3), pp. 116–124.
- Mangen, A., Walgermo, B. R., & Brønnick, K. (2013). Reading linear texts on paper versus computer screen: Effects on reading comprehension. *International journal of educational research*, 58, 61–68.
- Mason, B., & Krashen, S. (1997). Extensive reading in English as a foreign language. *System*, 25(1), 91–102. Retrieved from <http://www.sciencedirect.com/science/article/pii/S03462-51X96000632> (Accessed: 23rd July 2019.)
- McCracken, R. A. (1971). Initiating sustained silent reading. *Journal of Reading*, 14 (8), pp. 521–524. Retrieved from <http://www.jstor.org/stable/40009700> (Accessed: 20th April 2014.)
- Milliner, B., & Cote, T. (2015). One year of extensive reading on mobile devices: Engagement and impressions. In F. Helm, L. Bradley, M. Guarda, & S. Thouëсны (Eds.), *Critical CALL – Proceedings of the 2015 EUROCALL Conference* (pp. 404–409). Padova, Italy: Research-publishing.net.
- Mori, S. (2002). Redefining Motivation to Read in a Foreign Language. *Reading in a Foreign Language*, 14(2). Retrieved from <http://nflrc.hawaii.edu/rfl/October2002/mori/mori.html> (Accessed: 23rd July 2019.)
- Nishino, T. (2007). Beginning to read extensively: A case study with Mako and Fumi. *Reading in a Foreign Language*, 19 (2). Retrieved from <https://files.eric.ed.gov/fulltext/EJ777744.pdf> (Accessed: 23rd July 2019.)
- Palmer, H. (1968). *The scientific study and teaching of languages*. Oxford: Oxford University Press.
- Pečjak, S., & Gradišar, A. (2012). *Bralne učne strategije*. Ljubljana: Zavod Republike Slovenije za šolstvo.
- Pečjak, S., Bucik, N., Gradišar, A., & Peklaj, C. (2006). *Bralna motivacija v šoli: merjenje in razvijanje*. Ljubljana: Zavod Republike Slovenije za šolstvo.
- Pečjak, S., & Košir, K. (2004). Pupils' reading motivation and teachers' activities for enhancing it. *Review of Psychology*, 11(1–2), pp. 11–24.
- Pečjak, S., & Peklaj, C. (2006). Dimensions of reading motivation and reading achievement in 3rd and 7th grade students. *Studia Psychologica*, 48(1), pp. 11–29.
- Pirih, A. (2015). Who says they don't read? Slovene elementary school students' reading motivation in EFL. *Journal of Elementary Education*, 8 (1–2), pp. 113–132.
- Pirih, A. (2017). Extensive reading in EFL for young Slovene teenagers : an evaluation study. In S. Bratož (Ed.), *Razsežnosti sodobnih učnih okolij = Dimensions of contemporary learning environments* (pp. 285–299). Koper: Založba Univerze na Primorskem.
- Robb, T. N., & Susser, B. (1990). EFL Extensive Reading Instruction: Research and Procedure. *JALT Journal*, 12 (2). Retrieved from <http://www.cc.kyoto-su.ac.jp/~trobb/sussrobb.html> (Accessed: 23rd July 2019.)
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25, pp. 54–67. Retrieved from <https://mmrg.pbworks.com/f/Ryan,+Deci+00.pdf> (Accessed: 24th July 2019.)
- Sani, A. M., & Zain, Z. (2011). Relating Adolescents' Second Language Reading Attitudes, Self Efficacy For Reading, and Reading Ability in a Non-Supportive ESL Setting. *The Reading Matrix*, 1 (3), pp. 243–254.
- Silva, J. P. (2009). Extensive Reading through the Internet: Is it Worth the While? *International Journal of English Studies*, 9(2), pp. 81–96. <https://revistas.um.es/ijes/article/view/90761/87561> (Accessed: 25th July 2019.)

- Sweet, A. P. (1997). Teacher perceptions of student motivation and their relation to literacy learning. In J. Guthrie, & A. Wigfield (Eds.), *Reading engagement: motivating readers through integrated instruction* (pp. 86–101). Newark, Delaware: Reading Association.
- Takase, A. (2007). Japanese high school students' motivation for extensive L2 reading. *Reading in a Foreign Language, 19*(1). Retrieved from <http://nflrc.hawaii.edu/rfl/april2007/takase/takase.html> (Accessed: 23rd July 2019.)
- Takase, A. (2016). Paper book or ebook? First trial of XReading. *The Journal of the Extensive Reading SIG of the Japan Association for Language Teaching, 9*(2). Retrieved from http://hosted.jalt.org/er/sites/jalt.org.er/files/ERJ/erj_issue_9.2.pdf (Accessed: 24th July 2019.)
- Walker, R. J. (2017). Screen versus paper: Perceptions of screen-based reading versus paper-based reading in supplementary extensive reading (SER) programmes. In G. Brooks (Ed.), *The 2016 PanSIG Journal* (pp. 348–360). Tokyo: JALT.
- Wigfield, A. (1997). Children's motivations for reading and reading engagement. In J. Guthrie, & A. Wigfield (Eds.), *Reading engagement: motivating readers through integrated instruction* (pp. 14–33). Newark, Delaware: Reading Association.
- Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breath of their reading. *Journal of Educational Psychology, 89*(3), pp. 420–432.
- Yamashita, J. (2004). Reading attitudes in L1 and L2, and their influence on L2 extensive reading. *Reading in a Foreign Language, 16*(1), pp. 1–19. Retrieved from <http://nflrc.hawaii.edu/rfl/April2004/yamashita/yamashita.html> (Accessed: 24th July 2019.)
- Yashima, T. (2002). Willingness to Communicate in a Second Language: The Japanese EFL Context. *The Modern Language Journal, 86*(1), pp. 54–66.

Author

Anja Pirih, PhD

Lecture, University of primorska, Faculty of Humanities, Titov trg 5, 6000 Koper, Slovenia, e-mail: anja.pirih@fhs.upr.si

Lektorica, Univerza na Primorskem, Fakulteta za humanistične študije. Titov trg 5, 6000 Koper, e-pošta: anja.pirih@fhs.upr.si

MOBILE PHONES AND SOCIAL BEHAVIOR AMONG MILLENNIALS – FUTURE TEACHERS

TOMAŽ BRATINA

Potrjeno/Accepted
6. 9. 2019

University of Maribor, Faculty of Education

Objavljeno/Published
9. 12. 2019

CORRESPONDING AUTHOR/KORESPONDENČNI AVTOR
tomaz.bratina@um.si

Keywords:

phubbing, nomophobia,
interpersonal
communication,
Millennials, mobile
phone, simultaneous e-
communication

Ključne besede:

phubbing, nomofobija,
medosebna
komunikacija, milenijci,
mobilni telefon, hkratna
e-komunikacija

UDK/UDC

37.06:621.395.721.5

Abstract/Povzetek The increased number of mobile devices changes the communication habits and lifestyle. Consequently, social norms and values change. Millennials define new patterns in social behavior, communication, interpersonal relationships, and interaction. Simultaneous e-communication in the presence of another person and lack or rejection of face-to-face contact are just the most common kinds of social behavior. Appropriate social behavior when using a mobile phone is crucial for Millennial future teachers, who will be teaching Millennials. The results of this study show current and changing patterns of social behavior induced by the use of mobile phones among future teachers. Ignorance, simultaneous e-communication and replacement of face-to-face contact are all present. These results also reveal the desire for close contact with a beloved person. The extensive daily use of mobile phones for about 5 hours or more is the second undesired finding among future teachers.

Uporaba mobilnih telefonov in socialni odnosi milenijcev – bodočih učiteljev Povečano število mobilnih naprav prinaša spremembe v način komunikacije in življenjskega sloga. Posledično se spreminjajo tudi družbene norme in vrednote. Generacije milenijcev prinašajo nove vzorce družbenega vedenja, komunikacije, medosebnih odnosov in interakcij. Hkratna e-komunikacija med prisotnostjo druge osebe in pomanjkanje ali zavračanje neposrednih osebnih stikov sta najpogostejša pojava. Primerno socialno vedenje ob uporabi mobilnega telefona je ključno za bodoče učitelje milenijce, ki bodo poučevali milenijce. Rezultati pričujoče raziskave kažejo na že prisotne in spremenjene vzorce družbenega vedenja, ki jih povzročata uporaba mobilnih telefonov, tudi med bodočimi učitelji. Prisotni so ignoranca, hkratna e-komunikacija, nadomestilo osebnega stika, prav tako pa tudi želja po osebnem stiku z ljubljenimi osebami. Obsežna, približno peturna vsakodnevna uporaba mobilnih telefonov, je druga neželena ugotovitev med bodočimi učitelji.

Introduction

Internet and mobile devices are an integral part of an individual's life in the modern information society. A critical component is communication, the basis of which is the internet. Communication technology enables electronic communication. The term electronic communication covers various forms of information exchange, like e-mail, text messages, faxes, and even social networking (Iannarelli & O'Shaughnessy, 2015). As used below, the term e-communication represents contemporary forms of electronic communication services involving mobile devices. As a medium, the internet provides access to information and connectivity between mobile devices. The concept of mobile devices denotes all types of mobile internet-connected devices that allow both access to information and communication between individuals or groups of individuals. The age of the users who exploit the internet as a source of information and as the means of interaction is increasingly blurred, and the age criterion can no longer be used as a dividing line. Data on the growth in the number of internet users in June 2019 show the increasing accessibility of this medium in environments that have been in a subordinate position for technological reasons. In Africa, the penetration rate of the internet reached just under 40%, in Asia nearly 52%, and Europe recorded an 86.8% penetration rate, which is close to North America with 89.4% (Internet Usage Statistics, 2019). With an increase in the number of internet users, a significant increase in the number of mobile devices is present. According to We Are Social (2017), the annual increment of mobile users is 5%, while the number of mobile devices in 2017 is just under 5 billion. In the period between 2017 and 2022, seven-fold growth in mobile data traffic is expected (Clement, 2019). Some estimates predict that in 79% of cases, the internet will be accessed from mobile devices (Worldwide Internet and Mobile Users, 2017). Young people own mobile phones even before the start of their formal education. In the meantime, the capabilities of these devices have already exceeded the original purpose and enable many other interpersonal interaction modes. Attractive software on these devices and their capacity have thus significantly changed both forms of communication and lifestyle. (Matijević & Topolovčan, 2019).

The large number of mobile devices and their use results in new social norms and a redefinition of many existing social values. When using mobile phones as communication tools, we encounter new patterns in communication between individuals, which undoubtedly affects interpersonal relationships at all levels of interaction between participants. Patterns and norms are shifting sharply in new directions with the involvement of younger generations in interpersonal interaction. Many of the usage patterns are already being incubated for these generations.

From the educational perspective, with reasonable extent and guidance, the capacities of mobile phones can be used effectively in various didactic approaches. It is imperative to be aware that what is called mobile learning is more complex than traditional forms of learning. It represents an endless combination of experiential stimuli and a digital, intangible world. (Cotič, Zuljan, & Plazar, 2019)

Mobile phones and communication

Based on statistical data, we can confirm the expansion of mobile phone usage, which has consequences from the perspective of social and cultural significance. Specific communication patterns are permanently creating or changing and consequently influencing each individual's life. A new concept of relationships is emerging, where people no longer say that they are in a relationship, but that they are connected (Ule, 2009).

Earlier views on communicating with mobile phones or mobile communications predicted such an impact on interpersonal relations. Fortunati (2007) shared the opinion that frequent mobile communication would change the depth of interpersonal communication and lead to a lack of social reciprocity. As early as 2002, Gergen (2002) believed that the prevalence of mobile phone use reduced the extent of direct social interaction in public spaces.

Now, there is virtually no place where mobile phones are not present, and the ringing of the mobile phone has become part of our everyday life. In past times, it was impolite to interrupt someone in the middle of a conversation. Unlike earlier times, people today immediately respond to a call from a mobile phone and start a

conversation with a person who is not physically present by instantly excluding the physically present person from the ongoing discussion.

The functionality of mobile phones as devices is primary and secondary. The primary function is the ability to perform voice communication. Secondary functionality utilizes technology to access information online and perform activities through dedicated software or applications. Today's mobile phones are a combination of both functionalities and are known as smartphones.

In the present article, the focus is more on the functionality that enables interpersonal communication. Therefore, the term mobile phone is used below instead of smartphone, regardless of the fact that mobile phones as simple communication devices are barely present.

The use of a mobile phone significantly influences the life and habits of an individual. From the perspective of the primary function, it enables mobility, availability and maintaining contacts. It is also essential to highlight the possibility of close personal conversations with partners or friends. The secondary and more visible functionality enables quick acquisition of information from a range of areas and social interactions. Social interactions include the use of social networks as an additional option--occasionally as virtual entertainment in case of loneliness or boredom. Secondary functionality undoubtedly means the use of many applications that facilitate day-to-day tasks and enhance the individual's efficiency.

Apart from its primary and secondary functionality, the mobile phone can also represent a status symbol for an individual. According to Kuhar (2007), the popularity of a particular brand, as well as the price range, are among the determining factors. With a choice of shape, color, and accessories, the mobile phone can also be a fashion accessory. To other people, however, the choice of a mobile phone means fulfilling technological needs or only enthusiasm for a phone's technical characteristics.

Mobile Telephony and Millennials

The primary functionality of mobile phones is becoming less important to increase capacity and application offerings on these devices. While some older users still feel certain constraints and resistance to mobile devices and communication, with the arrival of generations of young people who understand it as daily life and lifestyle, secondary functionality is continuously gaining in importance. The literature designates the contemporary generation of young people as Millennials, Generation Y, or the Net Generation. Sources describe these generations as people born between 1995 and 2012 and reaching adulthood in the 21st century (Rouse, 2014). The fact is that Millennials have already developed the skills and knowledge to use mobile phones. Millennials use mobile phones as a tool for various types of communication, accessing information, exchanging content of any kind, shopping, etc. Consequently, the secondary functionality of mobile phones is growing in extent. The Millennials' attitude toward the exploitation of mobile phones' capabilities and technology will be reflected in their later entering the workplace with more confidence and less care about regulations (Nichols & Smith, 2015).

