

SPECIJALNA EDUKACIJA I REHABILITACIJA

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- COVID-19 INFORMATION FOR BLINDNESS AND LOW VISION
- ANGAŽOVANJE UČENIKA SA SMETNJAMA U RAZVOJU U ŠKOLI
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- ZNAČAJ KOOPERATIVNOG UČENJA U NEFORMALNIM OBRAZOVNIM KONTEKSTIMA
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Needs analysis for developing culturally responsive teaching for remedial education: What do teachers need?

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Introduction. Culturally responsive teaching modifies the learning experience by building an atmosphere that celebrates, acknowledges, and establishes the cultural capital that teachers and students create in the classroom. However, lessons that consider culture need to be fully proposed in remedial education. *Objectives.* Thus, this study views culture as one of the most significant variables to be implemented in remedial education, especially in assisting students' mastery of literacy skills by utilizing needs analysis research for remedial teachers. *Methods.* The needs analysis procedure was adapted and modified by focusing on three elements: lack situation analysis, present situation analysis, and target situation analysis. Subsequently, data were collected via an online questionnaire involving 252 voluntary remedial teachers from the middle-zone state in Malaysia. *Results.* The present situation analysis summarizes students' learning in remedial classrooms, indicating a considerable influence when teachers employ cultural-based learning. Nonetheless, the lack situation analysis demonstrates that teachers lack access to teaching resources, and the remedial education curriculum does not emphasize cultural-based learning. *Conclusion.* Target situation analysis suggests introducing culturally responsive teaching with the components of teaching, connecting, acceptance, classroom community, interaction, and evaluation as practical and wide-ranging approaches for remedial education. It is proposed that curriculum developers establish a guideline for remedial teachers in utilizing culturally responsive teaching for remedial education.

Keywords: culturally responsive teaching, needs analysis, remedial education

Introduction

Learning to read and write well significantly impacts many people, including individuals, schools, and nations. Strong literacy skills benefit everyone—individuals, families, communities, and cultures. At the international level, the World Bank (2021) and Lewis & Straza (2021) listed that industrialized nations such as Finland, Norway, Japan, and France have a 99% to 100% literacy rate. Developing countries, in comparison, have a moderate literacy rate of 80%-95%, like Mexico, Philippines, Pakistan, Costa Rica, Colombia, and Malaysia. Comparing Malaysia to nations that have evolved quickly and neighbors like Indonesia and Thailand, this country's literacy rate is still shallow. As reported by Global Data, the literacy rate in 2021. reached 95.7%, while there was a decrease of 2.7% in the last 10 years (UNESCO Institute of Statistics, 2021). Thus, a more systematic and thorough teaching and learning (TnL) method is required to enhance the mastery of writing and reading skills, particularly among underachieving students in Malaysia's primary schools, given the significance and impact of mastering literacy skills at this time.

Remedial education was implemented in Malaysia to address basic literacy mastery at the primary school level. Similarly, educational initiatives like Literacy and Numeracy Screening (LINUS) and the most recent Primary Literacy and Numeracy (PLaN) support efforts to guarantee that pupils master literacy skills at a young age. However, the implemented programs are considered ineffective since they do not focus enough on the student's background and culture for academic transition to be connected to the student's actual experiences outside of school (Omar & Noh, 2017; Rahman et al., 2021; Tamuri & Hussin, 2017). As a result, students' participation in school activities is restricted because they are frequently labeled as *limited*, *deficient*, and *inadequate* when it comes to their mastery of literacy (Yolak et al., 2019). This is contrary to the findings of Bui and Fagan (2013), Kelly et al. (2021), and Morrison and Glazier (2022), who illustrated that associating the school's TnL environment with personal as well as cultural experiences of students may improve student motivation and engagement to learn language more effectively. This incident highlights the necessity for a teaching technique for literacy that connects the student's background to literacy instruction at school, especially in remedial education contexts. Therefore, this study suggests analyzing the requirement for remedial teachers to foster culturally responsive teaching that focuses on acquiring literacy in Malaysian schools for underachieving students.

Culturally responsive teaching (CRT) integrates and acknowledges the students' culture into the school curriculum, including developing an essential relationship with the culture of the community. For example, Powell (1997), Gay (2000), and Ladson-Billings (2006) regarded the implementation of CRT as a direct response to concerns regarding differences in academic achievement, including high school dropout rates relying on socioeconomic class, race, as

well as language ability level. The CRT's viewpoint (Irvine et al., 2001) is best inferred, reacting to teaching techniques and traditional curricula that are often inadequate for students from diverse backgrounds and low socioeconomic status. Moreover, Civitillo et al. (2019) discussed how CRT draws attention to schooling norms when the values and expectations of middle - and upper - class students are privileged while history, culture, racism, and economics are frequently ignored. Regardless, the goal of CRT is to disseminate common information via a variety of methods, comprising a fundamental transformation of perspective on the diversity of human culture. It is a knowledge base of one's culture and others, a culturally friendly curriculum, and classroom teaching approaches.

Cultural elements in remedial education

The reality of Malaysian society is one where cultural and linguistic diversity is anticipated. Therefore, the national language was introduced to facilitate daily communication between communities. At school, the national language is utilized as the primary language of speech without neglecting the cultural diversity that exists in Malaysia. Therefore, cultural elements in education are introduced to symbolize the variety of society in Malaysia, including in the curriculum structure of remedial education. However, the efforts made by the government still need to be improved, especially in the context of teachers' teaching in schools. A study by Ugek & Badusah (2018) discovered that teachers face problems selecting appropriate language teaching strategies when teaching students from various backgrounds. This issue illustrates the need for a change in remedial education teaching, especially in selecting, planning, and implementing teacher instruction that involves cultural elements. It is even sadder when Nahar (2020) established that students who could not master basic literacy skills were from various cultural backgrounds.

According to Muniz (2019), teachers who teach language subjects need to analyze the characteristics of the language being introduced and improve their language pedagogy because language plays a crucial role in the culture of students. The teachers can apply the most comparative example in the students' daily life in language learning to improve the student's language proficiency. However, things have happened the other way around when a study conducted by Rampen (2017) on the teaching of teachers who inject cultural elements into language learning determined four problems that can be explored in remedial education, namely the time allocation for teaching preparation, teachers' knowledge about culture, cultural teaching resources, and the existing subject curriculum that supports cultural learning. In this regard, introducing culture in teaching is good, but some challenges must be overcome and require a more flexible solution with teacher instruction.

Oliveira & Spear-Swerling's study (2019) discovered that teachers still need to focus on teaching preparation of cultural elements in the classroom. This is because the teacher likes the idea but has limited time to prepare suitable material and has limited knowledge about the culture. Malek et al. (2019) also stated that teachers have limited time to discuss cultural elements in class because the curriculum's content needs to be denser and spent according to the students' short schooling period. Hence, the teacher experiences a problem with a very dense lesson topic and needs more time to handle the class by focusing on teaching with cultural elements alone. The same is the case with teachers' knowledge that is limited regarding the topic of culture in the eyes of students being taught when there is a proposal to empower the curriculum related to 'intercultural' to prospective teachers (Chong et al., 2017). The problem related to teaching with cultural elements is more significant when teachers identify that teaching reference sources such as textbooks do not detail examples of culture in the students' environment (Zakaria et al., 2018). In other words, the cultural standards are focused on a specific community and do not include the lives of students of different races or ethnicities.

The findings discussed indicated apparent problems that have prevented teachers from implementing culturally-based teaching in the classroom. The issues experienced should be addressed because the effect will cause student learning to be disrupted, and the original purpose of introducing cultural elements to students will be hindered. Past studies that explored the occurring problems will undoubtedly be an outstanding contribution to remedial education to explore the challenges that may be experienced among remedial teachers.

Needs analysis

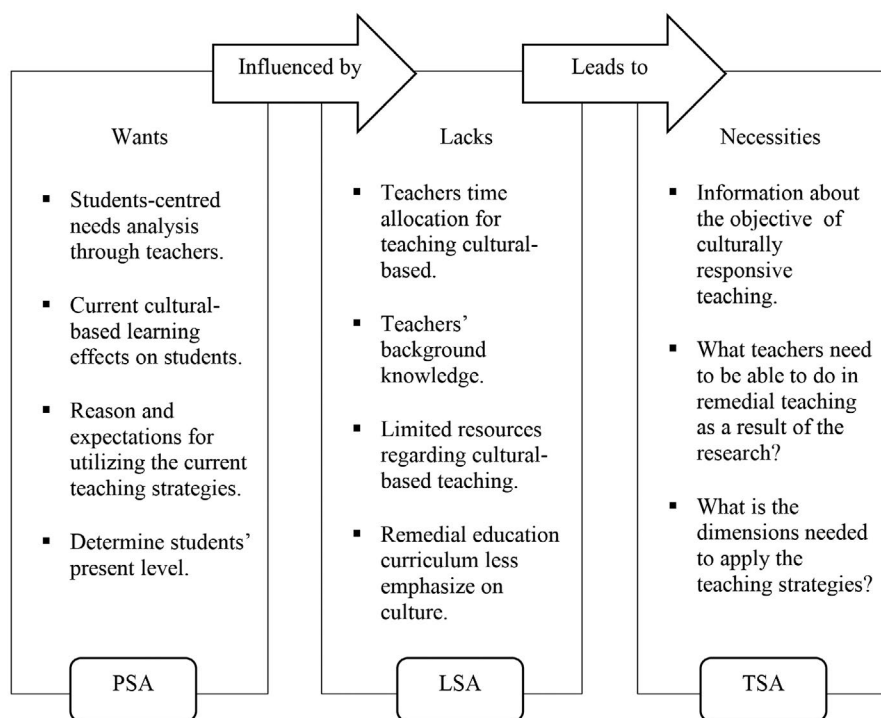
Designing and developing a teaching model for remedial education that is culturally responsive requires a needs analysis, commonly referred to as a needs assessment. Needs analysis is a crucial technique for determining the difference between the existing condition and the desired state (Witkin, 1994). Remedial education must be effective for schools. Therefore, past studies suggest that teachers utilize the background and culture of students as one of the teaching mediums to teach students (Bedard et al., 2011). Hence, the purpose of this needs analysis is to comprehend remedial teachers' perceptions of the necessity for developing a CRT model and aspects that may be employed to assist underachieving students in mastering basic literacy skills.

Although the previous study reveals solutions to issues in remedial education, less focus has been given to the teaching needs by integrating the components of the target and present situations (Wahyono & Puspitasari, 2015). Thus, this research intends to address the knowledge gap by evaluating the degree to which the present situation analysis (PSA), as well as target situation analysis (TSA) features, can assist in identifying the necessity of developing

a comprehensive teaching strategy for remedial education. In addition, the lack situation analysis (LSA) identifies the deficiencies in present instructional practices. As a result, Figure 1 demonstrates how PSA, LSA, and TSA are integrated into this research to examine the present occurrences with respect to the anticipated demands, teachers and students, and characteristics of CRT for remedial education.

Figure 1

A summary of needs analysis conceptual framework



Present situation analysis, lack situation analysis, and target situation analysis

The learner's current position is analyzed by PSA, which then displays the difference in comparison to the goal. Generally, PSA aims to meet students' "wants," or the areas they are eager to learn more about in class (Hutchinson & Waters, 1987). According to Robinson (1991), PSA is implemented to explore students' strengths and weaknesses in language learning. In this study, a PSA evaluation was performed on teachers' teaching reflections on the effects of cultural-based language learning on underachieving students in remedial

programs. Note that the purpose is to identify the reasons and expectations when teachers apply current teaching strategies to weak students. For instance, Ghani (2014) determined that teachers play a role when assessing the impact of learning on underachieving students.

On the other hand, LSA highlights gaps concerning what students need to improve their current language skills. The knowledge gap between students and what they ought to understand to function in the target setting is known as the deficiency. LSA focuses on analyzing learning situations that emphasize 'lacks', especially those that contradict the target's current 'wants' and 'necessities'. Apart from that, LSA in this study focused on exploring problems in cultural-based teaching in the context of current learning implemented in remedial education in schools. However, according to Hutchinson and Waters (1987), the lack of existing teaching does not necessarily match their real needs in TSA. Scholars consider the current target focus and student learning needs essential for developing the CRT model.

TSA is a needs analysis that emphasizes addressing the requirements of the target group during language learning (Hutchinson & Waters, 2004). TSA is a need determined by the target situation regarding skills and language use that need to be known. Here, TSA emphasizes the 'necessities' aspect in which the products produced can help students learn. In this study, the TSA assessment is to produce a CRT strategy framework for remedial education after assessing the existing teaching strategies teachers use during language learning. According to Rampen (2017), including the value of the cultural background of underachieving students in language learning will make it easier to adjust the vocabulary learned with their experiences.

Method

Research Design

Researchers in the past have offered a variety of methods for conducting a needs analysis. Depending on the aim of the needs analysis, a certain process must be chosen. Urun & Yazar (2015) stated that needs analysis may be performed in various ways for exploration, including deductively (surveys, questionnaires, etc.) or inductively (via interviews, case studies, etc.). It focuses on designing and evaluating existing syllabuses, curricula, materials, or lessons to identify whether it is crucial to implement CRT in remedial education and support remedial students. Note that a needs analysis was performed at the beginning of the study. The needs analysis was conducted as a descriptive survey to determine teachers' viewpoints regarding the needs, wants, and lacks, as well as the necessity of the teaching strategies. Technically, the needs analysis was implemented through a questionnaire to explore the necessity of developing teaching strategies that involve the students' cultural backgrounds.