The method of using mobile phones has changed Millennials' way of life and behavior. Owing to the imaginary necessity for keeping constant contact or availability and establishing friendly ties with as many people as possible, the negative consequences are becoming more and more frequent. These are mainly manifested on the interpersonal level. The very presence of a mobile phone causes the occurrence of a failure to establish a deeper interpersonal connection with others.

Interpersonal Relations and Mobile Telephony Habits

Mobile phones are almost regularly in use during meetings or conversations, sometimes even during sexual intercourse, thus deteriorating relationships with family and friends (Štrukelj, 2017). Mobile technology, in many cases, is a substitute for a face-to-face conversation for Millennials. Individualism grows, which can result in many problems at the level of partnership relations. Research studies mention dependence on mobile devices, but some studies suggest that this is more

a matter of lifestyle than dependency, since the mobile phone represents an essential part of the life of Millennials (Ozkan & Solmaz, 2015). One of the newly discovered patterns of social behavior is Phubbing. This new word describes the habit of ignoring someone in favor of a mobile phone (Roberts & David, 2016). In most cases, the Phubbing is present among partners. According to the research, including 450 people in the USA, the phenomenon appear regularly among about 46% of partners. Among them, about 23% have serious conflicts (Sežun, 2018).

The next phenomenon caused by extensive use of mobile phones among Millennials is Nomophobia (No Mobile Phone Phobia), the fear of being without a mobile device, or being unreachable for mobile phone contact (Arpaci, Baloglu, & Kesici, 2019). The effects of the phenomenon are severe, causing discomfort, dependence, low self-esteem, and a feeling of rejection. In some cases, it can even trigger panic disorder (King, et al., 2014). Aside from the serious disorders caused by mobile phones' extensive use, our focus should be on permanent occurrences of problematic behavior. The first of these is favoring the relation with the mobile phone by ignoring or neglecting a real person or persons who are present. Most concerning is the general acceptance of such behavior, as no one feels affected by such condition. The second concerning aspect is conscious or unconscious replacement of interpersonal contacts by indirect contacts by using a dedicated application or social networks.

From the perspective of teacher education, we need to consider a remarkable fact. Millennial pre-service teachers will soon be teaching children who are also part of this generation. Many of them already show such social behavior. Therefore, pre-service teachers must be aware of their role as educators and as living examples of appropriate social behavior. Regarding the perspective of Millennials as pre-service teachers, the focus of the present article is to describe the current state of social behavior among contemporary pre-service teachers. These pre-service teachers are students attending educational training to achieve teaching competencies required to perform lessons.

Methodology

Purpose

The study sought to gain insight into the extent of the most common social behaviors among the Millennial generation of pre-service teachers induced by the use of mobile phones. The focus of the research was on social interaction between two persons and the interaction between a person and a group of persons.

The following research questions were posed:

- What is the most common device for interpersonal communication?
- How many hours do students use mobile phones per day?
- Do students simultaneously e-communicate during face-to-face contact with another person?
- Do students simultaneously e-communicate during contact with several persons?
- Is simultaneous e-communication dependent on the number of associated persons?
- What is the preferred way of e-communication with a beloved person?
- How often do students use text messages instead of voice calls?

Selected answers were analyzed for any differences by study program.

Sample

The sample includes 185 pre-service teachers (hereafter, students) of Elementary Education and Preschool Education at the Faculty of Education in Maribor and students of Pedagogy at the Faculty of Arts in Maribor. These students were attending the first year of study in the academic year 2018/19. The average age of the students is 19 years. The structure of the sample by study program is given in Table 1.

Table 1: Students in the sample by study program

	Frequency	Percent
Elementary education	89	48.1
Preschool education	58	31.4
Pedagogy	38	20.5
Total	185	100.0

Data collection

Data were collected using the online surveying tool, which was used to provide students with the questionnaire. To exclude the eventual effect of the uncertainty of novice students, they received the questionnaires during lectures after four months of attendance. Data were processed using SPSS statistical software. The statistical methods of descriptive statistics, chi-square test, and ANOVA were used, while chosen non-parametric tests were performed for analysis of the rating scales.

Results*Devices for interpersonal communication and daily usage*

Students were asked to select the most common device they use for communication, from a list of mobile devices. After the selection of the preferred device, we asked them to estimate the extent of daily usage (in hours) for the selected device.

Table 2: Device used for interpersonal communication

	Frequency	Percent
Notebook	5	2.7
Tablet	5	2.7
Mobile phone	173	93.5
Personal computer	2	1.1
Total	185	100.0

Mobile phones are the most common device used for interpersonal communication. The results in Table 2 correspond with the theoretical background on the increasing number of mobile phones in use. Analysis of the estimated time spent using mobile phones shows an average usage time of 4.23 hours in a range from 1 hour up to 20 hours. About 46% of students estimate their use of mobile phones between 2 and 3 hours per day, where 3 hours of usage is the prevailing estimate.

Table 3: Average daily use of mobile phones in hours by study program (ANOVA)

Study program	N	Mean	Std.Dev	F
Elementary Education	89	3.74	2.377	
Preschool Education	58	4.81	2.953	2.844
Pedagogy	38	4.50	3.203	
Total	181	4.23	2.775	
P>0,05, df=2				

Table 3 gives the results of ANOVA used for the analysis of differences in the average time of daily use between study programs and shows a tendency ($P=0,060$) toward less usage among students of Elementary Education. Students estimate their daily usage between 4 and 5 hours, where 5 hours is the prevailing estimate. Students of Preschool Education and Pedagogy use mobile phones between around 4.50 and 4.80 hours per day on average. The students in the Elementary Education study program use mobile phones 3.74 hours per day on average. The results in Table 3 correspond with the research reports emphasizing average usage times between 2 and 4 hours (Kiran, Sanjana, & Reddy, 2019).

Simultaneous e-communication during face-to-face contact with another person

Simultaneous e-communication by other means like e-mail, social networks, and messaging in the presence of another person is a common type of social behavior. The students were asked to use a five-level scale to estimate how often this happens to them. The estimation scale range is from Never to Always.

Table 4: Simultaneous e-communication during face-to-face contact with another person

	Frequency	Percent
Never	25	13.5
Rare	94	50.8
Occasionally	60	32.4
Very often	6	3.2
Total	185	100.0

Simultaneous e-communication during face-to-face contact with another person is thus an established fact. The results in Table 4 show that about one-third (32.4%) of students occasionally e-communicate simultaneously despite the presence of another person. Although 50.8% do this rarely, they still do. Just 13.5% of students avoid this temptation and devote themselves to the other person. Additional analysis shows no statistically significant differences ($P=0.268$) between study programs. The students of Elementary Education (55.1%) and Pedagogy (50%) both e-communicate rarely. The students of Preschool Education are most often among the occasional simultaneous e-communicators (41.4%). The differences between study programs are not statistically significant ($P=0.730$). From the perspective of social relations, the result is far from encouraging. According to the result in Table 3 and research, we can speculate that other persons tolerate such behavior in general or do not feel affected by the situation.

Simultaneous e-communication during contact with several persons

Contact with several persons enables the opportunity for simultaneous e-communication by other means like e-mail, social networks, and messaging. Many people can hardly resist this temptation. The students were asked to use the five-level scale to estimate how often such social behavior happens to them. The estimation scale range is from Never to Always.

Table 5: Simultaneous e-communication during contact with several persons

	Frequency	Percent
Never	8	4.3
Rare	67	36.2
Occasionally	91	49.2
Very often	19	10.3
Total	185	100.0

The results in Table 5 show the presence of simultaneous e-communication during contact with several persons. In comparison with the results for a single persons' presence, we have to deal with more occasional attempts. Almost 50% of students occasionally simultaneously e-communicate when they are in contact with several persons. More than one-third (36.4%) of students do the same rarely. Slightly less than 10% of students very often take advantage of the opportunity and simultaneously e-communicate during contact. Just a handful of them never behave in this unsocial manner. The Chi-Square test shows that students of Pedagogy simultaneously e-communicate more often than other students. Most of the students who simultaneously e-communicate occasionally are from the Preschool Education program (55.2%). Nevertheless, the differences between study programs are not statistically significant ($P=0.730$).

Simultaneous e-communication by the number of associated persons

The comparison of results in Table 4 and Table 5 reveals the significantly higher frequency of occasional simultaneous e-communication during interpersonal contact. Given the presence of multiple persons, the category "Occasionally" appears in about 50% of cases and less than one-third of cases during face-to-face contact. If several persons are present, simultaneous e-communication appears "very often" in about 9.2% of cases, compared to 3.2% during face-to-face contact. According to the Wilcoxon Npar test ($Z=6,885$), differences in the occurrence of categories between types of contacts are statistically significant ($P=0.001$). Based on the result, we assume that the frequency of simultaneous e-communication is dependent on the number of persons involved in personal interaction.

Preferred ways of communication with a beloved

The previous analysis deals with interpersonal contact between less affiliated persons. We assume that contact and communication among loved ones would be more personally oriented and prefer close personal interaction. Students were asked to review the offered options and select their preferred way of communication with a beloved person or persons.

Table 6: Preferences in communication with a beloved person

	Frequency	Percent
Prefer electronic way	1	0.5
Prefer close personal contact	110	59.5
Both ways equally	14	7.6
Adapt communication to needs and possibilities	60	32.4
Total	185	100.0

Unlike the previous results about the social behavior of neglecting someone during personal contact, the preferences toward the closest person are significantly changed (Table 6). The prevailing preference (59.5%) is for close personal contact. If required, students adapt the means of communication to suit the needs and current possibilities (32.4%). Only 7.6% have no preference and communicate with a beloved person in both ways. Analysis of differences in preferences between study programs shows no statistically significant differences ($P=0.573$). Students in all study programs mostly prefer close personal contact (60% or more) or adapt the form of communication when necessary in around 35% of cases. Despite the expected individualism and introversion based on many studies, this result is very encouraging. Millennials still feel the desire for close personal contact with a beloved person. This finding is very likely the consequence of a precisely targeted question that rules out other close relatives.

Messaging instead of voice call

Communication services like text messaging, multimedia messages, or social networks are convenient tools for sending various messages. Owing to changing patterns of social behavior, such communication services are frequently in use to avoid conversation. To discover how often students use messages instead of voice conversation, they were asked to use the five-level scale to estimate how often they do this. The estimation scale range is from Never to Always.

Table 7: Sending written messages instead of voice calls by study program

Frequency of sending messages instead of voice call	Study course		
	Elementary Education	Preschool Education	Pedagogy
Rare	12 (13.5%)	7 (12.1%)	5 (13.2%)
Occasionally	32 (36.0%)	16 (27.6%)	12 (31.6%)
Very often	41 (46.1%)	32 (55.2%)	18 (74.4%)
Always	4 (4.5%)	3 (5.2%)	3 (7.9%)

The results in Table 7 show a widespread trend towards avoiding direct conversation during voice calls by sending messages of some kind. According to the sum of the frequencies, about 49.2% (n=91) of students send messages rather than have voice conversations very often. Approximately 32.4% (n=60), however, do this occasionally. The option “Never” was not selected, showing the constant presence of such behavior. Regular sending of messages instead of a voice call is most common among students of Pedagogy (74.4%), while others do the same at levels of 55.2% and 46.1%, respectively. About 36% of students of Elementary Education send messages instead of voice calls occasionally, followed by students of Pedagogy and Preschool Education. According to the Chi-square test, this behavior is not dependent on the study program. Students of all study programs show a general tendency to avoid direct personal contact, with minor deviations. The results point to the presence of negative social behavior by having direct personal contact only when necessary.

Discussion

Among these Millennial students, the mobile phone is a predominant communication device. This finding is expected, as mobile phones are multifunction devices. The findings of this research show that the students' estimated time of use corresponds with research results in similar studies. Students estimate their usage of mobile devices at more than 4.5 hours per day. In doing so, students of Pre-school Education and Pedagogy use mobile phones slightly longer than students in the Elementary Education study program. Because of the expansion in mobile phone usage, social behavior during contact with other people has also changed. Results show that users use mobile phones to e-communicate simultaneously with other people even when they are face to face with one person or more. This pattern of behavior when using mobile phones was revealed in other available research and is also present among students of the Faculty of Education and Faculty of Arts covered in our study. In analyzing the differences in such social behavior between students of study programs at both faculties, we found no statistically significant differences. The results show that students are more likely to simultaneously e-communicate with mobile phones when they are in the company of several people. The analysis of the influence of mobile phones on social behavior when communicating with a beloved person shows the predominant desire for close personal contact. If this is not possible, students adapt the communication according to the needs and possibilities. However, when conversation during phone calls is required, we discover the phenomenon of sending messages instead of having conversation. This phenomenon is present among students of all study programs.

In contrast to this phenomenon, the students of all programs equally desire close personal contact when communicating with a beloved person. This result shows that Millennial pre-service teachers still have the desire for personal contact, which is a prerequisite for successful working with children. Despite these positive findings, simultaneous e-communication during direct personal contact and avoidance of voice contact are still too often present.