Participants

The respondents were teachers teaching remedial programs in primary schools in urban and rural areas. This study involved 252 teachers with 1-21 or more years of experience in teaching remedial programs. Detailed information regarding gender, school types, and teaching experiences is presented in Table 1.

Table 1

Study group

Category	Detail	Number of teachers	%
Gender	Male	44	17.5
	Female	208	82.5
School types	Urban	139	55.6
	Rural	113	44.4
Teaching experiences	1-5 years	61	24.2
	6-10 years	59	23.4
	11-15 years	115	45.6
	16-20 years	7	2.8
	21 years above	10	4

Instruments

The designed questionnaire was based on the pertinent literature and prior research chosen to conduct a needs analysis for the teachers to implement CRT in remedial education. Accordingly, studies on CRT and remedial education (Byrd, 2016; Miller, 2020; Nilsson, 2016; Rampen, 2017; Scriven, 2019) were completed by researchers to form this questionnaire. Subsequently, potential questionnaire items were selected and written. Similarly, the dimensions and components introduced were considered. The scale's reliability was calculated using the internal consistency measure Cronbach's alpha, with a value of 0.954. This indicates that the instruments were appropriate for the study. The designed questionnaire contained five sections with 52 items, classified according to the needs analysis components as in Table 2.

Table 2*Questionnaire structures*

Needs Analysis Component	Questionnaire Section	Items
	The Demographic	3
Present Situation Analysis (PSA)	The effect of applying cultural-based teaching in literacy to remedial students.	10
Lacks Situation Analysis (LSA)	The challenge of implementing cultural-based teaching in literacy for remedial education.	9
Target Situation Analysis (TSA)	The necessity of a culturally responsive teaching model for remedial education.	3
	Culturally responsive teaching dimensions for remedial education.	27

Data collection

Data were collected among teachers who teach remedial education in selected districts in the middle state zone in Malaysia. The respondents were chosen utilizing a random sampling method, and their involvement was voluntary. Note that the questionnaire was distributed online through Google Forms during data collection. The online method was chosen because it was easier for teachers to answer the questionnaire using a device such as a mobile phone. Before distributing the questionnaire, rapport contact was made with higher education officials for each district involved. It was to facilitate the dissemination of data that can be conducted widely and focused on the desired group of teachers. All forms of purpose, objectives, and instructions regarding the questionnaire were given to teachers through the questionnaire. The period allotted to answer the questionnaire was three weeks. On average, it takes 10 minutes to answer the questionnaire. During this period, we successfully collected 252 questionnaires completed by teachers. The collection process was stopped as the number of respondents was sufficient to measure the questionnaire, according to the opinion of Krejcie and Morgan (1977). All collected data were confidential and analyzed for the purpose of the study.

Data analysis

The Statistical Package for Social Sciences (SPSS) version 26.0 software was used to evaluate the gathered data. Descriptive analysis was done for each domain and item to calculate the statistical mean and standard deviation. A 5-point Likert scale was used to establish teachers' judgments. The range was divided into two subranges: agreement attitude for estimate < 3.0 and disagreement attitude for estimate > 3.0 (Odeh, 2010).

Results

This study mainly focused on determining the perception of teachers' expectations from and towards remedial education by introducing CRT strategies. This study successfully analyzed teachers' needs, focusing on three elements: the necessities, lacks, and needs of remedial education.

Research question (RQ) 1: What impacts might cultural-based literacy instruction have on remedial students?

RQ 1 discusses the findings of the PSA, which explored the necessity of applying remedial teaching based on the existing culture.

Table 3

The impact of cultural-based teaching for basic literacy on remedial learners

Component	Mean	SD
Cultural socialization	4.18	.557
Support for positive interaction	4.08	.477
Promotion of cultural competence	4.08	.564
Diverse teaching practices	4.03	.529

The remedial students were assessed through teacher observation throughout TnL sessions in the classroom. Teachers discovered that when learning with cultural elements was implemented, students improved their cultural socialization, received support for positive interaction, and improved their cultural competence, as reported in Table 3. Teachers also found that the students were assessed to accept the diversity of their teaching practices when teachers implemented cultural learning. As a reference, it can be seen that the higher the mean received, the stronger the teacher's agreement was regarding the impact received by students during cultural-based teaching in the classroom.

Research Question (RQ) 2: What is the challenge in adopting cultural-based literacy instruction in remedial education?

RQ 2 examines the findings of the LSA, which explored the challenges teachers faced when implementing cultural-based instruction in remedial education.

Table 4 presents the findings of the challenges experienced by teachers in implementing cultural-based teaching in remedial classes. The teachers discovered it was difficult to obtain teaching resources to implement the teaching. In addition, the teachers also stated that there was a flaw in the structure of the remedial education curriculum, which caused difficulty in implementing the teaching ideology. Likewise, the teachers agreed that there

was a lack of teachers' knowledge among teachers when implementing cultural-based teaching. The teachers also analyzed a problem with time allocation in implementing the teaching practice regarding the cultural-based teaching strategies.

Table 4

The challenge of implementing cultural-based teaching for basic literacy in remedial education

Component	Mean	SD
Teaching resources	4.17	.745
Curriculum	4.16	.589
Teachers' knowledge	3.92	.667
Time allocation	3.84	.690

Research question (RQ) 3: What is the necessity for a culturally responsive teaching approach in remedial education?

RQ 3 explores the findings of the TSA, which explored the need to develop CRT for remedial study.

Table 5

The necessity of culturally responsive teaching for remedial education

Items/variables	Mean	SD
1. Remedial Education instructions must incorporate the student's culture to improve the student's basic literacy skills.	3.81	.665
2. Teachers need comprehensive information related to culturally responsive teaching to help improve students' basic literacy skills.	4.01	.592
3. Teachers need to be exposed to culturally responsive teaching models for remedial education.	4.04	.640
Overall mean score	3.95	0.554

Table 5 analyzes the need to implement CRT for remedial education. The teachers were asked three main questions about the need to implement the teaching practice. Findings indicate that the teachers agreed that students' background and culture were necessary for remedial school programs, especially to improve their basic literacy skills. The teachers also agreed that it was necessary for comprehensive information regarding CRT to help remedial students master the basics of literacy. Furthermore, the teachers acknowledged that teachers needed exposure to the responsive teaching model for remedial education. Overall, the three questions demonstrated a significant impression

that it was required to apply CRT practice. This means that it is necessary to implement CRT practices for remedial education to improve existing practices of cultural-based teaching.

Research question (RQ) 4: What are the dimensions for culturally responsive teaching in Remedial Education?

RQ 4 highlights the outcomes of the targeted dimensions to design CRT comprehensively through TSA.

Table 6

Culturally responsive teaching dimensions for remedial education

Items/variables	Mean	SD
Teaching	4.26	.459
Student and teacher interaction	4.25	.509
Classroom community	4.16	.452
Connecting	4.07	.464
Evaluation	4.07	.424
Acceptance	3.88	.604

Table 6 shows the dimensions suggested for developing a CRT strategy for remedial education. The teaching dimension received the highest requirement to be implemented in CRT practices for remedial school programs. In addition, the teachers considered the dimension of teacher interaction with students as one of the elements that needed to be included in the teaching practice as well as the classroom community dimension. This was seen as an appropriate practice to implement in the context of remedial education when teachers agreed to include the connecting and evaluation dimension as part of forming the CRT strategy. In addition, the acceptance dimension can be classified as a need to form CRT for remedial education, even though it recorded the lowest agreements among the teachers. Overall, all dimensions shown are at a significant level of agreement to be implemented as dimensions for CRT. This means that these six dimensions need to be implemented when developing CRT for remedial education.

Discussion

The research study reached the objectives in the aspect of PSA, LSA, and TSA. The PSA findings show that the existing cultural-based teaching clearly indicates students' acceptance when it is implemented. Hence, the component of cultural socialization was established to possess a substantial influence on remedial students' learning. This finding is consistent with Byrd's (2016) study, which explained positive changes in students' learning behavior when teachers address aspects of the student's background and culture. Specifically, this component focuses on culturally-related teaching competence dimensions. This

aligns with Civitillo et al. (2019), who categorized this as a learning activity in the classroom, allowing students to learn about traditions and history that are foreign to them while simultaneously acquiring mastery of learning skills.

In addition, the components of positive interaction, cultural competence, and diverse teaching practices were all agreed upon as elements that influence the learning of remedial students. According to Byrd (2016), incorporating student interests into the classroom will improve academic outcomes. This finding is also consistent with Lehner et al. (2017), who state that utilizing cultural elements in the classroom is currently one of the crucial teaching strategies. Even though the cultural elements introduced in the curriculum for remedial education need new touches in teaching, teachers believe they can impact student learning.

Therefore, the components explored are essential for developing the students' identity and skill mastery. This research concurs with previous findings (Yolak et al., 2019) that positive racial identity relates to student support systems in school and learning persistence. Therefore, cultural socialization in the curriculum structure and cultural polarization in the school environment are indirectly related to students' academic performance. The findings also suggest that the components are vital in developing students' identity and increasing skill mastery. These components are positively related to the impact on student learning, as supported by prior research (Byrd, 2016). Similarly, current research findings by Gay (2021) indicated that positive racial identity is associated with academic achievement. Thus, it can be stated that school cultural socialization is indirectly related to supporting academic achievement.

LSA results show that the appropriation of cultural-based teaching still faces several challenges within the remedial education context. Challenges identified in this study, such as teaching resources, existing curriculum, teacher knowledge, and time allocation, are not unique to Malaysia and exist in numerous other developing nations (Amalia & Wuryandani, 2020). Other than that, the problems established are significant to consider when making a plan for teaching with cultural elements, especially in the context of remedial education in Malaysia.

This finding discusses the problem of teaching resources, and the study indicates that teachers have problems obtaining cultural reference material for teaching. Furthermore, Zakaria et al. (2018) state that using reference materials, whether printed or online, is an important part of effective teaching, especially when teaching students from diverse backgrounds. These materials help teachers generate ideas, be creative in planning fun activities, and spark students' interest in getting to know other students from diverse backgrounds. Additionally, Ahmad (2019) express that teachers are committed to exemplary teaching when they provide space and time to check reference materials, especially to guarantee that students can practice their culture in the classroom.

This means that teachers need to use more reference materials to improve their work as teachers. If teachers know their subjects, students will most likely learn effectively and have fun learning.

The findings also discovered the curriculum factor as a challenge experienced by teachers when implementing cultural teaching in the classroom. The existing curriculum indeed emphasizes the cultural aspects introduced through textbooks. However, challenges are identified when the curriculum cannot serve students' diverse needs and backgrounds (Puteh & Ali, 2016). School students from various backgrounds also have different experiences from other students. This point is emphasized by Malek et al. (2019), stating that the assumptions in curriculum content do not consider what students bring into the classroom regarding their prior knowledge and culture. For example, some consider the curriculum biased towards the experiences of students living in cities. This can cause students discomfort in learning, causing them to lose interest and stop early in school. Therefore, there is a need for support in adapting the curriculum to the students' lifestyles regarding their experience and cultural background.

Consequently, the study results present the problems of teaching knowledge concerning the implementation of cultural-based teaching. According to Collett et al. (2021), teachers must strive to achieve instructional goals, have clear instructional ideas, and be prepared with various instructional activities to familiarize students with a mixed-cultural environment during language instruction in the classroom. Chong et al. (2017) agree with this belief and state that a classroom language teacher needs to teach language skills compatible with teaching approaches, methods, and techniques to address students from different cultures. Therefore, teachers should equip themselves with knowledge and be prepared to use effective teaching techniques appropriate to the situation. Previous researcher Shulman (1986) further elaborated on this theme by emphasizing that the teacher's knowledge was significant to the TnL process performance.

Time allocation is identified as one of the challenges. The findings indicate that teachers have difficulties when it comes to allocating time management for culturally related activities in the classroom and for the preparation of classroom materials. Although the issue of time allocation is not universally acknowledged in this finding, it is important to discuss it because it can impact teachers' instruction. In addition, Arrow et al. (2019) state that good time management is essential for teachers in culturally responsive classrooms to improve students' understanding, knowledge, and skills about culture. Moreover, Oliveira & Spear-Swerling (2019) agree that teachers' time management skills are essential to help students develop an awareness of existing cultural similarities and differences. This is because the teacher's knowledge is to be evaluated, and it takes a lot of time to get to know the student's culture. The opinion of Hizan

& Rodzalan (2020) on the phenomenon of ineffective time management also explained that the preparation of teaching materials for language literacy takes a lot of time because it is necessary to evaluate the level of difficulty, the appropriate language, the length of the selected text, and the message to be conveyed. As a result, creating material that considers the criteria requires more time than the teaching period in the classroom.

TSA yields the necessity of designing and delivering CRT within the remedial education context. This finding supports Gay (2002), Banks (2015), and Siwatu (2011), who established that each student learns differently and that a mix of different ways to teach is needed. Different, student-centered teaching methods will boost students' learning into more interesting and useful lessons (Norvedt et al., 2020). When students from different cultural and social backgrounds are in the same classroom, they will have different needs and expectations for learning (Brown et al., 2021). Students are likelier to have a good learning attitude when learning is fun and entertaining. Other than that, exciting learning experiences can help students learn better, expand their knowledge, and develop critical thinking skills important for self-development (Kotluk & Aydin, 2021). In remedial education, teachers use real-life examples to solve problems and explain a learning concept differently, aiding students to learn in the remedial classroom. This point aligns with what Zancanella and Rice (2021) presented; different teaching methods rely on the CRT idea to facilitate students' learning, including doing better in school.