References

- Arpaci, I., Baloglu, M., & Kesici, S. (2019). A multi-group analysis of the effects of individual differences in mindfulness on nomophobia. *35*(2), pp. 333–341. doi:<https://doi.org/10.1177/0266666917745350>
- Clement, J. (5. 7 2019). *Mobile internet usage worldwide - Statistics & Facts*. Retrieved from <https://www.statista.com/topics/779/mobile-internet/> (Accessed: 15th July 2019.)
- Cotič, N., Zuljan, D., & Plazar, J. (2019). The influence of ICT and experiential learning on student's attitudes. *The Journal of Elementary Education*, *12*(1), 27–48.
- Digital in 2017: Global overview*. (24. 1. 2017). (We Are Social Ltd) Retrieved from <https://wearesocial.com/special-reports/digital-in-2017-global-overview> (Accessed: 15th July 2019.)
- Fortunati, L. (2007). *Mobilnik kot četrta komunikacijska revolucija*. Ljubljana: FDV.
- Gergen, J. K. (2002). *The challenge of absent presence*. Cambridge: Cambridge University Press.
- Iannarelli, J. G., & O'Shaughnessy, M. (2015). The Technical Side. (J. G. Iannarelli, & M. O'Shaughnessy, Ured.) *Information Governance and Security*, pp. 91–106. doi:<https://doi.org/10.1016/B978-0-12-800247-6.00007-8>
- Internet Usage Statistics*. (16. 7 2019). Retrieved from <https://www.internetworldstats.com/stats.htm> (Accessed: 15th July 2019.)
- King, A. L., Valenca, A. M., Silva, A. C., Sancassiani, F., Machado, S., & Nardi, A. E. (2014). “Nomophobia”: Impact of Cell Phone Use Interfering with Symptoms and Emotions of Individuals with Panic Disorder Compared with a Control Group. *Clinical Practice & Epidemiology in Mental Health: CP & EMH*, *10*, 28–35. doi:10.2174/1745017901410010028
- Kiran, S., Sanjana, J., & Reddy, N. J. (1 2019). *Mobile Phone Addiction: Symptoms, Impacts and Causes-A Review*. Retrieved from https://www.researchgate.net/publication/330521664_Mobile_Phone_Addiction_Symptoms_Impacts_and_Causes-A_Review (Accessed: 17th July 2019.)
- Kuhar, M. (2007). Vpliv mobilne tehnologije na medosebne odnose in sebstvo. V V. Vehovar, *Mobilne refleksije*. Ljubljana: Založba FDV.
- Matijević, M., & Topolovčan, T. (2019). Informal learning among teenagers through video games: a qualitative analysis of experiences, game modes and didactic benefits. *Journal of Elementary Education*, *12*(1), pp. 1–26.
- Nichols, T., & Smith, T. J. (2015). Understanding the Millennial Generation. *Journal of Business Diversity*, *15*(1), pp. 39–46.
- Ozkan, M., & Solmaz, B. (2015). MOBILE ADDICTION OF GENERATION Z AND ITS EFFECTS. *6th World conference on Psychology Counseling and Guidance* (str. 92-98). Antalya: Elsevier Ltd. doi:10.1016/j.sbspro.2015.09.027
- Roberts, J. A., & David, M. E. (2016). My life has become a major distraction from my cell phone Partner phubbing and relationship satisfaction among romantic partners. (M. Guittou, Ured.) *Computers in Human Behavior*, *45*, pp. 134–141. doi:<https://doi.org/10.1016/j.chb.2015.07.058>
- Rouse, M. (2014). *Millennials (Generation Y)*. Retrieved from <https://whatis.techtarget.com/definition/millennials-millennial-generation> (Accessed: 17th July 2019.)
- Sežun, J. (2018). *Uknimo telefonske zombije!* Retrieved from : <https://revijazarja.si/clanek/odklenjeno/59cdf7daacb7c/uknimo-telefonske-zombije> (Accessed: 18th July 2019.)
- Štrukelj, M. (2017, marec 16.). *Vpliv mobilne tehnologije na medosebne odnose*. Retrieved from <http://www.zdravstvena.info/http://www.zdravstvena.info/preventiva/vpliv-mobilne-tehnologije-na-medosebne-odnose.html> (Accessed: 18th July 2019.)
- Ule, M. (2009). *Psihologija komuniciranja in medosebnih odnosov*. Ljubljana: Fakulteta za družbene vede.

Worldwide Internet and Mobile Users. (1. 12. 2017). Retrieved from: [https://www.emarketer.com/Report/Worldwide-Internet-Mobile-Users-eMarketers-Updated-Estimates Forecast-20172021/2002147](https://www.emarketer.com/Report/Worldwide-Internet-Mobile-Users-eMarketers-Updated-Estimates-Forecast-20172021/2002147) (Accessed: 15th July 2019.)

Author

Tomaz Bratina, PhD

Assistant professor, University of Maribor, Faculty of Education, Koroška cesta 160, 2000 Maribor, Slovenija, e-mail: tomaz.bratina@um.si

Docent, Univerza v Mariboru, Pedagoška fakulteta, Koroška cesta 160, 2000 Maribor, e-pošta: tomaz.bratina@um.si

TEMPERAMENT PREDŠOLSКИH OTROK V POVEZAVI Z NJIHOVIM SOCIALNIM VEDENJEM

TJAŠA ROLA¹ & KARIN BAKRAČEVIČ¹

Potrjeno/Accepted
9. 9. 2019

¹ Univerza v Mariboru, Filozofska fakulteta, Slovenija

Objavljeno/Published
9. 12. 2019

KORESPONDENČNI AVTOR/CORRESPONDING AUTHOR
tjasa.rola@gmail.com

Ključne besede:
temperament, socialno
vedenje, predšolski
otroci

Key words:
temperament, social
behaviour, pre-school
children

UDK/UDC
159.923.4:316.62-053.4

Povzetek/Abstract Namen naše raziskave je pojasniti vlogo otrokovega temperamenta v njegovem čustvenem in socialnem prilagajanju. Podatke smo pridobili z *Vprašalnikom o socialnem vedenju otrok* in z *Vprašalnikom o otrokovem temperamentu*. V raziskavo je bilo vključenih 144 otrok, starih od 36 do 79 mesecev. Rezultati so pokazali tendenco, da se živahnost pozitivno povezuje s pozunanjenjem težav, vendar ne statistično pomembno. Pokazalo se je, da so otroci, ki izražajo več negativnega čustvovanja, tudi bolj anksiozni, nismo pa potrdili pomembne povezave med negativnim čustvovanjem in agresivnostjo. Ugotovili smo, da se plašnost pozitivno povezuje s ponotranjenjem težav, prizadevni nadzor pa s socialno kompetentnostjo in sodelovanjem z odraslimi.

Temperaments of Preschool Children Relating to Their Social Behavior

The aim of this research is to explain the role of a child's temperament in his emotional and social adaptation. The data was obtained with the Social Competence and Behavior Evaluation Scale and the Children's Behavior Questionnaire. The study included 144 children aged between 36 and 79 months. The results show a tendency for surgency to be positively associated with the externalisation of problems, but the relation was not statistically significant. It was established that children who express more negative affectivity are also more anxious; however, it was not possible to confirm the statistical significance of the relation between negative affectivity and aggressiveness. The results also show that shyness is positively associated with the internalisation of problems and effortful control of social competence and cooperation with adults.

Uvod

Učni nastopi so v Sloveniji, tako kot v nekaterih drugih državah (Kovač Cerović idr., 2015), ena od uveljavljenih oblik praktičnega pedagoškega usposabljanja bodočih vzgojiteljev, učiteljev pa tudi nekaterih svetovalnih delavcev za vse ravni in vrste šol. Praviloma so učni nastopi vključeni v specialne didaktike posameznih predmetnih področij in pogosto pomenijo prvo izkušnjo študentov z njihovo bodočo poklicno vlogo. Na Pedagoški fakulteti Univerze v Ljubljani (v nadaljevanju: PEF UL) se bodoči učitelji usposablajo za poučevanje vsaj dveh učnih predmetov, nekateri, npr. razredni učitelji ter specialni in rehabilitacijski pedagogi, pa za sedem ali več predmetov. Specialni didaktiki v strokovnem razvoju predmetnih področij prihajajo do različnih strokovnih rešitev, ki se odražajo tudi v Z raziskavo smo želeli pojasniti vlogo otrokovega temperamenta v njegovem čustvenem razvoju in socialnem prilagajanju. Raziskati smo želeli pomembne povezave med določenimi temperamentnimi značilnostmi in socialnimi izidi, ki pomembno vplivajo na otrokov razvoj.

Sanson in sodelavci (2004) temperament opredeljujejo kot prirojene individualne razlike v vedenjskih stilih, ki so vidne od zgodnjega otroštva. Rothbart in Bates (2006) trdita, da temperament predstavlja čustveno, aktivacijsko in pozornostno jedro osebnosti, medtem ko Rothbart in Derryberry (1981) temperament definirata kot prirojene/konstitucionalne individualne razlike v reaktivnosti (angl. *reactivity*) in samoregulaciji. Pojem »prirojen« se nanaša na biološke osnove temperamenta. Reaktivnost se nanaša na to, kako hitro in v kolikšni meri pri posamezniku izzovemo čustva, motorično aktivnost in pozornost. Del reaktivnosti vključuje težnje *ke*, *vstran od* ali *proti* novim ali izzivajočim dražljajem. Reaktivnost se prav tako nanaša na usmerjanje pozornosti na notranje in zunanje dražljaje (Rothbart, 2011). Večina konceptualizacij temperamenta poudarja, da so temperamentne značilnosti genetske, vendar se lahko spremenijo z izkušnjami (Compas, Connor-Smith in Jaser, 2004). Temperament tako skupaj z izkušnjami »raste« v osebnost, ki nato vsebuje otrokove razvojne kognicije o sebi, o drugih in o fizičnem ter socialnem svetu, prav tako pa njegove vrednote, vedenja in strategije spoprijemanja z izzivi in težavami (Rothbart, 2007).

Dimenzije temperamenta

Najbolj znanih je 9 dimenzij temperamenta, ki sta jih odkrila Thomas in Chess (1977), in sicer: raven dejavnosti, približevanje/umik, moč odzivanja, prag odzivnosti, prilagodljivost, ritmičnost, kakovost razpoloženja, obseg pozornosti in vztrajnost ter odkrenljivost.

V zadnjem času pa psihometrične raziskave spreminjajo našete kategorije (Rothbart in Bates, 2006). Vseprošno sprejete kategorije v zadnjem obdobju so reaktivnost ali negativno čustvovanje (razdražljivost, negativno razpoloženje in zelo intenzivne negativne reakcije), samoregulacija (ima dve podkomponenti: *prizadevni nadzor pozornosti* – vztrajnost, osredotočena pozornost, in *prizadevni nadzor čustev* – samopomirjanje), tretja pa je približevanje/umik oz. inhibicija/sociabilnost – opisuje težnjo k približevanju novim situacijam in ljudem ali nasprotno – umik od naštetega in previdnost (Sanson idr. 2004).

Dosedanje raziskave, ki so za merjenje temperamenta uporabile *Vprašalnik o otrokovem temperamentu* (angl. Children's Behaviour Questionnaire – CBQ) avtorjev Rothbart, Ahadi, Hershey in Fisher (2001), so identificirale tri široke dimenzije temperamenta: prizadevni nadzor, negativno čustvovanje in živahnost (angl. *surgency*). Faktor *živahnost* zajema lestvice visoka raven dejavnosti, pozitivno pričakovanje, zadovoljstvo ob močni stimulaciji, impulzivnost, smeh in nizko izraženo plašnost. Konstrukt je zelo podoben faktorju ekstravertnost (Evans in Rothbart, 2007; Putnam in Rothbart, 2006). Raziskovalci poročajo o precejšnji stabilnosti živahnosti in njegovih komponent od zgodnjega razvoja (Rothbart in Bates, 2006).

Faktor *negativno čustvovanje* zajema frustracijo, neugodje, nizko sposobnost pomirjenja, strah in žalost. Novorojenčki kažejo relativno nediferencirane distrese, kasneje pa je mogoče razlikovati med jezo/frustracijo in strahom (Rothbart, 2011). Putnam in Rothbart (2006) navajata, da je faktor negativno čustvovanje konceptualno podoben nevroticizmu.

Faktor *prizadevni nadzor* zajema lestvice osredotočanje pozornosti, nadzor inhibicije, zadovoljstvo ob šibki stimulaciji in zaznavno občutljivost. Compas in sodelavci (2004) prizadevni nadzor definirajo kot nagnjenost k osredotočanju pozornosti in/ali zaznavni občutljivosti. Putnam in Rothbart (2006) navajata, da je faktor *prizadevni nadzor* primerljiv z vestnostjo/nadzorom. Ima osrednjo vlogo v samoregulaciji čustev, na primer, ko ljudje občutijo (ali predvidijo, da bodo občutili) negativna čustva, lahko uporabijo procese pozornosti, kot so odvrčanje in preusmerjanje pozornosti na nekaj drugega ali pa zgolj prekinijo dotok dražljaja, ki vzbuja strah (Eisenberg idr., 2001). Otroci, mladostniki in odrasli, ki imajo visoko izražen prizadevni nadzor, so nagnjeni k nižje izraženemu negativnemu čustvovanju, kar je v skladu z idejo, da je pozornost uporabna pri uravnavanju čustev (Rothbart in Sheese, 2007). Prizadevni nadzor ima pomembno vlogo v odnosu med živahnostjo in socialnimi odnosi v predšolskem obdobju. Eisenberg (2012) povzema, da se prizadevni nadzor povezuje z optimalnim razvojem že v zgodnjih petih letih življenja.

Socialno vedenje otrok

Že pri dveh letih in pol lahko otrokovo socialno vedenje opišemo z različnimi dimenzijami. Te opisujejo otrokovo splošno čustveno prilagajanje, socialne interakcije z vrstniki in socialne interakcije z odraslimi (LaFreniere, Dumas, Zupančič, Gril in Kavčič, 2001).

Čustveno prilagajanje otrok

Otrokovo splošno čustveno prilagajanje lahko po LaFreniere in sodelavkah (2001) opišemo s tremi bipolarnimi dimenzijami: *veselje – potrnost*, *zaupljivost – anksioznost* in *strpnost – jeza*. S prvo bipolarno dimenzijo opisujemo otrokovo splošno razpoloženje. Druga dimenzija opisuje raven, do katere se otrok počuti varnega v skupini. Tretja dimenzija pa opisuje otrokovo učinkovitost pri spoprijemanju z izzivi in s frustracijami v skupini.

Socialne interakcije otrok z vrstniki

Odnosi so prizma, skozi katero se otrok uči o svetu (Thompson in Happold, 2002). Značilnosti otrokove interakcije z vrstniki se po LaFreniere in sodelavkah (2001) odražajo na treh dimenzijah: *vključevanje – osamljenost, mirnost – agresivnost* in *prosocialnost – egoizem*. Prva dimenzija opisuje, v kolikšni meri se otrok obnaša kot del svoje vrstniške skupine. Druga odraža mero, do katere se otrok obnaša agresivno do svojih vrstnikov in kakšni so njegovi odnosi do njih, zlasti v konfliktnih situacijah. Dimenzija *prosocialnost – egoizem* pa opisuje otrokovo sposobnost upoštevanja perspektive vrstnikov in vedenje, ki izraža občutljivost na potrebe in želje drugih.