The teachers agreed that all components of CRT should be used in the remedial education setting. In this research, CRT for remedial education classrooms was considered in terms of six aspects: 1) teaching, 2) connections, 3) acceptance, 4) classroom community, 5) student and teacher interaction, and 6) evaluation. Different teaching methods can help students learn as part of teaching practices. In addition, adding cultural elements to lesson plans and teaching in the classroom are both ways to make connections. Acceptance that includes building relationships means that teachers work to build good relationships with their students, creating a classroom learning environment that reflects the students' backgrounds. This ensures teachers and students can talk to each other well to close the gap, grading based on how well the student did and how it related to the student's experience.

It is important for teachers to learn about their students' cultural backgrounds and traditions to design CRT. For example, Chen & Yang (2017) assert that teachers must motivate students from various cultures to express their community experiences in the classroom and establish connections between these experiences and the content. Moreover, Brown et al. (2021) stress the need for teachers to exhibit a caring attitude that portrays a culture of awareness to prevent misunderstandings that might lead to academic apathy, student disobedience, and teacher irritation. Dreyfus (2019) determines that students

with different cultures will support good academic achievement and improve their social skills if the teacher involves the students' culture in the classroom. In short, to succeed in CRT, teachers must have a good foundation of knowledge about students with different cultures and backgrounds.

Strengths and limitation

There are still some limitations to this research. First, the methodological research approach usually relies on questionnaires to recognize teachers' perspectives on teaching literacy in remedial classes. Therefore, future research should employ alternative methodologies, such as in-situ interviews, to collect more information regarding the desires of students and teachers. Second, this study's sample included Malaysian teachers employed in middle-zone states. Thus, the number of samples is limited, and a small sample size was collected for this survey. As a result, the following study sample should suggest greater significance and cover additional state zones to collect more data for analysis. Lastly, time was one of the aggravating aspects of conducting this survey. In addition, the teachers had additional responsibilities at schools. Therefore, to ensure that the teachers had sufficient time to participate in this study, questionnaires via online platforms were used as the fundamental data-gathering technique. Consequently, the main strength of this study is that the sample was balanced by the selection of the study location, which reflects Malaysia's multi-racial, cultural, and background population. Hence, the results are very generalizable to the actual sample group of remedial teachers.

Conclusion

This research answered four questions by analyzing PSA, LSA, and TSA. Based on PSA, the research identified that former cultural-based teaching was acceptable in student learning. Nevertheless, this cultural-based teaching was identified as having various challenges to implement in TnL remedial education through LSA. Therefore, the TSA finding proposed a justification for implementing CRT for remedial education. This research discusses culture as the fundamental medium to be assimilated in teacher instruction. These concerns should be viewed as something other than a potentially challenging approach for teachers but rather as an opportunity to increase teachers' knowledge and pedagogical skills. Finally, this research described an overview of teachers' needs, which is expected to contribute as a source of theoretical reference to develop the content of specific teaching strategies for remedial education in the following study. In addition, the needs analysis method improved the findings to create comprehensive guidelines for teachers, considering that new solutions can change existing problems. It is also suggested that fellow researchers adapt the needs analysis method used for developmental studies in respective fields.

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Analiza potreba za razvoj kulturno osetljivog obrazovanja: Šta treba nastavnicima?

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Uvod: Kulturno odgovorna nastava modifikuje iskustvo učenja izgradnjom atmosfere koja poštuje, priznaje i uspostavlja kulturni kapital koji nastavnici i učenici stvaraju u učionici. Međutim, lekcije koje razmatraju kulturu moraju biti u potpunosti predložene u dopunskom obrazovanju. *Cilj:* Ova studija posmatra kulturu kao jednu od najznačajnijih varijabli koje treba primeniti u dopunskom obrazovanju, posebno u pomaganju učenicima da ovladaju veštinama pismenosti korišćenjem analize potreba za dopunske nastavnike. *Metod:* Procedura analize potreba fokusirana je na tri elementa: analizu situacije nedostatka, analizu sadašnje situacije, kao i analizu ciljane situacije. Nakon toga podaci su prikupljeni putem internetskog upitnika koji je uključivao 252 dobrovoljna dopunska nastavnika iz srednje državne zone u Maleziji. *Rezultati:* Nalaz analize sadašnje situacije rezimira učenje učenika u dopunskom obrazovanju, što ukazuje na značajan uticaj kada nastavnici koriste učenje zasnovano na kulturi. Ipak, analiza situacije nedostatka pokazuje da nastavnici nemaju pristup nastavnim resursima, a nastavni plan i program dopunskog obrazovanja ne naglašava učenje zasnovano na kulturi. *Zaključak:* Analiza ciljane situacije predlaže uvođenje kulturno odgovorne nastave sa komponentama podučavanja, povezivanja, prihvatanja, zajednice u učionici, interakcije i evaluacije, kao praktičnih i širokih pristupa dopunskom obrazovanju. Predlaže se da kreatori nastavnog plana i programa utvrde smernice za dopunske nastavnike u korišćenju kulturno odgovorne nastave za dopunsko obrazovanje.

Ključne reči: analiza potreba, dopunsko obrazovanje, kulturno odgovorna nastava

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Accessibility and comprehension of COVID-19 information for people with blindness and low vision

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Introduction. In crisis situations like the COVID-19 pandemic, timely and comprehensive health information for people with blindness and low vision is extremely important. Based on the information gathered, it is possible to respond appropriately to the health services needs of the pandemic. *Objectives.* The purpose of this study was to define the differences in demographic groups among 45 adults with visual impairment from Croatia in accessibility and comprehension of COVID-19 information during the lockdown and its impact on emotional distress and adherence to epidemiological measures. *Methods.* Mann-Whitney and Kruskal-Wallis tests were used to test for differences between demographic groups on the information accessibility and comprehension variables. Spearman's test of correlation coefficient was used to test the correlation between information accessibility and comprehension with emotional distress and adherence to epidemiologic measures. *Results.* The results showed a statistically significant difference for people with blindness and low vision older than 60 who have fewer problems than those 20-30 years old in the COVID-19 information accessibility. Those with higher information accessibility left their houses more rarely. Information accessibility showed no correlation with emotional distress. People with blindness and low vision with higher information comprehension expressed lower emotional distress and felt more certain about proper house hygiene upkeep. *Conclusion.* Higher attention should be given to the accessibility and comprehension of media information for people with blindness and low vision in critical situations that can lead to saving lives, in the case of the COVID-19 pandemic, by lessening social contact and keeping proper house hygiene.

Keywords: blind, low vision, COVID-19, information accessibility, comprehension

Introduction

The COVID-19 pandemic outbreak created an unprecedented situation in the recent past. The spread of a new infectious disease on a global scale created an immediate need and space for a large amount of information to answer the following questions: What is happening? What type of disease is it? What are the symptoms of the disease? How is it transmitted? What is the mortality rate? How can one protect oneself with family? What measures are being taken? What about public transportation and stores? Should one wear a mask? Where does one require a COVID-19 certificate? and many other questions.

Because of the relatively sudden onset of the pandemic, followed by the lockdown, accessibility and comprehension of information became key elements of communication between government (public health) agencies responsible for pandemic containment and the public. One segment of the public that was particularly interested in accurate and timely information was people with blindness and low vision (BLV). In addition to general nervousness and uncertainty in the face of the new situation, people with BLV were further stressed and worried by epidemiological measures based on a visual nature (keeping distance, appropriate hand disinfection, etc.) (Jondani, 2021; Sikirić & Mašić Fabac, 2022). Therefore, adequate and timely information was an essential part of the lives of people with BLV during the pandemic.

Even before the outbreak of the pandemic, the problem of access to health information and information about social care services among people with BLV was recognized. Beverley et al. (2004) claimed that access and provision of information were key to reducing inequalities in health and social care. The pandemic was believed to have increased inequalities and social exclusion of people with disabilities in terms of accessibility to health information through various channels (Kostanjevac & Bagaric, 2022).

Wang & Yu (2017) state that for people with BLV, the most important sources of information are interpersonal channels such as family and friends, followed by mass media in print, radio, television, and new information and communication technologies (smartphones, computers, internet). Ahmed & Naved (2020) consider that interpersonal channels are logical for people with BLV because they are immediate and faster to reach. On the other hand, the media is the main source of information in crisis situations because it provides basic information without room for speculation or rumors (Kostanjevac & Bagaric, 2022). People with BLV are most likely to seek information about health, social interactions, government information, and information about social rights and welfare policies, among others (Wang and Yu, 2017). The hierarchy by importance for people with BLV goes primary information about eye conditions, then health and social services and facilities, assistive devices, general health information, rights and finances, mobility, household and employment, education, and training (Beverley et al., 2007, 2011). Considering

the importance of health information, the sources of information on health and social issues for people with BLV are health professionals, social workers, civil society organizations, family and friends, educational institutions, and mass media (Beverley et al., 2011). In terms of health and social information, the COVID-19 pandemic created an environment full of new information and related concepts that needed to be understood and acted upon (Hardika et al., 2020). Understanding of vocabulary and information about COVID-19 varied by interest (understanding between educated and uneducated people) (Hardika et al., 2020).

With the pandemic, communication shifted primarily to the Internet, and demands for health information availability increased dramatically (Farooq et al., 2021; Hewitt & He, 2021; Kostanjevac & Bagaric, 2022). However, health information websites are not accessible and significantly affect access to information for people with disabilities, including people with BLV (Lüchtenberg et al., 2008; Dror et al., 2021; Hewitt & He, 2021; Siu et al., 2021; Yu, 2021). Using the Internet (IT) and websites also requires certain IT skills to be strengthened in people with BLV, especially in the context of a pandemic (Oviedo-Cáceres et al., 2021).

The aim of this paper is to determine the most affected demographic groups of people with BLV regarding accessibility and comprehension of media information in Croatia during the first COVID-19 lockdown in April 2020, as well as explore its correlation with emotional distress experienced by people with BLV and adherence to epidemiological guidelines. Based on this goal, three hypotheses were formed.

H1: There are statistical differences in accessibility and comprehension of media information between demographic groups of people with BLV.

H2: There is a statistically significant correlation between the accessibility and comprehension of media information and the emotional distress of people with BLV.

H3: There is a statistically significant correlation between accessible and comprehensible media information for people with BLV following epidemiological guidelines.

Methods

The questionnaire was completed by 45 people with BLV in May 2020. All participants were members of the Croatian Blind Union, which forwarded an open call to all its members to participate anonymously and complete the questionnaire online. Privacy of information was guaranteed, as well as the ability to withdraw consent to participate and use gathered information at any time during or after the completion of the questionnaire. Blindness was prevalent among 69% of participants (Table 1), and the rest identified as having low vision. As for gender, 21 participants were female and

24 were male. The mean age of participants was 49 ($M=49$, $SD=2.6$). Age ranged from 22 to 80. One participant from a nursing home and one student were excluded from further analysis since they did not form a group.

Table 1

Descriptive statistics for demographic groups

<i>Groups</i>	<i>n</i>	<i>%</i>
Blind	31	69%
Low vision	14	31%
Male	24	53%
Female	21	47%
Married	19	42%
Nonmarried	26	58%
Age 20-39	14	31%
Age 40-59	15	33%
Age >60	16	36%
Live alone	10	22%
1 cotenant	20	44%
2 cotenants	14	31%
House	24	44%
Apartment	20	53%
Employed	12	27%
Unemployed	11	24%
Retired	21	47%

Alongside demographic variables at the beginning of the questionnaire, seven variables questioned epidemiological guidelines adherence during the lockdown period, and two measured accessibility and comprehension of information on a 5-point Likert scale (Table 2). An emotional distress 5-point Likert scale of 10 variables with a high Cronbach's Alpha's coefficient ($\alpha= 0.906$) (Mašić Fabac & Sikirić, 2022) was used.

Table 2

Descriptive statistics of emotional distress and epidemiological guidelines variables

Variables		n	M	SD	Me
ED	Emotional distress scale	43	27.76	10.31	29
EPI1	I leave the house as least as possible.	45	4.29	1.07	5
EPI2	I always use a mask and protection gloves while being outside.	45	3.64	1.40	4
EPI3	I feel uncertain about maintaining proper hygiene in indoor spaces.	45	1.89	1.36	1
EPI4	I feel uncertain about keeping proper hand hygiene.	45	1.53	1.05	1
EPI5	I adhere to guidelines about avoiding touching my face, eyes, and mouth while outside.	45	4.64	.80	5
EPI6	When I get home, I take off my shoes and disinfect them.	45	3.18	1.51	3
EPI7	I regularly ventilate the rooms in my house.	45	4.76	.67	5
Accessibility information	Media information on COVID-19 was accessible.	45	4.73	.72	5
Comprehension information	Media information on COVID-19 was comprehensible.	45	4.53	.84	5

IBM SPSS Statistics version 26 for Windows was used to analyse the results. Due to missing values in the emotional distress scale, only 43 cases were considered in testing the second and the first hypothesis because the group of students and the group living in a nursing home contained only one participant. With descriptive statistics, nonparametric methods Mann-Whitney and Kruskal - Wallis tests were used to test for differences between groups, and the Spearman coefficient was used to test for correlation between variables.

Results

Descriptive statistics

Accessibility information had a mean of 4.73 (N=45, M=4.73, Me=5, SD=.72), and information comprehension had a lower value of 4.53 (N=45, M= 4.53, Me=5, SD=.84) both on a 5-point Likert scale. Table 1 shows over 82% of participants (n=37) scored a maximum (total agreement) on a 5-point

Likert scale on the variable Accessibility (*Media information on COVID-19 was accessible*). A smaller percentage of 69% (n=31) expressed total agreement on the variable Comprehension (*Media information on COVID-19 was comprehensible*), with another 20% (n=9) mostly agreeing. Out of those who had completely accessible information, only 76% (n=28) completely agreed it was completely comprehensible. The emotional distress scale had a mean of 27.76 on a scale with a minimum score of 10 to a maximum score of 50 (N=43, M= 27.76, Me=29, SD=10.31).

The results in Table 3 show that people with BLV had high adherence to epidemiological guidelines (Me=5) in ventilating rooms at 82% (n=37), avoiding touching their face while being outside at 78% (n=35), keeping proper hand hygiene at 69% (n=31), keeping proper house hygiene at 64.5% (n=29) and leaving the house as least as possible at 60% (n=27). The lower compliance was in wearing masks and gloves while leaving the house at 40% (n=18) with a mean of 4 (Me=4) and taking off shoes after being outside and disinfecting them after coming inside the house at 24.4% (n=11) with the mean of 3 (Me=3).

Table 3

Percentages of response for information and epidemiological guidelines

Variables	Completely agree	Mostly agree	Nor agree nor disagree	Mostly disagree	Completely disagree
Accessibility information	82.2	13.5	2	-	2
Comprehension information	69	20	9	-	2
EPI1	60	20	13	2	4
EPI2	40	18	20	11	11
EPI3	9	7	13	7	64
EPI4	7	-	2	22	69
EPI5	78	13	7	-	2
EPI6	24.4	24.4	20	6.7	24.4
EPI7	82	16	-	-	2

Demographic differences

Results in Table 4 show accessibility for demographic groups having high means from 4.30 to 4.95. Comprehension variable means vary from 3.9 to 4.78. Those over 60 and those who live alone considered accessibility not to be an issue since there are no variable variations in those groups, with a constant result of complete accessibility of information.

All accessibility and comprehension of information variables groups (Table 4) did not show a normal distribution on a Shapiro-Wilk test, with p values for all equalling less than .05 ($p > .05$). Based on those results, a nonparametric method Mann-Whitney test was used to test for differences between two demographic groups, and the Kruskal-Wallis test was used to test differences between three groups on the accessibility and comprehension of information variables. For those with a statistically significant difference on a Kruskal-Wallis test, the Mann-Whitney test was used to determine which pairs of the three groups had statistically significant differences.

Table 4

Shapiro Wilks tests for demographic groups with means and standard deviation

Variables groups	Accessibility					Comprehension				
	M	SD	W	df	p	M	SD	W	df	p
Blind	4.84	.45	.40	31	.00	4.65	.66	.58	31	.00
Low vision	4.50	1.16	.50	12	.00	4.17	1.19	.72	12	.00
Male	4.70	.92	.38	23	.00	4.52	.99	.56	23	.00
Female	4.80	.41	.49	20	.00	4.50	.68	.71	20	.00
Age 20-39	4.36	1.15	.63	14	.00	4.36	1.21	.61	14	.00
Age 40-59	4.86	.36	.42	14	.00	4.57	.64	.68	14	.00
Age >60	Constant variable (value 5)					4.60	.63	.66	15	.00
Live alone	Constant variable (value 5)					4.78	.66	.39	9	.00
1 cotenant	4.85	.36	.43	20	.00	4.40	.68	.76	20	.00
2 cotenants	4.43	1.15	.58	14	.00	4.50	1.16	.51	14	.00
House	4.65	.93	.44	19	.00	4.39	.98	.59	19	.00
Apartment	4.84	.37	.44	23	.00	4.63	.68	.34	23	.00
Employed	4.83	.38	.46	12	.00	4.75	.62	.63	10	.00
Unemployed	4.30	1.33	.62	10	.00	3.90	1.28	.824	10	.02
Retired	4.95	.22	.23	20	.00	4.65	.57	.632	20	.00

* $p > .05$

Mann-Whitney test does not show a statistical difference in comprehension or accessibility of information between those with different vision status, gender, or household type, with p values for all equalling more than .05 ($p < .05$) shown in Table 5.

Table 5

Mann-Whitney tests for demographic differences in accessibility and comprehension

Groups	Accessibility			Comprehension		
	U	Z	p	U	Z	p
Vision status	182.5	-1.27	.20	179.5	-1.12	.25
Gender	250.0	-.06	.94	226.00	-.72	.46
Household type	214.0	-1.14	.25	210.50	-.84	.39
Age 20-39 vs. Age 40-59	85.5	-1.08	.27			
Age 20-39 vs. Age >60	72.0	-2.56	.01*			
Age 40-59 vs. Age >60	96.0	-1.85	.06			

*p<.05

Kruskal-Wallis test in Table 6 shows a statistically significant difference in the accessibility of information among different age groups ($H=6.69$, $df=2$, $p=.035$), with a statistical difference between the youngest and the oldest age group shown by Mann-Whitney test participants ($U=72$, $Z=-2.56$, $p=.01$) out of all pairs in Table 5. Those who are the oldest ($Me=5$) have fewer difficulties in accessibility to media information than those the youngest ($M=4.36$). No statistical difference was found by the Kruskal-Wallis test between those of different work statuses or the number of household members. H1 can be partially confirmed.

Table 6

Kruskal-Wallis test for demographic differences in accessibility and comprehension

Groups	Accessibility			Comprehension		
	H	df	p	H	df	p
Age	6.69	2	.03*	.02	2	.98
Household members	3.76	2	.15	4.18	2	.12
Work status	5.72	2	.07	4.48	2	.10

*p<.05

An emotional distress scale with 10 variables (Mašić Fabac & Sikirić, 2022) was used. The sum of results on these ten variables described the level of emotional distress. Shapiro-Wilk test shows accessibility and comprehension of information variables not having a normal distribution ($p=.000$), but the emotional distress variable did have a normal distribution ($p=.05$) (Table 7).

Table 7

Shapiro Wilks test for correlation variables with means and standard deviation

Variables	N	Mean	SD	Shapiro-Wilks test		
				W	df	p
Accessibility information	45	4.73	.72	.42	45	.00
Comprehension information	45	4.53	.84	.61	45	.00
Emotional distress	43	27.76	10.31	.60	43	.05*

* $p > .05$

Therefore, Spearman's correlation coefficient test was further used to test the correlation between variables (Table 8). It showed a statistically significant correlation between people with BLV emotional distress with comprehension of COVID-19 media information ($n=43$, $r=-.42$, $p=.005$), but not the accessibility of COVID-19 media information ($n=43$, $r=.04$, $p=.801$) since the p-value is larger than 0.05. The calculated correlation between comprehensible information and the level of emotional distress ($r=-0.42$) shows a medium correlation effect size (Cohen, 2013). Lower comprehension of information results in higher emotional distress in people with BLV. H2 is partially confirmed.

Table 8

Spearman correlation coefficient between accessibility and comprehension with emotional distress and epidemiological guidelines

Variables	n	M	SD	Me	Accessibility		Comprehension	
					r	p	r	p
Emotional distress	43	27.76	10.31	29	.04	.80	-.42	.00*
EPI1	45	4.29	1.07	5	.52	.00*	.24	.10
EPI2	45	3.64	1.40	4	.12	.40	-.06	.65
EPI3	45	1.89	1.36	1	-.08	.59	-.38	.01*
EPI4	45	1.53	1.05	1	-.04	.97	.09	.51
EPI5	45	4.64	.80	5	.18	.22	.28	.06
EPI6	45	3.18	1.51	3	.26	.08	.06	.65
EPI7	45	4.76	.67	5	.26	.07	-.01	.91

* $p < .05$

Epidemiological guidelines were described by seven variables on a 5-point Likert scale (Table 2). All epidemiological guidelines variables did not show a normal distribution on a Shapiro-Wilk test with p values for all equalling less than 0.05 ($p=.000$). Spearman's test of correlation coefficient (Table 8) showed a statistically significant correlation between access to information and leaving the house as little as possible ($r=.52$, $p=.000$), which being larger than 0.5 shows a large correlation effect size (Cohen, 2013). The higher the accessibility of information, the fewer people leave the house. There is also a statistically

significant correlation between COVID-19 information comprehension and uncertainty about proper cleaning of the living environment ($r=-.38$, $p=.010$), indicating a medium effect size (Cohen, 2013). The lower the media information comprehension, the more people with BLV feel uncertain if they maintain the proper hygiene of their living spaces. H3 is partially confirmed.

Discussion

This study highlights the challenges faced by people with BLV during the COVID-19 lockdown, particularly in terms of accessing and comprehending media information. The research partially confirmed hypotheses by showing demographic differences in accessibility, a correlation between comprehension and emotional distress, and associations between comprehension and adherence to guidelines. The findings emphasize the need for targeted strategies to improve accessibility and comprehension of important information during such crises, especially for vulnerable groups such as people with BLV.

The general conclusion of the research by Dror et al. (2021) is that the accessibility of web information contains numerous barriers. According to the same research, Croatia has achieved a very good result in both European and world comparisons, with a low number of errors in the accessibility of websites providing COVID-19 information. Although high percentages of overall agreement on the accessibility and comprehension variable initially indicate a high level of satisfaction with media reports on COVID-19, looking more closely, that is not the case. People with BLV cannot access almost 20% of information from media and they cannot completely understand another 30% of it, since one can only judge the comprehension of those that are available to them or that it has been exposed to. When taking into account the total sample's accessible and comprehensible information, out of 45 participants, eight of them (18%) did not have access to media information, and another nine (20%) out of those who had complete access did not consider it completely comprehensible. That is, more than a third of the participants ($n=17$) did not have available clear information, leaving 28 people with BLV (62%) that had complete access to and comprehension of media information. This lowered comprehension could be related to speech *synthesizers* and the speed at which they heard the information (Hjelmquist, Dahlstrand & Hedelin, 1992). An increase in speed could inhibit the processing of information and, with that, its comprehension. These findings highlight the digital inequality that can arise from several reasons, including inaccessibility to digital resources and lack of skills or confidence in using those technologies. Robinson et al. (2021) found that the pandemic exacerbates digital inequality to the detriment of those with less digital confidence. Aside from common factors such as inaccessibility of information or lack of skills, Beverley et al. (2007) contend that people with BLV bypass health information in some forms of information-seeking and choose to avoid it. We need to take into account

that people with BLV cannot judge how much information is not experienced from a visual source (e.g., chart on TV). Since 70% of our participants are blind, they may not be aware of graphs and schemes even existing, so they cannot judge their accessibility. It can also be partially explained by relying solely on the hearing information from TV, radios, speech *synthesizers*, and screen readers that cannot access all info on news portals, e.g., graphs that describe valuable information on the pandemic.

The result regarding age differences in accessibility was the opposite of the expected. With the constant advances in technology and the need to learn how to use those technologies, it would be expected that those who are older would have more problems with the accessibility of information. Age differences in information accessibility can also be explained by age-related visual impairment. Those in our sample in the age group of 20-39 were more likely to receive assistive technology training during their education if their visual impairment was of congenital or childhood occurrence, and those with acquired impairment were more likely to receive professional rehabilitation in relation to keeping their job. Those who were over 60, with a high percentage of retired, and with age-related visual impairment did not have rehabilitation services. Therefore, a lack of technology knowledge would not enable them to access information. Wang & Yu (2017), in their study on the daily information-seeking behaviour of people with BLV, found that people over 60 years old have lower information needs and usually seek them for hobbies and recreation. Young people have greater information needs, especially for social rights and welfare policies, employment, and health information. The results showed the accessibility of information is not a concern for older people with BLV. That could be explained by their lowered information needs or lack of knowledge and use of new technologies. They could possibly rely mostly on radios and TV since those were their primary sources of information while growing up. Other technologies such as mobile phones, the internet, social media, computers, and tablets could not be as relevant to their informing or the main source. Therefore, perhaps they did not consider new technologies in information accessibility as relevant or more important than TV or radio. With age, factors such as work memory, attention, and cognitive skills lower (Kim et al., 2016), as well as processing speed (Murman, 2015), the authors expected lowered comprehension of information with age. But the results did not show that. The reason aging has not influenced comprehension of information could be explained by cumulative knowledge not declining with age (Murman, 2015), which one uses to process new information.

Since there is no correlation between the accessibility of information and emotional distress, but there is a correlation between information being comprehensible and the level of emotional distress, it indicates a need for clear and comprehensible media reporting. The results show that the lower the comprehension of information about COVID-19, the higher the emotional

distress that people with BLV feel. Due to the confusion regarding information and proper understanding of information, people with BLV feel higher stress. Information accessibility shows no correlation with emotional distress, indicating that people with BLV have found ways to access information from inaccessible media or are simply not bothered by the information they have no access to. These findings are partially supported by Robinson et al. (2021), whose research showed that individuals with lower digital confidence understood less COVID-19 information and exhibited physical symptoms of anxiety. Their results indicate that individuals with digital confidence are less likely to exhibit pandemic anxiety with physical symptoms and adequately comprehend more important COVID-19 information. Social media (social networks) and other websites during the pandemic resulted in information overload among the population, in contrast to official public health websites that provide concise information (Farooq et al., 2021; Soroya et al., 2021). Such information overload leads to greater stress among people and the inability to adhere to specific epidemiological guidelines (self-isolation) (Farooq et al., 2021).