Zgodnje interakcije z vrstniki lahko na otroke vplivajo pozitivno ali negativno (Hartup, 1996). Na primer, negativne interakcije se povezujejo z agresivnostjo, plašnostjo, negativnim samozaznavanjem in neubogljivostjo. Po drugi strani pa lahko pozitivni odnosi z vrstniki v predšolskem obdobju povečajo otrokovo pripravljenost za šolo (»maranje šole«) in socialno kompetentnost, uravnavanje čustev in kognitivne sposobnosti (Ladd, Coleman in Kochenderfer, 1997). Sociokulturno naravnani avtorji v spremljanju in razumevanju otrokovega razvoja poudarjajo, da se moramo zavedati vpliva socialnega okolja na otroka – torej tega, kako socialni kontekst, v katerem otrok vzpostavlja interakcije, vpliva na njegovo vedenje in vedenje drugih otrok (Rutar, 2013). Thomas in Chess (1977) povzemata, da socialni odnosi z vrstniki pogosto predstavljajo prvo pomembno družbeno zahtevo za otroke po procesu socializacije znotraj svoje družine. Walker (2001) trdi, da temperament v zgodnjem otroštvu veliko prispeva h kvantiteti in kvaliteti otrokovih odnosov z vrstniki. Dodaja, da tisti otroci, ki so jih vrstniki zaradi temperamentnih značilnosti že v osnovi zavrnil, nimajo možnosti za razvoj učinkovitih medosebnih veščin, ki so potrebne za zrelo in kompetentno socialno vedenje.

Vstop v vrtec za večino otrok predstavlja kvalitativno novo situacijo in izkušnjo, s katero se mora soočiti. Temperamentni vzorci namreč imajo pomembno vlogo v dinamiki prilagoditve. Skupina vrstnikov prav tako kaže in pričakuje drugačne standarde vedenja kot starši. Otrok se mora tako prvič soočiti z novimi in

zahtevnimi življenjskimi situacijami brez stalne prisotnosti in pomoči staršev, kot je bil sicer navajen v zgodnjem adaptacijskem procesu znotraj družine. Interakcije z vrstniki v zgodnjem otroštvu so izjemno pomembne za oblikovanje pozitivne razvojne poti, zato je prepoznavanje otrokovih značilnosti, ki lahko prispevajo h kakovosti odnosa z vrstniki, dobro poznati in jih razumeti (Acar, Rudasill, Molfese, Torquati in Prokasky, 2015).

Socialne interakcije otrok z odraslimi

LaFreniere in sodelavke (2001) razlikujejo dve dimenziji, s katerimi lahko opišemo otrokove socialne interakcije z odraslimi: *sodelovanje – nasprotovanje* in *samostojnost – odvisnost*. Prva dimenzija opisuje, v kolikšni meri otrok sodeluje v interakcijah z odraslimi, druga pa odraža otrokovo raven samostojnosti v vrtcu oz. šoli. Vzgojitelji so eni izmed pomembnejših odraslih v življenju predšolskega otroka, saj veliko otrok večino delovnih dni preživi v vrtcih ali drugih oblikah varstva. Prav zato je za otroke ključen odnos z vzgojitelji, hkrati pa predstavlja potencialni vir za krepitev razvojnih izidov. Odnos med otrokom in vzgojiteljem lahko krepi otrokov razvoj ter podpira njegovo učno izkušnjo na način, da vzgojitelj otroku zagotovi socialno oporo in čustveno varnost. Oren in Jones (2009) sta v raziskavi ugotovila, da na odnos vzgojitelja z otroki vpliva otrokov temperament. Vsekakor pa vplivajo tudi drugi dejavniki, eden izmed njih je tudi temperament vzgojitelja.

Socialna kompetentnost otrok

Večina konceptualizacij socialno kompetentnost definira kot stopnjo učinkovitosti v socialnih interakcijah z drugimi (Fabes, Gaertner in Popp, 2006). Wine in Smye (1981, v Walker, 2001) pa navajata, da kompetentno vedenje zajema sposobnost za oblikovanje vedenjskih odgovorov, ki ustrezajo situacijskim zahtevam socialnega okolja. Katz in McClellan (1991) poročata, da socialna kompetentnost večinoma zajema sposobnost za začenjanje pogovora in medsebojno vzdrževanje odnosov z vrstniki. Fabes in sodelavci (2006) so ugotovili, da se socialno kompetentni otroci pogosto igrajo z drugimi otroki in uživajo v socialnih interakcijah, vrstniki pa se z njimi radi igrajo. Pomembno je poudariti, da pridobivanje spretnosti socialne kompetentnosti v zgodnjem otroštvu povečuje otrokov uspeh v družbenem okolju

zunaj doma (Yoleri, 2014). Še pomembneje je, da lahko razvijanje socialne kompetentnosti v predšolskem obdobju zmanjša verjetnost pojava čustvenih in vedenjskih težav, kot je ponotranjenje in pozunanjenje težav (Sanson idr., 2004; Rubin, Bukowski in Parker, 2006; Bornstein, Hahn in Haynes, 2010).

Fabes in sodelavci (2006) trdijo, da zgodnje otroštvo predstavlja občutljivo obdobje v razvoju socialne kompetentnosti, ker se prav v tem obdobju večina otrok sooča z velikimi skupinami vrstnikov in drugih ljudi, ki niso člani družine. V teh situacijah se morajo sami braniti in poskrbeti zase.

Ponotranjenje in pozunanjenje težav pri otrocih

Ponotranjenje težav predstavljajo vsa vedenja, ki izvirajo iz negativnosti in se usmerijo navznoter, npr. v obliki depresije, anksioznosti, plašnosti. Vidmar in Zupančič (2006) otroke, ki imajo težave ponotranjenja, opisujejo kot potrte, anksiozne, osamljene v vrstniški skupini in starosti neprimerno odvisne od odraslih.

Pozunanjenje težav pa zajema vsa vedenja, ko posameznik svoje občutke usmerja navzven, v obliki agresivnosti, hiperaktivnosti. Vidmar in Zupančič (2006) opisujeta, da otroci, pri katerih prevladuje izražanje jeze, agresivnost in egoizem v odnosu do vrstnikov ter nasprotovanje odraslim, kažejo vedenje pozunanjenja. Obe vrsti vedenja se lahko z razvojem stopnjujeta in se razvijeta v težave ponotranjenja oz. pozunanjenja. Slednje se pri otrocih pogosto pojavlja sočasno in predstavlja dve različni vrsti vedenjskih težav. Razlike se pojavijo v vrstah čustev in regulacij, ki ju označujejo. Otroci, ki ponotranjijo težave, so nagnjeni k žalosti ter izražajo nizko stopnjo prizadevnega nadzora in impulzivnosti. Prav tako izražajo nižjo stopnjo regulacije pozornosti (Eisenberg idr., 2001). Pozunanjenje težav se nanaša na moteče, agresivno in hiperaktivno vedenje (Rothbart, 2007). V splošnem so otroci, ki pozunanjijo težave, relativno nekontrolirani (angl. *undervcontrolled*).

Kot zadnja lestvica po LaFreniere in sodelavkah (2001) pa splošno prilagajanje odraža prispevek vseh 80 postavk, ki sestavljajo *Vprašalnik o socialnem vedenju otrok*. Lahko jo interpretiramo kot splošno mero otrokovega prilagajanja v skupini v vrtcu oz. šoli. Otroci, ki dosežejo visok rezultat, so v splošnem bolj prilagojeni.

Temperament in pozunanjenje ter ponotranjenje težav pri otrocih

Dve glavni dimenziji neprilagojenosti ali psihopatologije sta *pozunanjenje težav*, kamor spadata agresivnost in neupoštevanje pravil, ter *ponotranjenje težav*, kar predstavljata anksioznost in depresija (Zentner in Bates, 2008). Veliko raziskav ugotavlja povezave med pozunanjenjem in ponotranjenjem težav s temperamentnimi značilnostmi. Živahnost se povezuje z večjim pozunanjenjem težav (angl. *acting out*) in z manjšim ponotranjenjem težav: strah, žalost, nizka samopodoba (Rothbart, 2007). Negativno čustvovanje (Schermerhorn in Bates, 2012) napoveduje ponotranjenje težav (strah, depresija) in pozunanjenje težav (agresivnost, neupoštevanje pravil). Schwartz, Snidman in Kagan (1996) so izvedli longitudinalno raziskavo, v kateri so ocenjevali inhibicijo malčkov, starih 21 ali 31 mesecev; kasneje, v obdobju mladostništva, pa so ocenjevali njihovo socialno vedenje (pozunanjenje težav, delinkventno vedenje, agresivno vedenje). Rezultati so pokazali, da so mladostniki, ki so kot dvoletniki izražali nižje vrednosti inhibicije oz. so bili bolj neinhibirani (angl. *uninhibited*), 12 let kasneje izražali več pozunanjenja težav kot tisti dvoletniki, ki so bili ocenjeni kot inhibirani. Drugo raziskavo sta Kagan in Snidman izvedla leta 1999, ko sta preučevala vpliv temperamentnih faktorjev na razvoj anksioznih simptomov pri otrocih in mladostnikih. Ugotovila sta, da se temperament (predvsem reaktivnost – v nadaljevanju negativno čustvovanje – in inhibicija) povezuje s ponotranjenjem težav, čeprav veliko otrok, ki so inhibirani v zgodnjem otroštvu, ne kažejo kasnejših težav ponotranjenja. Ugotovila sta še, da približno tretjina otrok, ki so inhibirani v zgodnjem otroštvu, kaže resne znake socialne anksioznosti v mladostništvu.

Negativno čustvovanje in slaba samoregulacija sta glavna razloga za razvoj pozunanjenja težav; inhibicija/plašnost pa naj bi bila zaščitna dejavnika v razvoju vedenj pozunanjenja (Sanson in Smart, 2004). Otroci, ki so družabni in imajo slabo kontrolo, imajo višje izraženo pozunanjenje problemov kot družabni otroci, ki imajo dobro kontrolo (Rubin, Coplan, Fox in Calkins, 1995). Strah napoveduje večje ponotranjenje težav, težave s samoregulacijo pa napovedujejo pozunanjenje težav (Rothbart, 2011). Nizka izraženost prizadevnega nadzora konsistentno in močno napoveduje pozunanjenje težav in nekoliko manj močno napoveduje ponotranjenje težav (Rothbart, 2007). Nizko izražena socialna kompetentnost

predšolskih otrok pomembno napoveduje dolgotrajno ponotranjenje in pozunanjenje težav (Bornstein idr., 2010). Otrokova neobvladljivost v zgodnjem otroštvu se specifično povezuje s kasnejšimi težavami pozunanjenja (Rothbart in Bates, 1998). Temperamentna plašnost in vedenjska inhibicija pa se v zgodnjem otroštvu povezujeta z otrokovim vedenjem ponotranjenja (Coplan in Rubin, 1998). Obstaja tudi pozitivna povezanost med plašnostjo in ponotranjenjem težav, saj otroci s ponotranjenjem težav izražajo svoje vedenje kot plašnost (Eggum-Wilkens, Valiente, Swanson in Lemery-Chalfant, 2014). V zadnjih dveh desetletjih so raziskovalci odkrivali, kako se dimenzije temperamenta povezujejo z razvojem vedenjskih motenj. Ugotovili so veliko povezav med temperamentom v otroštvu in ponotranjenjem ali pozunanjenjem težav v zgodnji adolescenci (Rothbart, 2011). Eisenberg in sodelavci (2001) so izvedli raziskavo, katere namen je bil ugotoviti odnos različnih tipov negativnih čustev in regulacije s težavami ponotranjenja in pozunanjenja pri otrocih, starih od 55 do 97 mesecev. Ugotovili so, da otroci, ki pozunanjijo težave, izražajo visoko stopnjo jeze in so do neke mere nagnjeni k žalosti. Zanje je značilen nizek prizadevni nadzor. Prav tako so rezultati raziskave pokazali, da ti otroci izražajo nizko stopnjo uravnavanja pozornosti in inhibitorne kontrole ter visoko stopnjo impulzivnosti v primerjavi s kontrolno skupino. Murray in Kochanska (2002) sta izvedli štiriletno longitudinalno raziskavo – od malčka do zgodnjih šolskih let. Rezultati so pokazali, da se nizko izražen prizadevni nadzor povezuje z vedenji pozunanjenja, kot so agresivnost, brezbržnost in hiperaktivnost. S povezavo med prizadevnim nadzorom in pozunanjenjem težav so se ukvarjali tudi Valiente in sodelavci (2003). Povezave med spremenljivkami so raziskovali v longitudinalni raziskavi, saj so otroke spremljali skozi obdobje šestih let. Tudi tukaj so rezultati pokazali, da se prizadevni nadzor negativno povezuje s pozunanjenjem težav. Izsledke razlagajo tako, da so otroci, ki imajo visoko izražene vrednosti prizadevnega nadzora, sposobni uravnati svoje vedenje in posledično manj pozunanjijo težave.

V nadaljevanju bodo še podrobneje opisane povezave med temperamentnimi značilnostmi in tremi glavnimi vedenji ponotranjenja in pozunanjenja težav, to so: anksioznost, depresivnost in agresivnost.

Anksioznost in depresivnost pri otrocih

Sanson in sodelavci (2004) so v svoji metaanalizi zaključili, da inhibicija napoveduje anksioznost in depresijo. Raziskava avtorjev Merikangas, Swendsen, Preisig in Chazan (1998) je pokazala, da se tako pri otrocih (7–17 let) kot pri odraslih anksioznost in depresija povezuje z nizko izraženo prilagojenostjo in nizkim rezultatom na lestvici približevanje/umik. Drugi avtorji so odkrili, da se visoko izražena vedenjska inhibicija povezuje z visoko izraženo anksioznostjo in depresije pri šolskih otrocih (Muris, Meesters in Spinder, 2003). Notranja anksioznost ali občutki negotovosti lahko ovirajo spontano družbeno sodelovanje, to pa lahko vodi v nizko izražanje socialnih spodbud (Asendorpf, 1990).