Compliance with the measures of COVID-19 is determined by several factors at different levels. The socioeconomic and political context, the individual's social and cultural values, social cohesion, and working conditions, among others, play an important role in the individual's decision to adhere to epidemiological measures (Ahmadi et al., 2022). In addition, adherence depends on sociodemographic variables, attitudes toward COVID-19, trust in institutions, approval of conspiracy theories, media, ability to follow guidelines, individual's scientific literacy, social network, and public health communication strategies (Moran et al., 2021). Keeping a physical distance, wearing masks, and maintaining hand hygiene are proven nonpharmaceutical measures to reduce viral transmission (Moran et al., 2021). Therefore, it is reasonable to expect the lowest adherence to those measures that were least represented in the information, whose effectiveness is not clearly communicated, or that are difficult to monitor with impaired vision, such as disinfecting shoes or wearing gloves. Masks pose a problem for people with visual impairment because it is difficult to ensure their correct placement non-visually. In some situations, the use of olfactory information is prevented, and visual problems (fogging of glasses) occur when mask and glasses are worn together (Jondani, 2021).

The results show that the COVID-19 information did not give people with BLV enough comprehensible information regarding how to properly clean their homes and remain safe in their homes because those are the areas where they feel the most uncertainty. Those who found the information about COVID-19 accessible obviously heard about the need to minimize social contact and, therefore, remained inside the house more than those who found the information about COVID-19 inaccessible. Understanding epidemiological measures depends on both the health literacy of the individual and the level

at which the information is presented. If the information is not written for the general population but only for the better educated, it will be accessible to only a portion of the population (Valizadeh-Haghi et al., 2021). Higher health literacy has a positive impact on the awareness of COVID-19 as well as adherence to related epidemiological measures (Clements, 2020; Naveed & Shaukat, 2022). Available online sources of information and their accuracy are critical in motivating the population to adhere to epidemiological guidelines during a pandemic (Farooq et al., 2021). Knowledge correlates positively with following protective epidemiological guidelines (Soederberg Miller et al., 2021).

The authors did not consider the sources of receiving information, or which media sources of information people with BLV found the most inaccessible. Generalization of the results due to the small sample size is not possible, and one must consider that the sample was that of convenience. The effect of the lack of comprehensible information on protection from COVID-19 and its possible consequences have not been researched. The difference between listening information comprehension and Braille reading information comprehension was also not distinguished. It was also not distinguished whether the participants listened to natural speakers or synthesizer voices.

Another limitation of the study is that possibly only those interested in the research topic chose to participate, which could also mean they were affected more greatly by the pandemic than those who did not choose to participate. Also, a very small number of people with blindness and low vision completed the questionnaire compared to all members of the Croatian Blind Union. Those not members of the Union did not receive the open call. Also, those without knowledge of computer technologies to complete the questionnaire were excluded, as well as those who did not have a sighted helper.

Conclusion

Several important conclusions emerge from this research. In daily life, accessible and comprehensible information was very important for people with BLV, especially for those younger than 40, since they were the most affected group. The importance of accessibility and comprehensibility increases dramatically in critical situations that require daily behavioural changes. Good comprehensibility of pandemic information was an important factor in compliance with epidemiological measures and in preventing a COVID-19 infection. In addition, the comprehensibility of the same information was an important factor in controlling the stress levels of people with BLV during the pandemic. In the future, when concerned with life-threatening circumstances, accessible and comprehensible information must be a standard and not just good luck for people with BLV. Younger people with BLV access information on many different platforms, which all should be equally accessible and comprehensible. Reporters and media developers should be aware of that.

With participants' age, primary sources of information access may vary, so adding these variables in further research about the accessibility of information in Croatia for people with BLV could explain areas that could be improved regarding making their information accessible and comprehensible. The impact of the inaccessibility and comprehension of information that is highly relevant and valuable for life preservation, especially for those with a higher risk of mortality due to COVID-19 infection, like persons with a disability, must be minimized and further researched.

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Pristupačnost i razumevanje informacija o kovidu 19 za slepe i slabovide

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Uvod: U kriznim situacijama kao što je pandemija kovida 19 za osobe sa oštećenjem vida izuzetno su bitne pravovremene i razumljive zdravstvene informacije. Na osnovu prikupljenih informacija moguće je adekvatno odgovoriti na zahteve zdravstvenih službi odgovornih za suzbijanje pandemije. **Cilj:** Cilj ovog istraživanja bio je da se utvrde razlike među demografskim grupama osoba sa oštećenjem vida u odnosu na pristupačnost i razumevanje informacija o kovidu 19 za vreme izolacije, kao i njihov uticaj na emocionalni distres i pridržavanje epidemioloških mera. **Metode:** Mann–Whitneyev i Kruskal–Wallisov test korišćeni su za testiranje razlika među demografskim grupama na varijablama pristupačnosti i razumevanje informacija o kovidu 19. Spearmanov test korelacije korišćen je za testiranje korelacije između pristupačnosti i razumevanja informacija i emocionalnog distresa i pridržavanja epidemioloških mera. **Rezultati:** Rezultati pokazuju statistički značajnu razliku kod osoba s oštećenjem vida starijih od 60 godina koje imaju manje problema u pristupu medijskim informacijama od onih između 20 i 30 godina. Osobe sa većom pristupačnosti informacija ređe napuštaju svoje kuće. Pristupačnost informacija ne pokazuje korelaciju sa emocionalnim stresom. Osobe s oštećenjem vida koje imaju veće razumevanje informacija izražavaju niži emocionalni stres i sigurnije su u pravilno održavanje kućne higijene. **Zaključak:** U slučaju pandemije kovida 19 potrebno je posvetiti više pažnje pristupačnosti i razumevanju informacija osoba sa oštećenjem vida u kritičnim situacijama koje mogu voditi očuvanju života, kroz smanjene kontakte i sigurnije održavanje higijene kuće.

Ključne reči: slepi, slabovidi, kovid 19, pristupačnost informacija, razumevanje

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Samoprocena angažovanja učenika sa smetnjama u razvoju u školskom kontekstu

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Uvod: Angažovanje učenika u školi predstavlja stepen do kojeg se učenici ulažu, koliko su motivisani i voljni da učestvuju u nastavnim i vannastavnim aktivnostima u svojoj školi, što u velikoj meri ima uticaj na njihov budući akademski i profesionalni uspeh. *Cilj:* Cilj ovog istraživanja je da se ispita samoprocena angažovanosti učenika sa smetnjama u razvoju u školskom kontekstu. *Metode:* Uzorak istraživanja sastojao se od 148 učenika sa smetnjama u razvoju, oba pola (61.5% dečaka), prosečnog uzrasta 13.9 godina, koji pohađaju inkluzivne i osnovne škole za obrazovanje učenika sa smetnjama u razvoju i invaliditetom. Za utvrđivanje angažovanosti korišćena je Skala angažovanosti učenika. *Rezultati:* Dobijeni rezultati pokazuju da su kod većine učenika sa smetnjama u razvoju bihevioralna i emocionalna angažovanost na višem nivou od kognitivne i da sa uzrastom raste nivo angažovanosti na bihevioralnoj i kognitivnoj komponenti. Istovremeno, na domenu kognitivno angažovanje statistički značajno više skorove imali su učenici koji pohađaju škole za učenike sa smetnjama u razvoju i invaliditetom. *Zaključak:* Bihevioralno, emocionalno i kognitivno angažovanje doživljava se kao potencijalno efikasan odgovor na probleme koji se javljaju kod učenika sa smetnjama u razvoju i trebalo bi ga uzeti u obzir prilikom prevencije problematičnih obrazaca koji se mogu javiti u vezi sa školskim kontekstom.

Ključne reči: angažovanost učenika, učenici sa smetnjama u razvoju, akademska postignuća, školsko okruženje

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Napomena: Ovaj članak je nastao kao rezultat rada na doktorskoj disertaciji „Faktori doživljaja pripadnosti školi učenika sa smetnjama i poremećajima u razvoju“, koja treba da se odbrani na Fakultetu za specijalnu edukaciju i rehabilitaciju Univerziteta u Beogradu.

Uvod

Angažovanje učenika u školi, školska angažovanost ili školsko angažovanje je predmet interesovanja istraživača iz različitih oblasti (Alrashidi et al., 2016; Appleton et al., 2008; Carter et al., 2012; Fredricks et al., 2004; Li & Lerner, 2011; Upadyaya & Salmela-Aro, 2013).

Poslednjih godina postoji sve veća zainteresovanost za izučavanje ovog koncepta, što se može objasniti potencijalom i jačinom koje ima u rešavanju brojnih i konstantnih problema u obrazovnom kontekstu, poput niskih postignuća učenika, visoke stope napuštanja školovanja, javljanja dosade i slično (Chapman et al., 2011; Fredricks, 2015, svi prema Fredricks et al., 2016). Drugim rečima, angažovanje učenika u školi viđeno je kao potencijalni odgovor na navedene probleme jer obuhvata procese koji, teoretski, služe za promociju učenja i postignuća i, praktično, mogu biti podstaknuti kod učenika na razne načine (Finn, 1989; Fredricks et al., 2004).

Angažovanje učenika u školi predstavlja „opšteprihvaćen i proaktivan izraz koji se odnosi na kvalitet participacije, ulaganje, posvećenost i identifikaciju učenika sa školom i školskim aktivnostima” (Alrashidi et al., 2016, str. 42). Ono odražava stepen do kojeg se učenici ulažu, koliko su motivisani i voljni da učestvuju u aktivnostima (nastavnim i vannastavnim) u svojoj školi (Skinner et al., 2009), što u velikoj meri ima uticaj na njihov budući akademski i profesionalni uspeh (Appleton et al., 2008; Charkhabi et al., 2019).

Koncept školskog angažovanja razlikuje se od autora do autora. Prema Vilmsu (Willms, 2003) školsko angažovanje obuhvata ponašajnu komponentu koja se odnosi na učešće učenika u školskim aktivnostima (npr. pohađanje nastave, uključivanje u vannastavne aktivnosti, izrada domaćih zadataka itd.) i psihološku komponentu koja podrazumeva osećaj pripadnosti i osećaj socijalne povezanosti učenika u školi. Shodno tome, podaci u literaturi navode da školsko angažovanje dovodi do više pozitivnih ishoda, poboljšanja akademskih performansi učenika i unapređenja akademskog uspeha (Ketonen et al., 2016), mereno i numeričkim ocenama i rezultatima na standardizovanim testovima (Yonezawa et al., 2009), zatim do redovnog pohađanja nastave (Fredricks et al., 2004) i inhibicije rizičnog ponašanja mladih (smanjenje delinkventnog ponašanja, upotrebe psihoaktivnih supstanci, rane seksualne aktivnosti; Asogwa et al., 2020). Zatim, postoje autori koji smatraju da je školsko angažovanje veza i posvećenost školi i motivacija za učenje (Simons-Morton & Chen, 2009), dok ga neki autori smatraju aktivnim angažovanjem, čvrstom posvećenošću i koncentrisanom pažnjom, za razliku od površnog učešća, apatije ili nezainteresovanosti (Newman et al., 1992), ili iskustvom povezivanja učenika sa školom (Veiga et al., 2012).

Finov model participacije i identifikacije (Finn, 1989) predlaže dva elementa školskog angažovanja: bihevioralni i emocionalni. Ovaj model kasnije je evoluirao dodavanjem i kognitivne komponente (Appleton et al., 2008).

Ključna hipoteza u istraživanju školskog angažovanja jeste da bi deca imala koristi od školovanja, moraju učiniti više od jednostavnog pohađanja škole ili prisutnosti u učionicama. Ona moraju „angažovati” okruženje u učionici na načine koji promovišu učenje. U istraživanju ove hipoteze opšte je prihvaćeno da se školsko angažovanje smatra metakonstruktom koji obuhvata sva tri oblika, domena ili komponente angažovanja kao potencijalne determinante učenja i postignuća – bihevioralnu, emocionalnu i kognitivnu (Fredricks et al., 2004). Bihevioralna komponenta angažovanja učenika odnosi se na učešće u okruženju za učenje i, iako je definisana na različite načine, npr. pozitivno ponašanje (Finn, 1993), napor, pažnja i upornost (Skinner & Belmont, 1993), inicijativa (Finn, 1989), često je operacionalizovana u pogledu toga koliko se deca konstruktivno ili kooperativno angažuju u zadacima i aktivnostima u učionici (Buhs & Ladd, 2001). Emocionalni angažman definisan je kao osećaj učenika prema školi i operacionalizovan kao dečja osećanja prema vršnjacima, nastavnicima, školskom radu ili njihovim afektivnim reakcijama na učionicu ili širi školski kontekst (Stipek, 2002). Drugo, manje uobičajeno tumačenje emocionalnog angažmana nazvano je „identifikacija sa školom”, i definisano je kao stepen do kojeg deca osećaju da vrednuju i pripadaju školi (Finn, 1989). Kognitivno angažovanje generalno se odnosi na nivo obrade ili intelektualnog napora koji učenici posvećuju savladavanju zadataka tokom učenja i na različite načine je konceptualizovano kao psihološko ulaganje u učenje i ovladavanje veštinama (Newmann et al., 1992), razmišljanje usmereno na zadatak (Helme & Clarke, 2001), korišćenje kognitivnih strategija ili strategija učenja (Lee & Anderson, 1993) i sklonost ka izazovu, fleksibilno rešavanje problema i pozitivno suočavanje sa neuspehom (Connell & Vellborn, 1991).

Kada su u pitanju učenici sa smetnjama u razvoju, navodi iz malo dostupne i relevantne literature ukazuju na to da se školsko angažovanje proučava kao indikator uspešnosti implementacije inkluzivnog obrazovanja. Podaci iz kvalitativne studije koju su sprovedi Erikson i saradnici (Eriksson et al., 2007) upućuju na to da se u inkluzivnom obrazovanju učenici sa smetnjama u razvoju manje angažuju u onim aktivnostima iz kojih češće bivaju isključeni (npr. angažovanje u nastavnim predmetima poput matematike, zajednička igra ili boravak tokom odmora). Interesovanja istraživača vezana su i za ispitivanje doprinosa različitih faktora: vrste i težine smetnje, karakteristika obrazovnog okruženja, te interakcije između učenika (Rose & Monda-Amaya, 2012). Postizanje i održavanje školskog angažovanja za učenike sa smetnjama u razvoju trebalo bi da bude ključni zadatak obrazovnog sistema, jer evidentirana oštećenja vode ka većem riziku za odustajanje od škole. U Evropi i Severnoj Americi školsko angažovanje je prediktor napuštanja, odnosno završetka obrazovanja (Charkhabi et al., 2019). U našoj sredini još uvek nema dovoljno istraživanja koja bi potvrdila ove navode.

Imajući u vidu da se koncept školskog angažovanja razvio kao veoma popularna oblast, kao i da rezultati mnogih istraživanja ističu važnost ove procene radi adekvatnog planiranja modela školovanja dece sa smetnjama u razvoju, cilj rada je bio da se izvrši samoprocena nivoa angažovanosti učenika sa smetnjama u razvoju u školskom kontekstu. Pretpostavka je da se nivo, odnosno povećanje angažovanja dešava u svim dimenzijama, kao i da nivo angažovanja zavisi od ličnih (pol, uzrast i vrsta smetnje) i kontekstualnih faktora (tip škole).

Metode

Uzorak

Uzorak istraživanja formiran je od 148 učenika oba pola ($n = 91$, $f = 61.5\%$ muškog pola), VII ($n = 88$, $f = 59.5\%$) i VIII ($n = 60$, $f = 40.5\%$) razreda osnovne škole, prosečnog uzrasta 13.9 ($SD = .880$) godina, različitih smetnji u razvoju. Od ukupnog broja ispitanika 108 (73%) učenika pohađalo je škole za obrazovanje učenika sa smetnjama u razvoju i invaliditetom, a 40 (27%) učenika pohađalo je inkluzivne škole. U odnosu na vrstu smetnje u razvoju uzorak istraživanja obuhvatio je: učenike sa motoričkim smetnjama ($n = 27$, $f = 18.2\%$), učenike sa senzornim smetnjama (oštećenje vida i oštećenje sluha; $n = 38$, $f = 25.7\%$), učenike sa intelektualnim smetnjama ($n = 58$, $f = 39.2\%$) i učenike sa smetnjama (poremećajima) u ponašanju ($n = 25$, $f = 16.9\%$).

Instrumenti istraživanja

Za procenu školskog angažovanja korišćena je Skala angažovanosti učenika (School Engagement Scale; Fredrickson et al., 2005). Ova skala namenjena je samoproceni angažovanja učenika u školi i sastoji se od 19 tvrdnji koje su raspoređene u tri dimenzije: bihevioralna (pet tvrdnji), emocionalna (šest tvrdnji) i kognitivna dimenzija (osam tvrdnji). Bihevioralno angažovanje uključuje učešće u školskim aktivnostima, uključivanje u akademske zadatke i zadatke učenja, pozitivno ponašanje i odsustvo ometajućeg ponašanja. Emocionalno angažovanje opisuje odnos sa nastavnicima, vršnjacima i ostalim učenicima. Kognitivno angažovanje podrazumeva učešće u školskom životu i spremnost da se prevaziđu osnovni zahtevi za savladavanje složenih veština rasuđivanja (Fredericks et al., 2005). Dimenzije pomažu u razumevanju strukture angažovanja u celini i olakšavaju istraživačima da istraže poddimenzije angažovanja, a doprinos učenika u svakoj dimenziji ima implikacije na učenika i školu. Učenici su izražavali svoje slaganje sa tvrdnjama na petostepenoj skali (od 1 – nikada do 5 – sve vreme), pri čemu veći skor označava i veći nivo angažovanja. Ukupan nivo angažovanja učenika zavisi od stepena u kome je učenik angažovan u ovim oblastima. Da bi se utvrdilo školsko angažovanje, negativno formulisane stavke (tvrdnje 2, 4 i 6) preokrenute su pre sumiranja rezultata, kako bi viši rezultati odražavali viši nivo angažovanja. Na nivou Skale angažovanosti učenika registrovana je prihvatljiva pouzdanost ($\alpha = .77$). Za prikupljanje opštih demografskih podataka kreiran je upitnik namenjen za potrebe ovog istraživanja.

Procedura istraživanja

Prikupljanje podataka sprovedeno je tokom školske 2021/2022. godine u šest beogradskih škola za obrazovanje učenika sa smetnjama u razvoju i invaliditetom i tri inkluzivne škole. Nakon što smo dobili odobrenje od direktora škola i informisanu saglasnost roditelja ili staratelja ispitanika, pristupilo se istraživanju. Učenici su samostalno ili uz podršku nastavnika popunjavali Skalu angažovanosti učenika, u vremenu do 30 minuta.

Statistička obrada podataka

Statistička obrada podataka izvršena je pomoću softverskog paketa namenjenog za društvene nauke (*Statistical Package for the Social Sciences – SPSS, Version 25.0*). Korišćena je deskriptivna statistika (frekvencije, procenti, aritmetička sredina i standardna devijacija). Kako je Šapiro–Vilkov test pokazao da ne postoji odstupanje od normalne raspodele, sprovedena je parametrijska analiza putem t-testa za nezavisne uzorke i jednofaktorska analiza varijanse uz primenu Dun–Šidakove korekcije za međugrupna poređenja.

Rezultati

Prema maksimalnim i prosečnim vrednostima, angažovanost svih učenika na sve tri dimenzije Skale angažovanosti učenika kreće se oko ocene tri (bihevioralna angažovanost: $AS = 3.53$ (1.60–5.00); emocionalna angažovanost: $AS = 3.84$ (2.00–5.00); kognitivna angažovanost: $AS = 2.9$ (1.00–5.00)). To znači da učenici više vrednuju bihevioralno i emocionalno angažovanje, a manje kognitivno. Odnosno, više su uključeni u školske aktivnosti, druženje i dobre odnose sa vršnjacima i nastavnicima, a manje u savladavanje novih veština ili usvajanje akademskih znanja, tj. u strategije učenja i samoregulaciju.

Primenom jednofaktorske analize varijanse utvrđeno je da na Skali angažovanosti učenika postoje statistički značajne razlike između učenika u odnosu na vrstu smetnje u razvoju, i to u dva domena: domen emocionalnog i domen kognitivnog angažovanja (Tabela 1).

U cilju utvrđivanja između kojih podgrupa postoje statistički značajne razlike u domenu emocionalnog i kognitivnog angažovanja, primenjena je Dun–Šidakova korekcija. Na Skali angažovanosti učenika, u domenu emocionalnog angažovanja statistički značajna razlika dobijena je između učenika sa intelektualnim smetnjama i učenika sa poremećajima u ponašanju ($p = .001$), dok je u domenu kognitivnog angažovanja statistički značajna razlika evidentirana između učenika sa motoričkim smetnjama i učenika sa poremećajima u ponašanju ($p = .007$), kao i učenika sa senzornim smetnjama i učenika sa poremećajima u ponašanju ($p = .007$).

Tabela 1

Postignuća i razlike na Skali angažovanosti učenika u odnosu na vrstu smetnje

Domen	Vrsta smetnje	n	AS	SD	F	P
SAU_bd	Motoričke smetnje	27	3.64	.451	1.180	.319
	Senzorne smetnje	38	3.60	.469		
	Intelektualne smetnje	58	3.51	.619		
	Poremećaji u ponašanju	25	3.37	.638		
	Ukupno	148	3.53	.560		
SAU_ed	Motoričke smetnje	27	3.83	.580	5.140	.002
	Senzorne smetnje	38	3.79	.517		
	Intelektualna smetnje	58	4.01	.548		
	Poremećaji u ponašanju	25	3.50	.549		
	Ukupno	148	3.84	.569		
SAU_kd	Motoričke smetnje	27	3.27	.783	4.775	.003
	Senzorne smetnje	38	3.21	.774		
	Intelektualne smetnje	58	2.95	.975		
	Poremećaji u ponašanju	25	2.47	.863		
	Ukupno	148	2.99	.908		

*SAU_bd – Skala angažovanosti učenika bihevioralni domen; SAU_ed – Skala angažovanosti učenika emocionalni domen; SAU_kd – Skala angažovanosti učenika kognitivni domen; statistički značajni rezultat je podebljan

U Tabeli 2 date su razlike između dečaka i devojčica na Skali angažovanosti učenika. Obe podgrupe ostvaruju slične rezultate i nije utvrđena statistički značajna razlika ni u jednom domenu.

Tabela 2

Postignuća i razlike na Skali angažovanosti učenika u odnosu na pol

Domeni	Pol	n	AS	SD	t	P
SAU_bd	Muški	91	3.55	.557	.609	.543
	Ženski	57	3.49	.568		
SAU_ed	Muški	91	3.87	.549	.775	.439
	Ženski	57	3.79	.600		
SAU_kd	Muški	91	2.96	.944	-.583	.560
	Ženski	57	3.05	.853		

*SAU_bd – Skala angažovanosti učenika bihevioralni domen; SAU_ed – Skala angažovanosti učenika emocionalni domen; SAU_kd – Skala angažovanosti učenika kognitivni domen

U Tabeli 3 prikazane su razlike između učenika VII i VIII razreda na Skali angažovanosti učenika. Obe podgrupe ostvaruju slične rezultate i nije utvrđena statistički značajna razlika ni u jednom domenu.

Tabela 3*Postignuća i razlike na Skali angažovanosti učenika u odnosu na razred*

Domeni	Razred	n	AS	SD	t	P
SAU_bd	VII	88	3.50	.542	-.827	.409
	VIII	60	3.58	.587		
SAU_ed	VII	88	3.88	.463	1.022	.309
	VIII	60	3.78	.696		
SAU_kd	VII	88	2.92	.869	-1.252	.213
	VIII	60	3.11	.958		

*SAU_bd – Skala angažovanosti učenika bihevioralni domen; SAU_ed – Skala angažovanosti učenika emocionalni domen; SAU_kd – Skala angažovanosti učenika kognitivni domen

T-testom za nezavisne uzorke utvrđeno je da su učenici sa smetnjama u razvoju koji pohađaju škole za obrazovanje učenika sa smetnjama u razvoju i invaliditetom i škole sa inkluzivnim obrazovanjem imali slične vrednosti na Skali angažovanosti učenika u domenu emocionalnog i bihevioralnog angažovanja. Na skali angažovanosti učenika u domenu kognitivnog angažovanja statistički značajno više skorove imali su učenici koji pohađaju škole za učenike sa smetnjama u razvoju i invaliditetom ($p < .05$) (Tabela 4).

Tabela 4*Postignuća i razlike na Skali angažovanosti učenika u odnosu na tip škole*

Domeni	Škola	n	AS	SD	t	P
SAU_bd	šousr	108	3.57	.553	1.308	.193
	iš	40	3.43	.574		
SAU_ed	šousr	108	3.88	.567	1.685	.094
	iš	40	3.71	.559		
SAU_kd	šousr	108	3.19	.831	4.720	.000
	iš	40	2.45	.893		

*SAU_bd – Skala angažovanosti učenika bihevioralni domen; SAU_ed – Skala angažovanosti učenika emocionalni domen; SAU_kd – Skala angažovanosti učenika kognitivni domen; šousr= škola za obrazovanje učenika sa smetnjama u razvoju i invaliditetom; iš – škole sa inkluzivnim obrazovanjem; statistički značajan rezultat je podebljan

Diskusija

Cilj ovog istraživanja bio je da se ispita samoprocena nivoa školske angažovanosti učenika sa smetnjama u razvoju. Rezultati istraživanja pokazali su da skoro svi učenici sa smetnjama u razvoju više vrednuju bihevioralno i emocionalno angažovanje, a manje kognitivno. Drugim rečima, ovi učenici više participiraju u školskim aktivnostima, druženju i dobrim odnosima s vršnjacima i nastavnicima, a manje su angažovani u savladavanju novih veština ili usvajanju akademskih znanja, tj. u strategije učenja i samoregulaciju.

Teoretski naši podaci su u skladu s idejom da emocionalno angažovanje dece u školama postavlja osnovu za učenje, učešće i uspeh u školskim aktivnostima (Charkhabi et al., 2019) i da emocionalno angažovani učenici osećaju pripadnost svojoj školi i privrženost ljudima u školi (Dotterer & Love, 2011). Prethodne studije navode da su emocionalni faktori najjači prediktori školskog angažovanja (Fredricks et al., 2005; Gutiérrez et al., 2016). Učenici sa smetnjama u razvoju su druga po redu populacija u riziku od akademskog neuspeha i prema podacima Ministarstva obrazovanja SAD dve trećine učenika s invaliditetom ne završava srednju školu (Aron & Loprest, 2012), te možda i ne čudi podatak da su naši ispitanici na Skali angažovanosti učenika najniže vrednovali kognitivnu komponentu.

Rezultati jedne longitudinalne studije o školskom angažovanju i akademskom postignuću pokazali su da je rano školsko angažovanje predviđalo dugoročni školski rast. Konkretno, deca koja su pokazala više bihevioralno i emocionalno angažovanje tokom osnovne škole, postigla su veći akademski napredak od dece koja su pokazala niže nivoe ovih oblika angažovanja (Ladd & Dinella, 2009). U jednoj novijoj studiji poprečnog preseka dobijeni su slični rezultati. Naime, učenici od I do IV razreda osnovne škole ocenjuju kognitivnu komponentu najnižim prosečnim ocenama, a bihevioralnu i emocionalnu najvišim. Interesantan je podatak da što su učenici stariji, srednje vrednosti na sve tri komponente opadaju (Charkhabi et al., 2019). To je potvrđeno i u drugim istraživanjima (npr. Fernández-Zabala et al., 2016; Veiga et al., 2014). Imajući u vidu da su starija deca imala niže rezultate u školskom angažovanju, evidentno je da su potrebne intervencije koje su usmerene posebno na ovu grupaciju dece. U našem uzorku nisu potvrđeni ovakvi nalazi, osim u domenu emocionalno angažovanje.