Agresivnost pri otrocih

Glede na Rothbart in Bates (2006) ter Fabes in sodelavci (1999) se negativno čustvovanje povezuje z agresivnostjo. Regulacija se negativno povezuje z agresivnostjo in negativizmom (Fabes idr., 1999). Negativno čustvovanje in približevanje/umik (odgovor na nove predmete ali osebe) imata pomembno napovedno vrednost za jezo/agresivnost; podlestvica je v raziskavi merila pokazatelje pozunanjenja težav vključno s kljubovanjem odraslim, izražanjem nekompatibilnega in agresivnega vedenja v odnosih z vrstniki (Yoleri, 2014). Kombinacija živahnosti in nizke izraženosti prizadevnega nadzora se povezuje s povišanjem kortizola in posredno vpliva na agresivne interakcije z vrstniki (Gunnar, Sebanc, Tout, Donzella in Van Dulmen, 2003).

Temperament in socialne interakcije otrok

a.) Interakcije otrok z vrstniki

Raziskovalci so v zadnjih letih potrdili, da so otroci, ki nimajo ustreznih ali »tipičnih« odnosov z vrstniki, v nevarnosti, da bodo kasneje v življenju neprilagojeni (Rubin, Bowker in Kennedy, 2009). Obstaja veliko raziskav, ki potrjujejo povezavo med zgodnjim temperamentom in kasnejšimi odnosi z vrstniki (predvsem socialni umik). Veliko raziskav kaže na to, da temperament neposredno vpliva na odnose z vrstniki,

najpogosteje (Sanson idr., 2004) pa inhibicija napoveduje umik od vrstnikov (prav tako pa anksioznost in depresijo). Mlajši otroci, ki imajo visoko izraženo plašnost ter jih je strah novih situacij in ljudi, so tudi bolj verjetno nepriljubljeni pri vrstnikih (Dunn in Cutting, 1999; Rubin idr., 2009). Nadzor inhibicije in osredotočanje pozornosti se namreč obratno povezuje s konflikti z vrstniki. Osredotočanje pozornosti pa se pozitivno povezuje z družabnostjo, komunikacijo in asertivnostjo v odnosih z vrstniki (Acar idr., 2015). Na otrokove interakcije z vrstniki vplivajo multipli faktorji, kot so otrokova socialna kompetentnost in prosocialno vedenje, okoliščine in temperamentne značilnosti (Eivers, Brendgen, Vitaro in Borge, 2012). Kombinacija živahnosti in nizke izraženosti prizadevnega nadzora se povezuje s povišanjem kortizola, to pa posredno vpliva na agresivne interakcije z vrstniki in z zavračanjem s strani vrstnikov (Gunnar idr., 2003). Rubin in sodelavci (2009) trdijo, da otroci, ki so socialno vključeni in socialno kompetentni, delujejo z drugimi na način, ki omogoča vzpostavitev in vzdrževanje pozitivnih odnosov. Nasprotno pa otroci, ki so manj socialno kompetentni in vključeni, pogosto trpijo zaradi zavračanja s strani vrstnikov in osamljenosti.

b.) Interakcije otrok z odraslimi

Prizadevni nadzor se pozitivno povezuje s tem, da ima otrok rad šolo, sodeluje v razredu in ima dober odnos z vzgojiteljem (Valiente idr., 2012). Razvoj prizadevnega nadzora pomaga otrokom upoštevati zahteve odraslih, odložiti zadovoljitev potreb in uravnavati impulze (Fox in Calkins, 2003), to pa pripomore k boljšim odnosom z odraslimi.

Nekateri avtorji zagovarjajo tezo, da imajo otroci, ki so bolj inhibirani, manj možnosti za interakcije z drugimi, tako z vrstniki kot z odraslimi, predvsem če so deležni preveč zaščitniškega starševstva. Zaradi omejenih interakcij bodo imeli manj možnosti, da se naučijo učinkovite interakcije z drugimi (Sanson idr., 2004).

Temperament in socialna kompetentnost otrok

Razlike v bioloških značilnostih, predvsem temperamentu, so odgovorne za razlike v procesih, ki podpirajo ali ovirajo socialno kompetentno vedenje. Različna vedenja, ki so odvisna od temperamenta (vedenjski stili, ki odsevajo razlike v samoregulaciji, motoriki in pozornosti ter vzorci samoregulacije), imajo potencial, da vplivajo na otrokove sposobnosti za oblikovanje pozitivnih odnosov (Fabes idr., 2006). Kompetentni otroci so nagnjeni k izražanju pozitivnih čustev, imajo razvit sistem regulacije in kontrole v socialnih interakcijah in iščejo bližino drugih ter se interakcijam ne izogibajo (Eisenberg, 2002; Biederman idr., 2001). To pomeni, da imajo otrokove temperamentne značilnosti potencial, da vplivajo na njihovo socialno kompetentnost (Fabes idr., 2006). Otroci, ki imajo visoko izražen prizadevni nadzor, se odzivajo bolj kompetentno kot otroci z nižje izraženim prizadevnim nadzorom (Fabes idr., 1999). Nizko izražena socialna kompetentnost predšolskih otrok pomembno napoveduje dolgotrajno ponotranjenje in pozunanjenje težav (Bornstein idr., 2010). Sanson in sodelavci (2004) v svoji metaanalizi povzemajo, da se pozitivni vidiki temperamenta (nizko negativno čustvovanje, visoka samoregulacija) povezujejo s socialno kompetentnostjo.

Model ujemanja socialnega okolja s temperamentom

Otrokov temperament in okolje medsebojno vplivata na vedenje in razvojne izide. Optimalni izidi se pojavijo, ko se otrokove temperamentne značilnosti ujemajo z zahtevami okolja (angl. *good fit*) (Hipson in Séguin, 2017). Model ujemanja sta predlagala Thomas in Chess (1977) in ga poimenovala *model ujemanja socialnega okolja s temperamentom* (angl. *goodness of fit*). Opisujeta ga kot ustreznost okoljskih reakcij na temperamentne značilnosti otrok. Med okoljske faktorje prištevata ekstrinzične/zunanje vire, kot so socioekonomski status, starševsko vedenje ter kvaliteta odnosa med otrokom in vzgojiteljem (Hipson in Séguin, 2017). Zdrav razvoj je odvisen predvsem od stopnje ujemanja med okoljem in temperamentom. Po tem modelu psihološki razvoj ni odvisen samo od otrokovega temperamenta, temveč je enako pomembno tudi ujemanje/primernost odzivov staršev (ali drugih) na njegov temperament. Lerner in Lerner (2010) razlagata, da se lahko model ujemanja prenese tudi na druga okolja zunaj doma in prav tako na druge odnose,

ne samo na odnos starš–otrok. Ključna konteksta otroštva sta vrtec in šola, kjer so v središču odnosi med otrokom in vzgojitelji ter med otrokom in njegovimi vrstniki.

Namen

Namen raziskave je pojasniti vlogo otrokovega temperamenta v njegovem čustvenem in socialnem prilagajanju. Cilj pričujoče študije je bil preučiti povezave med določenimi temperamentnimi značilnostmi in socialnimi izidi, ki pomembno vplivajo na otrokov razvoj.

Hipoteze

H 1: Dimenzija temperamenta *živahnost* (angl. *surgency*) se pozitivno povezuje z vedenjem pozunanjenja težav pri otrocih.

H 2: Dimenzija temperamenta *negativno čustvovanje* se pozitivno povezuje z otrokovo anksioznostjo.

H 3: Dimenzija temperamenta *negativno čustvovanje* se pozitivno povezuje z otrokovo agresivnostjo.

H 4: Dimenzija temperamenta *plašnost* se pozitivno povezuje z vedenjem ponotranjenja težav pri otrocih.

H 5: Dimenzija temperamenta *prizadevni nadzor* se pozitivno povezuje s socialno kompetentnostjo otroka.

H 6: Dimenzija temperamenta *prizadevni nadzor* se pozitivno povezuje z obema lestvicama interakcije z odraslimi.

H 6a: *Prizadevni nadzor* se pozitivno povezuje s sodelovanjem otroka.

H 6b: *Prizadevni nadzor* se pozitivno povezuje s samostojnostjo otroka.

Metoda

Udeleženci

V raziskavo je bilo vključenih 144 predšolskih otrok iz petih javnih vrtcev, od tega 77 dečkov (53,5 %) in 67 (46,5 %) deklic. Njihova povprečna starost je bila 61 mesecev (SD = 11,24), v razponu od 36 do 79 mesecev.

Pripomočki

- *Vprašalnik o socialnem vedenju otrok (SV-O)* (LaFreniere idr. 2001)

Z vprašalnikom ocenjujemo socialno kompetentnost, čustveno izražanje in težave v prilagajanju otrok, starih od 30 do 89 mesecev. SV-O sestavlja 80 postavk, ki sestavljajo 8 temeljnih lestvic in 4 sestavljene. Vsako temeljno lestvico sestavlja 10 postavk, od katerih se jih 5 nanaša na uspešno prilagajanje, preostalih 5 pa na težave pri prilagajanju. Vprašalnik rešujejo vzgojiteljice ali pomočnice vzgojiteljic. S pomočjo 6-stopenjske ocenjevalne lestvice označijo otrokovo značilno vedenje ali čustveno stanje, pri čemer pomenijo ocene: 1 – vedenje/stanje se ne pojavi skoraj nikoli, 2 ali 3 – se pojavi včasih, 4 ali 5 – se pojavi pogosto, in 6 – se pojavi skoraj vedno.

- *Vprašalnik o otrokovem temperamentu, kratka oblika* (Rothbart idr., 2001)

Za ocenjevanje otrokovega temperamenta smo uporabili t. i. *Vprašalnik o otrokovem temperamentu* za otroke od 3. do 7. leta starosti, ki smo ga prevedli v slovenščino. Sestavlja ga 94 postavk, ki sestavljajo 15 posameznih temperamentalnih značilnosti. Večino lestvic sestavlja 6 postavk, razen: raven dejavnosti (7 postavk), zadovoljstvo ob šibki stimulaciji (8 postavk) in žalost (7 postavk). Vprašalnik rešujejo starši otrok in na lestvici od 1 do 7 ocenijo, ali je postavka pravilen ali nepravilen opis reakcije njihovega otroka v zadnjih šestih mesecih. Ocenjevalna lestvica teče od: 1 – popolnoma ne drži do 7 – popolnoma drži.

Postopek

Pred zbiranjem podatkov smo od staršev otrok pridobili soglasje za sodelovanje v raziskavi. *Vprašalnik o otrokovem socialnem vedenju* so reševali vzgojitelji otrok in pomočniki vzgojiteljev, *Vprašalnik o otrokovem temperamentu* pa so reševali starši otrok. Da je bila zagotovljena anonimnost udeležencev, so namesto imena in priimka na vprašalnik napisali šifro otroka. Delež vrnjenih vprašalnikov s strani staršev je bil približno 50 %.

Analize podatkov

Za analizo podatkov so bile uporabljene osnovne opisne statistike. Za ugotavljanje povezanosti temperamentnih značilnosti z določenimi vidiki socialnega vedenja je bil uporabljen Spearmanov koeficient korelacije.

Rezultati

Merske značilnosti prevedenega Vprašalnika o otrokovem temperamentu (angl. Children Behavior Questionnaire)

Faktorska analiza

Sprva smo s faktorsko analizo preverili strukturo prevedenega vprašalnika. Faktorska analiza originalnega vprašalnika je konstantno izločala tri faktorje (Putnam in Rothbart, 2006). Pred izvedbo smo preverili, ali podatki zadostujejo kriterijem faktorske analize. S pomočjo Kaiser-Meyer-Olkinovega testa smo preverjali, ali je naš vzorec korelacij dovolj kompakten. Z Bartlettovim testom sferičnosti pa smo preverjali, ali so korelacije zadovoljive. Vrednost Kaiser-Meyer-Olkinovega testa je 0,58, to kaže na dokaj nekompakten vzorec korelacij med postavkami, vrednosti nad 0,5 pa so sprejemljive (Coakes in Ong, 2011). Bartlettov test sferičnosti je statistično pomemben ($p = 0,00$), korelacije med spremenljivkami so torej zadovoljivo različne od 0.

Za ugotovitev števila faktorjev obstaja več kriterijev. Najprej smo uporabili Kaiser-Guttmanov kriterij, ki izloči število faktorjev z lastno vrednostjo, višjo od 1 ali enako 1. V našem primeru je izločil 29 faktorjev. V faktorski analizi smo uporabili metodo največjega verjetja (angl. *maximum likelihood*), in sicer postopek ekstrakcije.

Naslednji kriterij za izločitev faktorjev, tj. Cattellov graf drobirja, bi izločil približno 20 faktorjev, s tem da jih sedem bolj izstopa.

Kriterij za izločanje tistih faktorjev, ki pojasnjujejo vsaj 5 % variance (Suhr, 2005), pa je izločil tri faktorje, kot se je pokazalo tudi v originalnem vprašalniku.

Izvedena faktorska analiza podatkov kaže na nestabilno strukturo prevedenega in prirejenega vprašalnika. Razloge za to moramo vsekakor iskati v velikosti vzorca, saj je glede na predlagano velikost premajhen. Viri navajajo, da je nad 100 udeležencev še sprejemljivo število, vendar je priporočljivo uporabiti vzorec, večji od 200 oseb (Coakes in Ong, 2011). Verjetnost obstaja, da bi bilo priporočljivo spremeniti določene postavke, ki najmanj nasičijo faktorje.

Zanesljivost vprašalnika

Zanesljivost vprašalnika smo preverili prek notranje skladnosti. Vprašalnik o otrokovem temperamentu ima sprejemljivo notranjo skladnost. Cronbach α znaša 0,82, Guttmanov razpolovitveni koeficient (angl. Guttman *Split – Half*) je 0,51, Guttmanov koeficient λ_2 (lambda 2) pa kaže 0,85.

Osnovne opisne statistike

Tabela 1: Opisne statistike in rezultati testa Kolmogorov-Smirnova *

Spremenljivke	N	Min.	Max.	M	SD
1. Živahnost	144	2,96	6,18	4,76	,65
2. Negativno čustvovanje	144	2,14	5,86	3,83	,66
3. Prizadevni nadzor	144	3,73	7	5,45	,62
4. Osredotočanje pozornosti	144	2,83	7	4,95	,90
5. Plašnost	144	1	7	3,34	1,23
6. Socialna kompetentnost	144	53	198	125,40	35,23
7. Ponotranjenje težav	144	26	100	79,92	14,11
8. Pozunanjenje težav	144	7	100	82,53	16,09
9. Splošno prilagajanje	144	147	387	287,86	55,81
10. Anksioznost	144	15	50	36,42	8,33
11. Osamljenost	144	10	50	37,05	9,63
12. Agresivnost	144	5	50	36,82	8,75
13. Sodelovanje	144	9	50	38,56	8,39
14. Samostojnost	144	7	49	34,88	8,35

Najprej smo izračunali mere opisne statistike. Uporabili smo test Kolmogorov-Smirnova, s katerim smo preverili normalnost porazdelitve in ugotovili, da so normalno porazdeljene spremenljivke živahnost, negativno čustvovanje, prizadevni nadzor, plašnost, anksioznost in samostojnost. Preostale so nenormalno porazdeljene.

Korelacije med spremenljivkami

Tabela 2: Spearmanovi korelacijski koeficienti med obravnavanimi spremenljivkami

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Živahnost														
Negativno čustvovanje	,23**													
Prizadevni nadzor	,01	-,18*												
Osvetločanje pozornosti	-,16	-,07	,82**											
Plašnost	-,62**	,40**	-,14	,03										
Socialna kompetentnost	,07	-,16	,20*	,17*	-,18*									
Ponotranjenje težav	-,22**	,08	-,11	-,10	,25**	-,71**								
Pozunanjenje težav	,15	,03	-,16	,14	,11	-,52**	,42**							
Splošno prilagajanje	,06	-,12	,19*	,18*	-,15	,96**	-,80**	-,67**						
Anksioznost	-,31**	,17*	-,12	-,08	,31**	-,79**	,85**	,27**	-,79**					
Osamljenost	-,15	,14	-,14	,15	,26**	-,81**	,86**	,36**	-,83**	,82**				
Agresivnost	,12	,05	-,22**	-,21*	,06	-,83**	,47**	,74**	-,84**	,48**	,54**			
Sodelovanje	-,12	-,08	,23**	,22**	-,01	,74**	-,42**	-,75**	,77**	-,37**	-,46**	-,81**		
Samostojnost	,14	-,06	,09	,16	-,23**	,78**	-,83**	-,34**	,79**	-,76**	-,77**	,54**	,44**	

Zaradi nenormalnosti nekaterih spremenljivk smo uporabili Spearmanov korelacijski koeficient za preverjanje povezanosti med vključenimi spremenljivkami. Tabela 2 kaže korelacije med spremenljivkami.

Interpretacija

Z raziskavo smo preverjali povezanost med določenimi temperamentnimi značilnostmi in nekaterimi vidiki socialnega vedenja v vrtcu. Izsledki predstavljajo pomembno informacijo za identificiranje otrok, ki imajo več predispozicij, da razvijejo težave v socialnem razvoju zaradi svojih temperamentnih značilnosti. Temperament namreč predstavlja pomemben dejavnik v socialnem vedenju otroka.

Rezultati so pokazali, da obstaja statistično pomembna povezava med nekaterimi vidiki temperamenta in socialnim vedenjem predšolskih otrok. Spearmanovi koeficienti korelacije kažejo na pomembno povezanost določenih podlestitv temperamenta s socialnim vedenjem, kot so pozunanjenje, ponotranjenje težav, socialna kompetentnost in sodelovanje (tabela 2). Otrokove temperamentne značilnosti igrajo ključno vlogo v razvoju socialne kompetentnosti in drugega socialnega vedenja pri otrocih (Yoleri, 2014).

Hipoteze 1 nismo potrdili, saj je koeficient korelacije zelo nizek in povezava ni statistično pomembna.

Hipotezo 2 smo potrdili. Schermerhorn in Bates (2012) sta ugotovila, da negativno čustvovanje napoveduje tako ponotranjenje težav (anksioznost, depresijo) kot tudi pozunanjenje težav (agresivnost, neupoštevanje pravil). Anksioznost je torej ena izmed aspektov ponotranjenja težav. Obstaja tendenca, da so otroci, ki izražajo več negativnega čustvovanja, tudi bolj anksiozni.

Hipoteze 3 nismo sprejeli, saj koeficient korelacije ni statistično značilen. Hipotezo smo postavili na podlagi izsledkov različnih raziskav, ki so potrjevale, da negativno čustvovanje napoveduje pozunanjenje težav – agresivnost, neupoštevanje pravil (Schermerhorn in Bates, 2012), to pa se pri nas ni pokazalo.

Hipotezo 4 smo potrdili. Tudi Eggum-Wilkens in sodelavci (2014) so ugotovili, da obstaja pozitivna povezanost med plašnostjo in ponotranjenjem težav. Pomembno povezanost med temperamentno plašnostjo in vedenjem ponotranjenja sta ugotovila tudi Coplan in Rubin (1998).

Hipotezo 5 smo potrdili. Predhodne raziskave podpirajo naše rezultate. Fabes in sodelavci (1999) so ugotovili, da se otroci, ki imajo visoko izražen prizadevni nadzor, odzivajo bolj kompetentno kot otroci z nižje izraženim prizadevnim nadzorom. Izsledki naše raziskave so konsistentni tudi navedbami raziskovalke Eisenberg (2012), ki navaja, da se prizadevni nadzor otrok v predšolskem obdobju povezuje z izraženo visoko stopnjo socialne kompetentnosti.

Hipotezo 6 smo delno potrdili, saj se prizadevni nadzor statistično pomembno pozitivno povezuje le z eno dimenzijo interakcije z odraslimi, in sicer s sodelovanjem. Povezanost med prizadevnim nadzorom in samostojnostjo pa ni statistično pomembna. Hipotezo smo zastavili na podlagi izsledkov, ki ugotavljajo, da se prizadevni nadzor pozitivno povezuje s tem, da ima otrok rad šolo, sodeluje v razredu in izkazuje sodelovanje v odnosu med otrokom in vzgojiteljem (Valiente idr., 2012). Poleg tega smo upoštevali še dejstvo, da se je prizadevni nadzor pokazal kot dejavnik, ki uravnava tako negativna čustva in aktivnosti kot tudi zaščitni dejavnik pred vedenjskimi težavami v otrokovem razvoju (Ormel idr., 2005), to pa povečuje možnosti za dober odnos otroka z vzgojitelji. Pomembno je tudi spoznanje, da razvoj prizadevnega nadzora pomaga otrokom upoštevati zahteve odraslih, odložiti zadovoljitev potreb in uravnati impulze (Fox in Calkins, 2003), kar prav tako vpliva na kakovost odnosov z odraslimi.

Povzamemo lahko torej, da otroci, ki dosegajo višje vrednosti na dimenziji *prizadevni nadzor*, bolj sodelujejo v odnosu z odraslimi kot otroci, ki izražajo nizke vrednosti na tej dimenziji (npr. pomagajo vzgojiteljici pri vsakodnevni opravih v vrtcu, prenehajo govoriti, ko jim je rečeno, upoštevajo vzgojiteljico ...).

Omeniti velja še zmerno pozitivno in statistično pomembno korelacijo (0,47) med ponotranjenjem težav in agresivnostjo, ki predstavlja sicer enega izmed aspektov pozunanjenja težav. Mogoče prav zato, ker agresivne otroke vidimo v negativni luči in jim zato pripisujemo tudi druge negativne lastnosti, kot jih opisujejo postavke, ki so značilne za ponotranjenje težav: »*Videti je utrujen.*«, »*Ko joka, ga je težko potolažiti.*«, »*Potrebuje prisotnost vzgojiteljice, da dobro funkcioniira.*«. Izkazalo se je, da so White, Jarrett in Ollendick (2013) že raziskovali omenjeno povezanost. Izsledki njihovih raziskav kažejo, da se pri reaktivno agresivnih otrocih izkazujejo vedenja ponotranjenja in pozunanjenja zaradi težav s samoregulacijo. Reaktivno agresivnost opisujejo značilnosti, kot sta zvišana fiziološka reaktivnost ter slaba kontrola čustev in impulzov.

Nadalje se je pokazala statistično pomembna in zelo visoka pozitivna povezanost (0,85) med anksioznostjo in ponotranjenjem težav ter agresivnostjo in pozunanjenjem težav (0,74), kar je logično, saj je anksioznost ena izmed oblik vedenj ponotranjenja, agresivnost pa eden izmed aspektov pozunanjenja težav. Korelacije so prav tako potrdile dejstvo, da je osredinjane pozornosti eden izmed glavnih elementov prizadevnega nadzora, saj je korelacija zelo visoka (0,82).

Ponotranjenje težav se tudi visoko negativno povezuje s samostojnostjo. Izsledki torej kažejo, da otroci, ki so bolj odvisni od vzgojiteljev v vrtčevski skupini, izražajo več vedenj ponotranjenja.

Glede na tabelo korelacij (tabela 2) lahko povzamemo, da je pri otrocih izrednega pomena krepitev socialne kompetentnosti, saj se ta močno pozitivno povezuje z značilnostmi s pozitivnega pola: samostojnost (0,78) in sodelovanje (0,74), ter negativno z vsemi značilnostmi z negativnega pola: agresivnost (-0,83); anksioznost (-0,79) in ponotranjenje težav (-0,71) ter pozunanjenje težav (-0,52). To pomeni, da se glede na negativne pole pozitivno povezuje z mirnostjo, zaupljivostjo in odsotnostjo ponotranjenja ter pozunanjenja težav. Prav tako se prizadevni nadzor statistično pomembno pozitivno povezuje s socialno kompetentnostjo (0,20), splošnim prilagajanjem (0,19) in sodelovanjem (0,23); agresivnost pa se s prizadevnim nadzorom povezuje statistično pomembno negativno (-0,22).

Rezultati kažejo pomembne informacije za aplikacijo v realno okolje v vrtcu. Otroci, ki izražajo negativno čustvovanje, so bolj anksiozni. Bolj plašni otroci izražajo več ponotranjenja težav. Otroci, ki izražajo višje vrednosti prizadevnega nadzora, so bolj socialno kompetentni in tudi bolj sodelujejo z odraslimi v skupini v vrtcu. Otroci, ki so bolj samostojni, kažejo manj vedenj ponotranjenja.

Na podlagi vseh navedenih ugotovitev lahko povzamemo, da je izrednega pomena krepitev socialne kompetentnosti in prizadevnega nadzora, kar lahko doprinese k boljšemu počutju v vrtcu in hkrati k pridobivanju pozitivnih izkušenj, slednje pa dolgoročno prispeva k zdravemu razvoju otroka. Posledično zato obstaja manjša verjetnost, da se pojavijo odklonska vedenja, kot so vedenja pozunanjenja in ponotranjenja ter druga neprilagojena vedenja.

Pomanjkljivosti raziskave

Omejitve raziskave predstavlja uporaba t. i. *Vprašalnikom o otrokovem temperamentu*, ki še ni validiran in normiran na slovenskem vzorcu. Zato smo vprašalnik iz angleščine prevedli ter naredili faktorsko analizo, ki na našem vzorcu ni pokazala tako jasne strukture vprašalnika kot pri originalu. Struktura bi bila verjetno stabilnejša, če bi vključili večji vzorec udeležencev. Pri interpretaciji rezultatov raziskave je treba upoštevati, da veljajo ugotovitve le za otroke, ki obiskujejo vrtec. Izsledkov ne moremo posploševati na celotno populacijo otrok, starih od 3 do 6 let. Poleg tega je treba upoštevati, da ta starostni razpon zajema pomembno obdobje razvoja prizadevnega nadzora pri otroku. Pojavlja se tudi vprašanje, kakšni ocenjevalci so starši, ki ocenjujejo temperament, in kakšni vzgojitelji, ki ocenjujejo otrokovo vedenje. Sanson in sodelavci (2004) navajajo, da se temperament nanaša na celoten vedenjski stil otroka in ne samo na trenutno vedenje, zato so starši, ki lahko opazujejo otroka skozi čas in različne kontekste, primerni ocenjevalci. Vzgojitelji imajo po drugi strani možnost primerjave vedenja otroka z drugimi otroki, česar starši večinoma nimajo. Kljub vsemu obstaja možnost, da so tako starši (v večji meri) kot vzgojitelji pri ocenjevanju subjektivni. Vpliv na odgovore lahko imajo bližnje situacije, razpoloženje in drugi dejavniki, ki vplivajo na njegov trenutni vtis o otroku.

Zaključek

Smernice za nadaljnje raziskovanje

Pričujoča raziskava je vsekakor odprla izhodišča za nadaljnje raziskave. Za verodostojnejše odgovore bi bilo dobro združiti več različnih načinov merjenja temperamenta v istem obdobju, npr. kombinacijo poročanja staršev, laboratorijsko situacijo in aktometer (merilec aktivnosti) na domu ali v vrtcu (Bremner in Wachs, 2010). Zanimivo bi bilo raziskati še, kako samoregulacija vpliva na razvoj ponotranjenja težav pri reaktivno agresivnih otrocih, kar smo navedli že v interpretaciji. Število raziskav na tem področju je namreč zanemarljivo, poda pa pomembno informacijo, ki jo lahko pri ugotavljanju težav pri otrocih nehote izpustimo. Dodatno možnost za nadaljnje raziskovanje bi prav tako predstavljalo longitudinalno spremljanje otrok od vrtca v osnovno šolo. Takšna vrsta raziskave bi pokazala, kako prestop iz vrtca v šolo vpliva na socialno vedenje otrok in na njihovo prilagajanje v novem okolju.