Rezultati našeg istraživanja ne podržavaju u potpunosti nalaze koje je dobila Veltenova (Velten, 2018). Autorka je na uzorku od 20 učenika četvrtog i petog razreda, koji su od specijalnog edukatora (defektolog) i školskog savetnika, a na osnovu školskog postignuća i ponašanja, prepoznati kao neangažovani učenici, utvrdila da se prosečne vrednosti bihevioralnog angažovanja kreću oko ocene 3.3, dok se emocionalno angažovanje kreće oko prosečne ocene 2.5. Podaci dobijeni kod ispitanika iz našeg uzorka pokazuju da su srednje vrednosti za domen bihevioralno angažovanje 3.5, a za domen emocionalno angažovanje 3.8. Razliku u podacima možemo tražiti u uzrastu ispitanika, u veličini uzorka, ali i samom odabiru ciljne grupe.

Rezultati našeg istraživanja pokazuju da nema razlike između dečaka i devojčica u samoproceni školskog angažovanja, što je u suprotnosti sa nalazima studije Ladd i Dajnela (Ladd & Dinella, 2009), u kojoj je utvrđeno da devojčice imaju značajno više prosečne rezultate od dečaka. Iako neke studije izveštavaju o uticaju pola na angažovanje u školi (Fernández-Zabala et al., 2016; Fredricks et al., 2005), većina studija ne izveštava o statističkim

podacima kada su u pitanju polne razlike (Dolzan et al., 2015; Mai et al., 2015; Sanyal et al., 2017; Teuscher & Makarova, 2018; Vazirabadi, 2010; Zahed et al., 2013; Yusof et al., 2016).

Podaci u literaturi pokazuju da, iako su ciljevi inkluzivnog obrazovanja plemeniti i imaju tendenciju da se bave većinom akademskih i psihosocijalnih problema osoba sa invaliditetom (McCoy et al., 2012), gluvi i nagluvi učenici se i dalje suočavaju sa visokom marginalizacijom i stigmatizacijom u školama (Asonye et al., 2018). Kao rezultat toga, većina ovih učenika razvija veoma nizak angažman u školi i visoku averziju prema školovanju. Takođe, utvrđeno je da je većina učenika sa oštećenjem sluha (stopa prevalencije od 13.6%) u riziku od napuštanja škole, na šta ukazuje njihov nizak nivo angažovanja u školi (Asogwa et al., 2020). Rezultati našeg istraživanja pokazuju da učenici sa senzornim smetnjama ostvaruju skoro pa najviše postignuće na domenu bihevioralno i kognitivno angažovanje, što se smatra ključnim za postizanje pozitivnih akademskih ishoda i sprečavanje osipanja. Istovremeno, učenici sa senzornim smetnjama ostvaruju skoro pa najniže srednje postignuće na domenu emocionalno angažovanje Skale angažovanosti učenika. Dostupni nalazi istraživanja pokazuju da su angažovani učenici uspješniji u školi, odnosno utvrđeno je da je školski angažman prediktor opšteg i ponašanja u školi (Hirschfield & Gasper, 2011). Kada su učenici emocionalno angažovani, postoji smanjen rizik od delinkventnog ponašanja, a povećanje celokupnog angažovanja učenika je način da se poveća interesovanje za školu, akademsko postignuće i stopa završetka škole.

Daljom analizom naših rezultata utvrdili smo da učenici sa smetnjama u razvoju koji pohađaju škole za obrazovanje učenika sa smetnjama u razvoju i invaliditetom i škole sa inkluzivnim obrazovanjem imaju relativno slične prosečne vrednosti na Skali angažovanosti učenika u domenu emocionalnog i bihevioralnog angažovanja, dok u domenu kognitivnog angažovanja statistički značajno više postignuće imaju učenici koji pohađaju škole za učenike sa smetnjama u razvoju i invaliditetom. Nivoi školskog angažovanja su viši u školama sa adekvatnim strukturama podrške, prilagođenim nastavnim planovima i programima, sistematičnim i jasnim individualnim obrazovnim planovima, brižnim nastavnicima, vršnjačkim prihvatanjem, doslednim ciljevima i školskom zajednicom koja neguje pripadnost (Hughes et al., 2006; Lippman & Rivers, 2008).

Angažovanje učenika u školi smatra se važnim indikatorom koji treba uzeti u obzir prilikom rešavanja pitanja i izazova u vezi sa školom, školskim okruženjem i prilagođavanjem učenika ovoj sredini. Dostupni empirijski dokazi ukazuju na stabilnost odnosa između angažovanja i privikavanja učenika školi (Dotterer & Lowe, 2011; Jang et al., 2012; Lam et al., 2012), te da veća angažovanost učenika u nastavi utiče na razvoj motivisanosti učenika za postignuće (Trumić, 2021).

Prednosti, preporuke i ograničenja ovog istraživanja mogu se posmatrati sa nekoliko aspekata. Ukoliko se uzme u obzir činjenica da su komponente školskog angažovanja do sada istraživane uglavnom odvojeno, može se reći da je ovo prvo istraživanje koje predstavlja uvid u ceo konstrukt. Ovo je i među prvim istraživanjima na našim prostorima koje je u fokusu imalo učenike sa smetnjama u razvoju i njihov nivo angažovanosti. Ujedno, nedostatak istraživanja usmerenih na učenike sa smetnjama u razvoju ograničavao nas je na komparaciju sa dostupnim istraživanjima, koja su u najvećem broju slučajeva sprovedena na učenicima tipičnog razvoja. Shodno tome, smatramo da bi neka buduća istraživanja školske angažovanosti trebalo da budu usmerena i na učenike sa smetnjama u razvoju, kako bi se ispitali i analizirali svi faktori koji doprinose promenama ovog konstrukta. Takođe, bilo bi poželjno koristiti i instrumente za objektivnu procenu angažovanosti. Kao jedno od ograničenja istraživanja može se navesti relativno mali broj ispitanika unutar podgrupa učenika sa smetnjama u razvoju, ali i regrutovanje uzorka iz škola koje se nalaze u jednom gradu. Buduća istraživanja mogu obuhvatiti veći broj ispitanika u odnosu na pojedinačnu smetnju, te učenike iz škola koje se nalaze u drugim gradovima (urbanim i ruralnim).

Zaključak

Uspeh u školi u velikoj meri zavisi od bihevioralnog, emocionalnog i kognitivnog angažovanja. Ovo istraživanje fokusiralo se na sve tri komponente. Na osnovu analize rezultata može se reći da su učenici sa smetnjama u razvoju u školskom kontekstu najviše angažovani u domenu bihevioralne i emocionalne angažovanosti, a najmanje u domenu kognitivne angažovanosti. Učenici muškog pola su više samoangažovani u bihevioralnom i emocionalnom domenu, a devojčice u kognitivnom. Nivo angažovanosti u odnosu na razred raste sa uzrastom, osim na emocionalnom domenu, dok je nivo angažovanosti na sva tri domena viši kod učenika koji pohađaju škole za obrazovanje učenika sa smetnjama u razvoju i invaliditetom u odnosu na učenike iz inkluzivnih škola. Ovakvi rezultati mogu biti osnova za buduća istraživanja, ali i za kreiranje programa podsticanja angažovanosti naših učenika.

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Self-assessment of the engagement of students with disabilities in the school context

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Introduction. Student engagement in school represents the degree to which students are invested, motivated, and willing to participate in curricular and extracurricular activities at their school, which greatly influences their future academic and professional success. **Objective.** The aim of our research was to examine the self-assessment of the engagement of students with developmental disabilities in the school context. **Methods.** The research sample consisted of 148 students with developmental disabilities, of both genders (61.5% boys), with an average age of 13.9 years, attending inclusive and elementary schools for the education of students with developmental disabilities. The School Engagement Scale was used to determine engagement. **Results.** The main results showed that in the majority of students with developmental disabilities, behavioral and emotional engagement was at a higher level than cognitive engagement and that the level of engagement in the behavioral and cognitive components increased with age. At the same time, students who attended schools for students with developmental disabilities had statistically significantly higher scores on the cognitive engagement domain. **Conclusion.** Behavioral, emotional, and cognitive engagement is perceived as a potentially effective response to problems that occur in students with developmental disabilities and should be considered when preventing problematic patterns that may arise in the school context.

Keywords: student engagement, students with disabilities, academic achievement, school environment

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Formal and informal support for Croatian and Serbian people with disabilities and their families: A scoping review

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Introduction. Formal and informal support are important for quality of life of people with disabilities and their families. **Objective.** The aim of this paper was to (a) identify types of and satisfaction with support for Croatian and Serbian people with disabilities (PWD) and their caregivers and (b) summarise the effects of support reported by PWD and/or their caregivers in Croatia and Serbia. **Methods.** A systematic search was conducted, followed by eligibility screening of the peer-reviewed articles published from 2000 to June 2020. EBSCOhost, Hrčak, and the Serbian Citation Index [Srpski Citatni Indeks] databases were searched. We also searched the grey literature using Google Scholar and employed backward reference searching. The authors scanned articles and extracted the data related to the country, study's aim, study's design, sample, methodology, and findings. Twenty-seven studies were included in this review. **Results.** Croatian and Serbian PWD and their caregivers received informational, emotional, practical, and financial support at different degrees. They were most satisfied with informal support, while the degree of satisfaction with formal support varied. They highly valued support programs. **Conclusion.** Croatia and Serbia, in general, lack a formal support system, and informal support is the most prevalent for PWD and their caregivers. There is a need for more support programs for families of PWD.

Keywords: children with developmental disabilities, people with disabilities, caregivers of individuals with disabilities, formal support, informal support

Introduction

Social support for people with disabilities (PWD) and their families positively affects their well-being (Bishop-Fitzpatrick et al., 2018; Ekas et al., 2010), increases opportunities for fulfilling social roles, independent living, and inclusion (Leutar et al., 2020), and serves as a buffer for stress and depression (Ekas et al., 2010; Faw, 2018). Further, support for individuals with disabilities and their family members increases opportunities for fulfilling social roles, independent living, and community inclusion (Leutar & Buljevac, 2020).

In the literature, two types of social support are commonly identified: formal and informal support (Garcia et al., 2008). Formal support refers to support provided by professionals, institutions, and non-governmental organizations (NGOs) (Duvdevany & Abboud, 2003) and refers to provision of information, exercise of rights, and engagement in services and programs (Leutar et al., 2020). Informal support is provided by family members, friends, relatives, or neighbours (Leutar et al., 2007). Within these two types of support, the most common supports are informational, practical (i.e., instrumental), emotional, and financial (Keller & Honig, 2004). Informational support means that a person receives necessary information, such as information about a diagnosis, characteristics of disability, available services, rights, available resources in communities, etc. (Tétreault et al., 2014; Vanegas & Abdelrahim, 2016). Practical support refers to pragmatic advice or guidance that helps a person to do or achieve something, as well as practical aid or assistance (King et al., 2006, pp. 911). Emotional support aims to reduce social tensions, sustain family harmony, and promote a better adaptation to the child's condition (Tétreault et al., 2014). Financial support is manifested through monetary contributions, mostly from a government (Gibson & Mykitiuk, 2012).

Findings related to satisfaction with formal support (e.g., support in educational settings, support from the service providers) are not unequivocal, although many PWD and their families expressed dissatisfaction (Anderson et al., 2020; James et al., 2013; Finn & Boland, 2021; Renty & Roeyers, 2005). Many research studies showed that satisfaction with formal support varies, depending on who was providing support, what type of support was given, etc. (James et al., 2013; Renty & Roeyers, 2005). When it comes to satisfaction with informal support, previous research showed that PWD and their families were the most satisfied with the support from family members, and PWD were also satisfied with support from their friends, who are very often people with the same type of disability (Burns, 2009; Davis & Gavidia-Payne, 2009; Lippold & Guinea, 2001; Lysaght et al., 2012).