Aktualnost raziskave in intervencije

Poznati področje povezave med temperamentom in socialnim vedenjem otrok je koristno tako za starše kot za vzgojitelje. Omenjeno namreč predstavlja dobro osnovo za identificiranje učinkovitih intervencij za otroke, ki imajo večje tendence, da razvijejo težave v socialnem razvoju zaradi svojih temperamentnih značilnosti. Pomoč vzgojiteljem in staršem pri prepoznavanju otrokovih temperamentnih značilnosti lahko omogoča boljše socialne izkušnje za otroke (Acar idr., 2015). Pullis in Cadwell (1982) navajata, da je izrednega pomena, da vzgojitelji pri kreiranju aktivnosti v manjših skupinah, opravljanju nalog in socialnih interakcijah upoštevajo temperamentne značilnosti otrok. Izsledki lahko pomagajo vzgojiteljem pri delu z otroki, ki potrebujejo podporo v interakcijah z vrstniki pri oblikovanju podpornih, zaščitnih in negovanih vrstniških odnosov. Predvsem zelo plašnim otrokom koristita vzgojiteljevo spremljanje in podpora; na ta način lahko namreč vplivamo na znižanje socialne anksioznosti otroka in ga vodimo k bolj pozitivnim socialnim odnosom z vrstniki (Acar idr., 2015). Intervencije imajo potencial, da okrepijo otrokov socialni razvoj. To lahko dosežemo z oblikovanjem okolja, ki se bo ujemalo

z otrokovim temperamentnim stilom. Prav v predšolskem obdobju so intervencije izrednega pomena, saj otrok vstopa v popolnoma novo okolje, tj. vstop v vrtec/vstop v šolo (Sanson idr., 2004). Kot navajajo Corredor, Justicia-Arráez, Romero-López in Benavides-Nieto (2017), je s preventivnimi programi treba pričeti zgodaj v otrokovem razvoju, morajo pa vsebovati priložnosti za razvoj empatije, prosocialnega vedenja in veščin reševanja socialnih težav. Blair in sodelavci (2004) poudarjajo, da je pri preventivnih programih ključna prisotnost krepitev uravnavanja čustev. S tem lahko namreč zmanjšamo pojav vedenjskih težav, poveča pa se razvoj sodelovalnega in prosocialnega vedenja, ki izboljša odnose v skupini. Navajajo še nekaj idej za uporabo preventivnih ali intervencijskih strategij: gradnja odnosov, psihoedukacija otrok o čustvih, učenje otrok o strategijah uravnavanja čustev, ki so primerne otrokovi starosti. Prav tako je pomembno, da se pri otrocih razvija prizadevni nadzor. Pomembno je, da tako vzgojitelji kot starši vstopajo v interakcijo z otrokom na način, s katerim spodbujajo razvoj prizadevnega nadzora.

Summary

Temperament is an important factor in the development of social behavior in children. To a large extent, it is biologically conditioned; however, the development of a particular personal trait depends on the environment and our activities. M. K. Rothbart in Bates (2006) define temperament as an affective, activation, and attentional core of personality. Temperament and experience together “grow” a personality, which will include the child’s developing cognitions about themselves, others and the physical and social world, as well as his or her values, attitudes, and coping strategies (Rothbart, 2007).

Several studies have confirmed a link between temperament and social behavior. M. K. Rothbart (2007) found surgency as a temperamental trait to be related to greater externalizing (acting out) of problems; A. Schermerhorn and Bates (2012) found that negative emotional reactivity precedes both internalizing problems (anxiety, depression) as well as externalizing problems (aggressiveness, rule-breaking). N. Eggum-Wilkens and colleagues (2014) found a positive correlation between shyness and internalizing problems. N. Eisenberg (2012) finds that effortful control in preschool children is linked to high levels of social competence.

Valiente and colleagues (2012) found a positive correlation between effortful control and children liking school, their classroom participation and their relation to the teacher. Other authors have confirmed that effortful control is a factor regulating negative affectivity and behaviors. It also protects against behavioral difficulties in the child's development (Ormel et al., 2005), which makes it more likely that children and teachers will develop a good relationship. It is possible to exert considerable influence on the development of children in the pre-school period, so it is important that we help children develop those traits that are linked to positive outcomes and try to prevent negative outcomes.

Our study examined the connection between selected temperament traits and some aspects of social behavior in kindergarten.

The initial hypotheses were as follows:

H1: Surgency correlates positively with externalizing problems.

H2: Negative affectivity correlates positively with anxiety.

H3: Negative affectivity correlates positively with aggressiveness.

H4: Shyness correlates positively with internalizing problems.

H5: Effortful control correlates positively with social competence.

H6: Effortful control correlates positively with both scales of interaction with adults.

H6a: Effortful control correlates positively with cooperation.

H6b: Effortful control correlates positively with independence.

The data was obtained using the Questionnaire about the Child's Social Behavior (SV-O) (LaFreniere et al. 2001) and the Children's Behavior Questionnaire (CBQ) (Rothbart et al., 2001). The sample comprised 144 children aged 36 to 79 months, who attend one of the five kindergartens included in the study. The Children's Behavior Questionnaire was filled in by the children's parents, while childcare workers completed the Questionnaire about the Child's Social Behavior.

The results showed a tendency for surgency to correlate positively with externalizing problems; however, the correlation was not statistically significant. It was found that children with more negative affectivity are also more anxious; however, statistical significance of the correlation between negative affectivity and aggressiveness could not be confirmed. Results showed that shyness correlates positively with internalization of problems, while effortful control with social competence and one out of two scales of interaction with adults: cooperation. The correlation with independence was not statistically significant.

The findings of our study and the results of other authors constitute important information for detecting children who are more likely to develop problems in their social development owing to their temperamental characteristics. Based on our findings and the results of other studies, we want to highlight that it is necessary to develop the social competence of children, emphasize prosocial behavior and empathy, teach children how to resolve social problems, and encourage them to develop effortful control, which turned out to be an important forecaster of positive developmental outcomes. Learning how to control emotions also has a significant impact on the social behavior of children. It is important that everyone working with children observe individual differences in temperament because these are a source of important information about the social behavior of children in a group. The support that childcare workers and parents provide to children who are prone to atypical behavior and emotional problems is the key protective element that prevents children from developing behavioral problems.

Literatura

- Acar, I. H., Rudasill, K. M., Molfese, V., Torquati, J., in Prokasky, A. (2015). Temperament and preschool children's peer interactions. *Early Education and Development*, 26, str. 479–495.
- Asendorpf, J. B. (1990). Beyond social withdrawal: shyness, unsociability, and peer avoidance. *Human Development*, 33, str. 250–259.
- Biederman, J., Hirshfeld-Becker, D. R., Rosenbaum, J. F., Herot, C., Friedman, D., Snidman, N., Kagan, J., in Faraone, S. V. (2001). Further evidence of association between behavioral inhibition and social anxiety in children. *American Journal of Psychiatry*, 158, str. 1673–1679.
- Blair, K. A., Denham, S. A., Kochanoff, A., in Whipple, B. (2004). Playing it cool: temperament, emotion regulation, and social behavior in preschoolers. *Journal of School Psychology*, 42, str. 419–443.

- Bornstein, M. H., Hahn, C. S., in Haynes, O. M. (2010). Social competence, externalizing, and internalizing behavioral adjustment from early childhood through early adolescence: developmental cascades. *Development and Psychopathology*, 22, str. 717–735.
- Bremner, J. G., in Wachs, T. D. (ur.) (2010). *The Wiley-Blackwell handbook of infant development, second edition, vol. 1: basic research*. West Sussex: Blackwell Publishing.
- Coakes, S. J., in Ong, C. (2011). *SPSS: analysis without anguish: version 18 for Windows*. Milton: John Wiley & Sons Australia.
- Compas, B. E., Connor-Smith, J., in Jaser, S. S. (2004). Temperament, stress reactivity, and coping: implications for depression in childhood and adolescence. *Journal of Clinical Child and Adolescent Psychology*, 33(1), str. 21–31.
- Coplan, R. J., in Rubin, K. H. (1998). Exploring and assessing nonsocial play in the preschool: the development and validation of the preschool play behavior scale. *Social Development*, 7(1), str. 72–91.
- Corredor, G. A., Justicia-Arráez, A., Romero-López, M., in Benavides-Nieto, A. (2017). Longitudinal study of the effects of social competence on behavioral problems. *Procedia – Social and Behavioral Sciences*, 237, str. 479–485.
- Donnellan, M. B., in Robins, R. W. (2010). Resilient, overcontrolled, and undercontrolled personality types: issues and controversies. *Social and Personality Psychology Compass*, 4(11), str. 1070–1083.
- Dunn, J., in Cutting, A. L. (1999). Understanding others, and individual differences in friendship interactions in young children. *Social Development*, 8, str. 201–219.
- Eggum-Wilkens, N. D., Valiente, C., Swanson, J., in Lemery-Chalfant, K. (2014). Children's shyness, popularity, school liking, cooperative participation, and internalizing problems in the early school years. *Early Childhood Research Quarterly*, 29(1), str. 85–94.
- Eisenberg, N. (2012). Temperamental effortful control (self-regulation). *Encyclopedia on early childhood development*. USA: Arizona State University.
- Eisenberg, N., Cumberland, A., Spinrad, T. L., Fabes, R. A., Shepard, S. A., Reiser, M., ... Guthrie, I. K. (2001). The relations of regulation and emotionality to children's externalizing and internalizing problem behavior. *Child Development*, 72(4), str. 1112–1134.
- Evans, D., in Rothbart, M. K. (2007). Developing a model for adult temperament. *Journal of Research in Personality*, 41, str. 868–888.
- Fabes, R. A., Eisenberg, N., Jones, S., Smith, M., Guthrie, I., Poulin, R., ..., Friedman, J. (1999). Regulation, emotionality, and preschoolers' socially competent peer interactions. *Child Development*, 70(2), pp. 432–442.
- Fabes, R. A., Gaertner, B. M., in Popp, T. K. (2006). Getting along with others: social competence in early childhood. V K. McCartney in D. Phillips (ur.), *Blackwell handbook of early childhood development* Malden, MA: Blackwell Publishing. pp. 297–316.
- Fox, N. A., in Calkins, S. D. (2003). The development of self-control of emotion: intrinsic and extrinsic influences. *Motivation and Emotion*, 27(1), str. 7–26.
- Graziano, W. G., Jensen-Campbell, L. A., in Sullivan-Logan, G. M. (1998). Temperament, activity, and expectations for later personality development. *Journal of Personality and Social Psychology*, 74(5), str. 1266–1277.
- Gunnar, M. R., Sebanc, A. M., Tout, K., Donzella, B., in Van Dulmen, M. M. H. (2003). Peer rejection, temperament, and cortisol activity in preschoolers. *Dev Psychobiol*, 43, 346–358.
- Hartup, W. W. (1996). The company they keep: friendships and their developmental significance. *Child Development*, 67, str. 1–13.
- Hipson, W. E., in Séguin, D. G. (2017). Goodness of fit model. V V. Zeigler-Hill in T. K. Shackelford (ur.), *Encyclopedia of Personality and Individual Differences* New York: Springer. str. 1–3.

- Kagan, J., in Snidman, N. (1999). Early childhood predictors of adult anxiety disorders. *Biological Psychiatry*, 46, str. 1536–1541.
- Katz, L. G., in McClellan, D. E. (1991). The teacher's role in the social development of young children. *Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education*, str. 1–78.
- Ladd, G. W., Kochenderfer, B. J., in Coleman, C. C. (1997). Classroom peer acceptance, friendship, and victimization: distinct relational systems that contribute uniquely to children's school adjustment. *Child Development*, 68, str. 1181–1197.
- LaFreniere, P. J., Dumas, J. E., Zupančič, M., Gril, A., in Kavčič, T. (2001). *Vprašalnik o socialnem vedenju otrok. SV-O priručnik*. Ljubljana: Center za psihodiagnostična sredstva.
- Lerner, R. M., in Lerner, J. V. (2010). Children in their contexts: a goodness-of-fit model. V J. B. Lancaster, J. Altmann, A. S. Rossi, in L. R. Sherrod (ur.), *Parenting across the life span: Bisocial Dimensions* London: Aldine Transaction. str. 377–404.
- Merikangas, K. R., Swendsen, J. D., Preisig, M. A., in Chazan, R. Z. (1998). Psychopathology and temperament in parents and offspring: results of a family study. *Journal of Affective Disorders*, 51, str. 63–74.
- Muris, P., Meesters, C., in Spinder, M. (2003). Relationships between child- and parent-reported behavioural inhibition and symptoms of anxiety and depression in normal adolescents. *Personality and Individual Differences*, 34, str. 759–771.
- Murray, K. T., in Kochanska, G. (2002). Effortful control: factor structure and relation to externalizing and internalizing behaviors. *Journal of Abnormal Child Psychology*, 30(5), str. 503–514.
- Oren, M., in Jones, I. (2009). The relationships between child temperament, teacher-child relationships, and teacher-child interactions. *International Education Studies*, 2(4), str. 122–132.
- Ormel, J., Oldehinkel, A. J., Ferdinand, R. F., Hartman, C. A., De Winter, A. F., Veenstra, R., Verhulst, F. C. (2005). Internalizing and externalizing problems in adolescence: general and dimension-specific effects of familial loadings and preadolescent temperament traits. *Psychological Medicine*, 35, str. 1825–1835.
- Pullis, M., in Cadwell, J. (1982). The influence of children's temperament characteristics on teachers' decision strategies. *American Educational Research Journal*, 19(2), str. 165–181.
- Putnam, S. P., in Rothbart, M. K. (2006). Development of short and very short forms of the Children's behaviour questionnaire. *Journal of Personality Assessment*, 87(1), str. 102–112.
- Rothbart, M. K. (2007). Temperament, development, and personality. *Association for Psychological Science*, 16(4), str. 207–212.
- Rothbart, M. K. (2011). *Becoming who we are. Temperament and personality in development*. New York: The Guilford Press.
- Rothbart, M. K., Ahadi, S. A., in Hershey, K. L. (1994). Temperament and social behavior in childhood. *Merrill-Palmer Quarterly*, 40(1), str. 21–39.
- Rothbart, M. K., Ahadi, S. A., Hershey, K. L., in Fisher, P. (2001). Investigations of temperament at 3–7 years: the Children's Behavior Questionnaire. *Child Development*, 72, str. 1394–1408.
- Rothbart, M. K., in Bates, J. E. (2006). Temperament. V N. Eisenberg, N. Damon, in R. Lerner (ur.), *Handbook of child psychology: vol. 3, Social, emotional, and personality development* (6th Ed.) Hoboken, NJ: Wiley. str. 99–166.
- Rothbart, M. K., in Derryberry, D. (1981). Development of individual differences in temperament. V M. E. Lamb, in A. L. Brown (ur.), *Advances in developmental psychology, vol. 1* Hillsdale, N. J.: Erlbaum. str. 37–86.
- Rothbart, M. K., in Sheese, B. (2007). Temperament and emotion regulation. V J. J. Gross (ur.), *Handbook of emotion regulation*. New York: Guilford Press. str. 331–350.

- Rubin, K. H., Bowker, J. C., in Kennedy, A. E. (2009). Avoiding and withdrawing from the peer group. V K. H. Rubin, W. M. Bukowski in B. Laursen (ur.), *Handbook of peer interactions, relationships, and groups*. New York, NY: Guilford Press. str. 303–321.
- Rubin, K. H., Bukowski, W. M., in Parker, J. G. (2006). Peer interactions, relationships, and groups. V W. Damon, R. M. Lerner, in N. Eisenberg (ur.), *Handbook of child psychology: vol. 3. Social, emotional, and personality development* (6th Ed.) Hoboken, NJ: Wiley. str. 571–645.
- Rubin, K. H., Coplan, R. J., Fox, N. A., in Calkins, S. D. (1995). Emotionality, emotion regulation, and preschoolers' social adaptation. *Development and Psychopathology*, 7, str. 49–62.
- Rutar, S. (2013). Sociokulturni pristop pri spremljanju otrokovega razvoja in učenja v vrtcu. *Revija za elementarno izobraževanje*, 6(1), str. 105–118.
- Sanson, A., Hemphill, S. A., in Smart, D. (2004). Connections between temperament and social development: A review. *Social Development*, 13, str. 142–170.
- Schermerhorn, A. C., in Bates, J. E. (2012). Temperament, parenting and implications for development. *Encyclopedia on early childhood development*. USA: Indiana University.
- Schwartz, C. E., Snidman, N., in Kagan, J. (1996). Early childhood temperament as a determinant of externalizing behavior in adolescence. *Development and Psychopathology*, 8, str. 527–537.
- Thomas, A., in Chess, S. (1977). *Temperament and development*. New York: Brunner/Mazel.
- Valiente, C., Eisenberg, N., Sith, C. L., Reiser, M., Fabes, R. A., Losoya, S., Murphy, B. C. (2003). The relations of effortful control and reactive control to children's externalizing problems: a longitudinal assessment. *Journal of Personality*, 71(6), str. 1171–1196.
- Valiente, C., Swanson, J., in Lemery-Chalfant, K. (2012). Kindergartners' temperament, classroom engagement, and student-teacher relationship: moderation by effortful control. *Social Development*, 21, str. 558–576.
- Vidmar, M., in Zupančič, M. (2006). Spremljanje socialnega vedenja otrok v vrtcu: na posameznika osredotočen pristop. *Psihološka obzorja*, 15(1), str. 47–74.
- Walker, S. (2001). Temperament and peer acceptance in early childhood: sex and social status differences. *Child Study Journal*, 31, str. 177–192.
- White, B. A., Jarrett, M. A., in Ollendick, T. H. (2013). Self-regulation deficits explain the link between reactive aggression and internalizing and externalizing behaviour problems in children. *J Psychopathol Behav Assess*, 35, str. 1–9.
- Yoleri, S. (2014). The role of child's temperament predictor on preschool social competence. *Creative Education*, 5, str. 1160–1169.
- Zentner, M., in Bates, J. E. (2008). Child temperament: an integrative review of concepts, research programs, and measures. *European Journal of Developmental Science*, 2(1/2), str. 7–37.

Avtorici

Tjaša Rola, mag. psih.; master of psychology

Srednja zdravstvena šola Celje, Ipavčeva ulica 10, 3000 Celje, Slovenija, e-pošta: tjasa.rola@gmail.com

Secondary School for Healthcare, Ipavčeva ulica 10, 3000 Celje, e-mail: tjasa.rola@gmail.com

Dr. Karin Bakračević, PhD

Redna profesorica, Univerza v Mariboru, Filozofska fakulteta, Koroška cesta 160, 2000 Maribor, e-pošta: karin.bakracevic@um.si

Full professor, University of Maribor, Faculty of Arts, Koroška cesta 160, 2000 Maribor, e-mail: karin.bakracevic@um.si

NAVODILA AVTORJEM

Osnovni namen revije je povezati širok spekter teoretičnih izhodišč in praktičnih rešitev v izobraževanju ter tako spodbujati različne metodološke in vsebinske razprave. Uredniški odbor združuje strokovnjake in raziskovalce iz več evropskih držav in s tem želi ustvariti možnosti za živahen dialog med raznovrstnimi disciplinami in različnimi evropskimi praksami, povezanimi z izobraževanjem.

Revija za elementarno izobraževanje torej objavlja prispevke, ki obravnavajo pomembna, sodobna vprašanja na področju vzgoje in izobraževanja, uporabljajo primerno znanstveno metodologijo ter so slogovno in jezikovno ustrezni. Odražati morajo pomemben prispevek k znanosti oziroma spodbudo za raziskovanje na področju vzgoje in izobraževanja z vidika drugih povezanih ved, kot so kognitivna psihologija, razvoj otroka, uporabno jezikoslovje in druge discipline. Revija sprejema še neobjavljene članke, ki niso bili istočasno poslani v objavo drugim revijam. Prispevki so lahko v slovenskem, angleškem ali nemškem jeziku.

Sprejemanje člankov v objavo

Prejete prispevke najprej pregleda urednik/založniški odbor in ugotovi, ali vsebinsko ustrezajo konceptu in kriterijem revije.

1. Če prispevek ustreza konceptu in kriterijem revije, ga uredniški odbor pošlje dvema anonimnima recenzentoma. Članek, ki je vsebinsko skladen s konceptom revije, vendar ne ustreza drugim kriterijem, lahko uredništvo vrne avtorju, da ga popravi.
2. O sprejemu ali zavrnitvi članka je avtor obveščen približno tri mesece po njegovem prejemu.
3. Avtor dobi recenzirani prispevek vključno z morebitnimi priporočili za izboljšave/popravke, v primeru zavrnitve pa z navedenimi razlogi zanjo.
4. Končno odločitev o objavi članka sprejme urednik na temelju priporočil recenzentov. Pri tem utemeljitve za svojo odločitev ni dolžan navesti.
5. Besedilo prispevka mora biti pripravljeno v skladu z Navodili avtorjem.
6. Avtor jamči, da so v prispevku predstavljeni podatki natančni, verodostojni in izvirni. Ko je članek sprejet v objavo, avtor podpiše Izjavo o etičnosti raziskovanja in Izjavo avtorja o izvirnosti prispevka. Vsi prispevki gredo skozi postopek za ugotavljanje plagiatorstva.

Navodila za oblikovanje besedila

Pri pripravi besedila prispevka upoštevajte naslednja navodila:

1. Tipkopolis oddajte kot dokument v programu Microsoft Word. Nabor pisave je Times New Roman, velikost črk 12 za osnovno besedilo in 10 za povzetka v slovenskem in angleškem jeziku, literaturo in citate, če so daljši od 3 vrstic, razmik med vrsticami pa je 1,5. Vodilni naslovi naj bodo zapisani krepko, prvi podnaslovi ležeče, drugi podnaslovi pa navadno. Naslovov in strani ne številčite in ne uporabljajte velikih tiskanih črk.
2. Besedilo prispevka naj ne presega 8.000 besed, vključno s povzetki, literaturo in ključnimi besedami.
3. Naslov prispevka naj ne presega 15 besed in naj bo v slovenskem in angleškem jeziku.
4. Prispevek naj ima na začetku povzetek v slovenskem jeziku ter njegov prevod v angleškem jeziku (oziroma obratno) in naj ne presega 100 besed. Za povzetkom naj bo 5 ključnih besed. Poleg povzetkov naj prispevek na koncu prispevka, pred literaturo, vsebuje daljši povzetek (500-700 besed) v angleščini, če je članek napisan v slovenščini.
5. V prispevku ne uporabljajte ne sprotnih ne končnih opomb.
6. Vire navajajte v skladu s standardom APA (American Psychological Association) standardom. V literaturo vključite samo v tekočem besedilu navedene vire, ki jih uredite po abecednem vrstnem redu.
7. V posebnem dokumentu pošljite naslednje podatke: ime in priimek avtorja, akademski naziv, organizacijo, kjer je avtor zaposlen, elektronski naslov, naslov bivališča in naslov prispevka.

Primeri:

Knjige: priimek, začetnica imena avtorja, leto izida, naslov, kraj, založba.

Duh, M. (2004). *Vrednotenje kot didaktični problem pri likovni vzgoji*. Maribor: Pedagoška fakulteta.

Članki v revijah: priimek, začetnica imena avtorja, leto izida, naslov prispevka, ime revije, letnik, številka, strani.
Planinšec, J. (2002). Športna vzgoja in medpredmetne povezave v osnovni šoli. *Šport*, 50 (1), 11–15.

Prispevki v zbornikih: priimek, začetnica imena avtorja, leto izida, naslov prispevka, podatki o knjigi ali zborniku, strani, kraj, založba.

Fošnarič, S. (2002). Obremenitve šolskega delovnega okolja in otrokova uspešnost. V M. Juričič (ur.), *Šolska higiena: zbornik prispevkov* (str. 27–34). Ljubljana: Sekcija za šolsko in visokošolsko medicino SZD.

Vključevanje reference v tekst: če gre za dobesedno navedbo, napišemo v oklepaju priimek avtorja, leto izdaje in stran (Lipovec, 2005, str. 9), če pa gre za splošno navedbo, stran izpustimo (Lipovec, 2005).

Prispevke lahko avtorji pošljejo po elektronski pošti na naslov rei.pef@um.si ali jih natisnjene in na zgoščenki pošljejo na naslov:

UNIVERZA V MARIBORU
PEDAGOŠKA FAKULTETA MARIBOR
REVIIJA ZA ELEMENTARNO IZOBRAŽEVANJE
Koroška cesta 160
2000 MARIBOR
SLOVENIJA

MANUSCRIPT SUBMISSION GUIDELINES

The basic purpose of the journal *JEE* is to cover a broad spectrum of education theory and its implications for teaching practice, seeking to bridge and integrate diverse methodological and substantive research. The Editorial Board brings together academics and researchers from different European countries, who seek to promote a vigorous dialogue between scholars in various fields both central and related to scientific enquiry in education.

Articles accepted for publication in *JEE* should address an important, up to date issue in education, apply appropriate research methodology, and be written in a clear and coherent style. Accepted articles should make significant contributions to the field. In addition, *JEE* accepts articles which promote advances in education from closely related fields, such as cognitive psychology, child development, applied linguistics and others. *JEE* does not publish articles that have appeared elsewhere or have been concurrently submitted to or are already under consideration for publication in other journals. The languages accepted for the papers eligible for publication in *JEE* are Slovene and English.

Paper Acceptance Procedure

After a paper is submitted to *JEE*, the editor/publishing board first establishes if it is within the journal's domain of interests and meets the journal's requirements for style and quality.

1. If the paper meets the standard and the concept of the journal, it is sent to reviewers. *JEE* uses a double-blind review. Papers which are within the journal's domain but do not meet its requirements for style or quality, may be returned to the author for revision.
2. Authors will be notified of acceptance or rejection of the article about three months after submission of the manuscript.
3. The reviewed papers are returned to the authors with reviewers' feedback and suggestions for improvement or an indication of the reasons for a rejection.
4. The decision regarding publication is made by the editor after considering the reviewers' recommendations. The editorial board is under no obligation to provide justification for its decision.
5. The text of the paper should be edited in accordance with the Submission Guidelines.
6. Authors must certify that the data cited in the article are, to the best of their knowledge, accurate, reliable and authentic. When the article is accepted for publication, the author has to sign the Publishing Ethics Statement and the Statement of Authenticity. Manuscripts will also be submitted to plagiarism detection software.

Preparation of Copy

Follow these instructions for the preparation of the manuscript:

1. Submit your manuscript as a Word file. Use Times New Roman: 12 pt. for main text and 10 pt. for abstract in Slovene and English, and for references and quotations of three lines or more. All text must be 1.5 spaced and justified. Use boldface type for first level headings, italics for second level headings and regular type for all other headings. Do not number headings. Do not use uppercase.
2. The length of your paper should not exceed 8,000 words including the abstracts, bibliography, and key words.
3. The title of your article should not exceed 15 words. The title should be written in English and in Slovene.
4. At the beginning of the manuscript include an abstract (up to 100 words) in the language of the article, and its translation into the other language, followed by 5 key words. In addition to the abstracts also include a longer summary (about 500-700 words) at the end manuscript, before reference - in English if the article is in Slovene and in Slovene if the article is in English.
5. Do not use either footnotes or endnotes.

6. Quote references in accordance with the American Psychological Association (APA) style. Include only the sources cited in current text, arranged in alphabetical order.
7. Send a separate document with the following information: author's name and family name, address, full title of the article, academic title, affiliation and e-mail address.

Example:

Books: last name and name of the author, year of publication, title, location, press.

Duh, M. (2004). *Vrednotenje kot didaktični problem pri likovni vzgoji*. Maribor: Pedagoška fakulteta.

Articles from Magazines: last name and name of the author, year published, title of the article, name of the magazine, year, issue number, page(s).

Planinšec, J. (2002). Športna vzgoja in medpredmetne povezave v osnovni šoli. *Šport*, 50 (1), 11–15.

Academic Journals: last name and name of the author, year published, title of the article, information about the journal, page(s).

Fošnarič, S. (2002). Obremenitve šolskega delovnega okolja in otrokova uspešnost. V M. Juričič (ur.), *Šolska higiena: zbornik prispevkov* (str. 27–34). Ljubljana: Sekcija za šolsko in visokošolsko medicino SZID.

Citing sources in the body of the text: If a direct quotation is cited, write the last name of the author, year it was published and page number. Put this information in parenthesis (Lipovec, 2005, pg. 9). If the information is paraphrased, leave out the page number (Lipovec, 2005).

Manuscripts may be sent electronically to rei.pef@um.si or in printed form, sent with a saved version on a disk to the following address:

UNIVERZA V MARIBORU
PEDAGOŠKA FAKULTETA MARIBOR
REVILJA ZA ELEMENTARNO IZOBRAŽEVANJE
Koroška cesta 160
2000 MARIBOR
SLOVENIJA