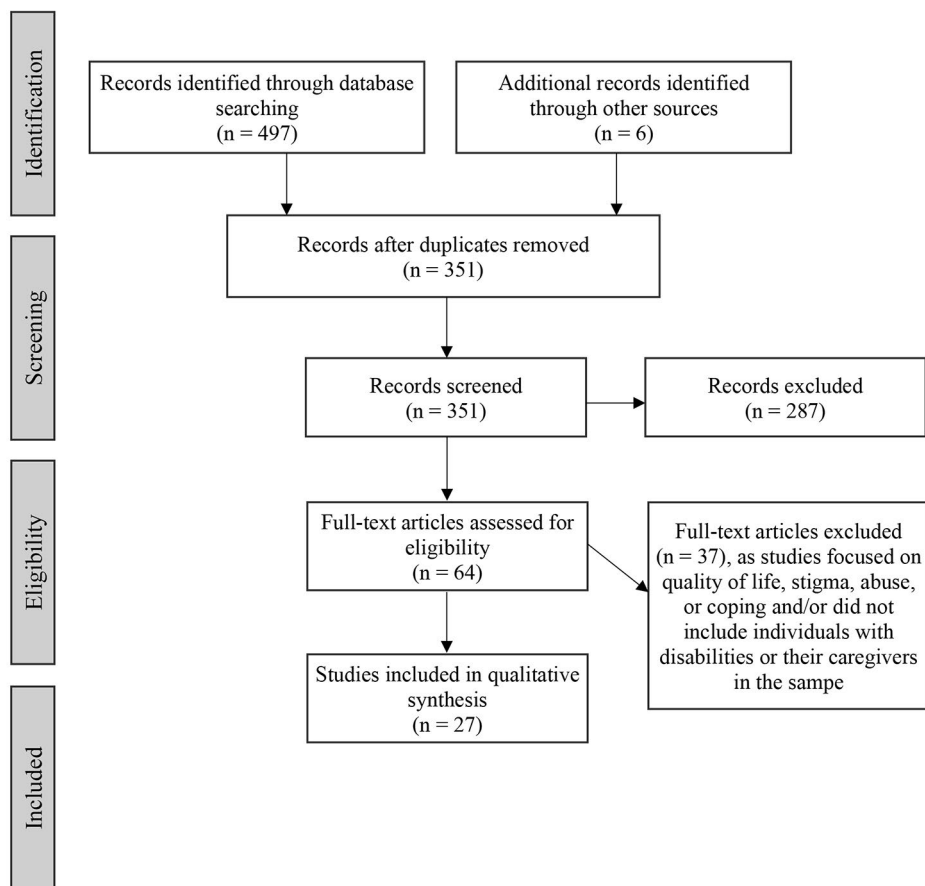
The State of Support in Croatia and Serbia

Croatia and Serbia are countries in Southeast Europe with populations of approximately four and seven million people, respectively. Croatia and Serbia were part of the civil war during the early 1990s, which significantly affected the quality of life of their citizens. For the past two decades, both countries have made efforts to adopt laws that should improve the quality of life of families of PWD, such as the 2006 United Nations Convention on the Rights of Persons with Disabilities, the Law on Social Protection, etc. As Croatia is a European Union member, some laws and strategies from the European Union have also become part of the Croatian national legal system. Although the laws were adopted, they have been rarely enforced in practice (Čolić & Kaljača, 2014; Marković, 2014; Mikuš, 2018). Various support programs are often provided by NGOs whose funds come from different governmental and non-governmental grants, and they mainly terminate when the grant ends. As systematic formal support is lacking in the majority of areas, people often need to make tremendous effort to receive it. Without adequate support, it is not surprising that some Croatian and Serbian families of PWD experienced stigma, discrimination, and social exclusion (Buljevac et al., 2020; Čolić & Milačić Vidojević, 2021).

Given the current state of support in these countries, we were interested in exploring what types of support are available to families of PWD and their satisfaction with support. Rather than evaluating laws and strategies, we analysed their lived experiences. The purpose of this review was to (a) summarise the types of and satisfaction with support reported by PWD and/or their caregivers in Croatia and Serbia and (b) summarise the effects of support reported by PWD and/or their caregivers in Croatia and Serbia. Our research questions were (a) What types of support are available to Croatian and Serbian PWD and their families? (b) To what degree are Croatian and Serbian PWD and their families satisfied with support? and (c) What are the perceived effects of support on the life of PWD and their families?

Methods

We performed a scoping review by applying the guidelines of Arksey and O'Malley (2005), such as explicit search criteria, inclusion/exclusion criteria, and a review of the studies conducted by two independent reviewers. Furthermore, we used PRISMA guidelines (see Figure 1) for reporting search strategy and identification of the studies (Moher et al., 2009).

Figure 1.*Flowchart of articles identification*

Search Strategy

First, we completed electronic searches of the EBSCOhost, Hrčak, and Serbian Citation Index [Srpski Citatni Indeks] databases to identify peer-reviewed articles. Hrčak is Croatian and the Serbian Citation Index [Srpski Citatni Indeks] is a Serbian bibliographic database. We also searched the grey literature using Google Scholar and employed backward reference searching. The search was limited to the peer-reviewed articles published from 2000 to January 2020. We used the term support as a key search term in combination with the following terms: Croatia, Serbia, autism, disability, intellectual disability, deaf or hard of hearing, blind or visual impairment, and physical disability. We performed a broad search, as we wanted to be inclusive and to hear the voices of all PWD and their caregivers in Croatia and Serbia. Second, once we located

studies, we reviewed titles and abstracts manually to assess their inclusion eligibility. Finally, we read the articles identified for inclusion after abstract review in full and included the ones that met inclusion criteria as described in the next section in a final list.

Inclusion and Exclusion Criteria

An article was included if the following criteria were met: the article (a) was published in Croatian, Serbian, or English, (b) explored support reported by PWD and/or caregivers of PWD, (c) included PWD of any age and/or caregivers of PWD, and (d) was empirical, peer-reviewed research. We excluded the studies about support from other sources (e.g., governmental reports, opinions of different professionals) and studies whose focus was other than support, such as quality of life, stigma, etc.

Data Extraction

A Microsoft Excel© database was created to extract theoretically and/or methodologically relevant data. Both authors scanned the articles and extracted the data related to the country, study's aim, study's design, sample, methodology employed, and main findings. Both authors agreed with the studies' characteristics that were extracted. We then summarised the findings and reported them via thematic analysis (Thomas & Harden, 2008).

Results

Identified Studies

We included 27 studies in the final review out of 351 identified (see Figure 1). Following the screening of the 351 articles by the title and abstract, we read 64 full-text articles and checked them for eligibility. We excluded 37 papers as they did not fit the inclusion criteria. In Table 1, we presented data from the 27 studies regarding the sample, the instruments, and the focus of the studies relevant to the support reported by families of PWD. These studies are not homogenous regarding study topic and/or methodology. For example, some studies interviewed both professionals and PWD and/or caregivers (e.g., Leutar & Marković, 2011). Some presented data not only related to support but different subjects as well, such as stigma (e.g., Buljevac et al., 2012), experience with certain programs (McConkey et al., 2013), performance and skills (e.g., Štambuk et al., 2012), and satisfaction with life (e.g., Blažeka Kokorić et al., 2012). Due to the small number of studies that explored only support, we decided to include each study that examined support at any degree, even if that was not the main aim. Therefore, in the paper, we focused solely on methodology and findings related to support reported by PWD and/or their caregivers.

Table 1*Summary of study characteristics, instruments, and aims related to support*

Authors, (country)	Sample	Parent or PWD ages –Years (range and /or mean)	Child ages – Years (range and /or mean)	Instrument related to a support	Focus of the study related to support
Avramović & Žegarac (2016) (Serbia)	20 children with disabilities	7-17	N/A	Semi-structured interview “Me at the Centre”	To gain insight into the experiences of children with disabilities and their perception of the community services
Blažeka Kokorić et al. (2012) (Croatia)	391 PWD	18+	N/A	Types of formal and informal sources of social support in everyday life	Types of formal and informal support among PWD
Buljevac et al. (2012) (Croatia)	5 PWD	22 – 48	N/A	Focus groups	To gain insight into the experiences of PWD with support
Buljevac & Leutar (2017) (Croatia)	22 caregivers of individuals with intellectual disabilities	24-86 (M = 56.63)	M = 34.09	Semi-structured interview	To gain insight into experiences of family members of people with intellectual disabilities
Čagalj et al. (2018) (Croatia)	5 mothers of children with PWS	20–63 (M = 44)	6-35	Semi-structured interview	To gain insight into experiences of mothers of children with PWS with the formal support system
Daniels et al. (2017) (Croatia ^a)	146 caregivers of children with ASD	Not stated	M = 6.1	The Caregiver Needs Survey	Caregiver needs and what their perception is about ASD services in community
Ignjatovic Dzamonja et al. (2017) (Serbia)	153 caregivers of children with disabilities	20 - 66 (mothers M = 38.3, fathers M = 41.4)	3 – 42 (M = 14.56)	The Family Quality of Life Scale	What the effect of community-based services is on family quality of life

Golubović et al. (2015) (Serbia)	100 parents of children with disabilities	Not stated	3 - 7	The questionnaire regarding the first symptoms, treatment, professionals, and usefulness of information provided by professionals	Caregivers' perception of informational support from different professionals
Jelić & Mihajlović Babić (2018) (Serbia)	26 PWD	19-81 (M = 45.5)	N/A	Questionnaire regarding welfare services provided by civil society organizations on the territory of the City of Kraljevo; Questionnaire regarding users' satisfaction with welfare provided by non - governmental organizations/ associations in the city of Kraljevo	To explore how PWD evaluate quality of social services/welfare and their satisfaction with services
Karačić (2012) (Croatia)	150 adolescents with physical impairments	N/A	15-21	Questionnaire about support	To gain insight into frequencies, types and sources of support
Krsmanović et al. (2017) (Serbia)	281 caregivers of children with ASD	Not stated	M = 10	SEAN questionnaire	To explore the availability of educational support and social protection services for families of children with ASD
Leutar et al. (2007) (Croatia)	480 persons with disability	18-83	N/A	Formal and informal support questionnaire	Types of social support through formal and informal sources
Leutar & Marković (2011) (Croatia)	10 PWD, 10 parents of PWD	DD: 23 - 67; Parents: 37 - 60	N/A	Semi-structured interview	To provide insight into social work with PWD and support from the social workers
Levačić & Leutar (2011) (Croatia)	8 persons with physical disabilities	34-56 (M = 46)	N/A	Semi-structured interview	Types and sources of support for persons with physical disabilities in their parenting role and their needs

Leutar & Oršulić (2015) (Croatia)	161 parents of children with disabilities	27-59 (M = 41.74)	1-18, (M=10.8)	Family Impact Questionnaire; Social support questionnaire	To gain insight into social support from parents of children with disabilities
Lisak et al. (2017) (Croatia)	6 parents of children with intellectual disabilities or ASD	38-55	3-19 years	Structured interview using narrative approach	Caregivers' experiences with support in educational system
McConkey et al. (2013) (Serbia) ⁹	5 individuals with intellectual disabilities, 5 parents of PWD	Not stated	Not stated	Individual and group interviews	Young athletes' and their caregivers' perception of social inclusion through the sport programs
Mihic et al. (2016) (Serbia)	8 mothers of children with disabilities	Not stated	Preschool age (not specified)	Qualitative interview during focus groups	To examine effect of support program on (a) family well-being, (b) caregivers' relationship with their child, (c) acceptance of diagnosis
Milic Babic & Dowling (2015) (Croatia)	9 students with disabilities	20-30	N/A	Semi-structured interview	Types of support available to the students with disabilities and what barriers they face
Milic Babic et al. (2017) (Croatia)	3 mothers of children with Williams syndrome	35-42 (M=38)	5-8	Semi-structured interview	To examine experiences with formal and informal support parents receive
Milic Babic et al. (2018) (Croatia)	28 women with disabilities	20-63 (M = 39)	N/A	Semi-structured interview	To obtain insight into the personal experiences of women with disabilities and their perceptions of abuse
Pejovic Milovancevic et al. (2018) (Serbia)	231 parents of children with ASD	Not stated	M = 10.5	The Caregiver Needs Survey	Caregiver' perception of and satisfaction with different ASD support systems in community

Petrović et al. (2016) (Serbia)	23 people with intellectual disabilities	Up to 30 years - 39%, older than 30 years - 61%	N/A	Competency scale for people with ID; Eco-map; Self-esteem scale SPROSIT S; Questionnaire for self-determination; Choice-making and decision-making questionnaire; Level of problem-solving skills questionnaire	To examine effects of community-based supported housing on life of people with intellectual disability who were previously institutionalized
Štambuk et al. (2012) (Croatia)	114 PWD	65-91 (M = 74.34)	N/A	Satisfaction with sources of support in everyday life; Support in crisis situations	Types of support in everyday life and in crisis situations among PWD
Stančić et al. (2015) (Croatia)	870 students with disabilities, 90 parents	Not stated	Students were in high school	Questionnaire on students' satisfaction with the support system in secondary education; Questionnaire on satisfaction of parents of the students with disabilities	Level of support and satisfaction with the support system in high school among students and their caregivers
Stanimirović et al. (2012) (Serbia)	32 persons with visual impairments, 64 parents	Not stated	14-26	Semi-structured interview; Perceived support scale	Level of support and satisfaction with the school support system students and their caregivers
Žganec et al. (2012) (Croatia)	391 PWD	Not stated	N/A	Questionnaire for PWD in the area of social rights	Perception of PWD regarding accessibility of social rights and the level of their needs

^a These studies were conducted in several countries, but we presented data only related to Croatia and Serbia.

Overview of the Studies

In total, 17 studies were conducted in Croatia and 10 studies in Serbia. Out of these studies, 12 studies included PWD in their design, 11 involved caregivers of PWD, while four encompassed both PWD and their caregivers (Table 1). Over half of the studies recruited participants from the urban areas (i.e., larger cities), seven recruited sample from both urban and rural areas (Blažeka Kokorić et al., 2021; Buljevac et al., 2012; Čagalj et al., 2018; Leutar & Marković, 2011; Lisak et al., 2017; Milic & Babić Dowling, 2015; Žganec et al., 2012), one was conducted in urban, rural, and suburban area (Ignjatovic-Dzamonja et al., 2017), and one was conducted in rural area (Mihic et al., 2016). Two studies (Daniels et al., 2017; McConkey et al., 2013) were carried out across multiple countries, but we presented results related to Croatia and Serbia only.

Sample Characteristics

The total sample size of PWD varied from five to 870, while the number of caregivers ranged from five to 281. The age range of PWD was from seven to 91 years, while the age range of caregivers was from 20 to 86 years (Table 1). The majority of the studies did not report specific types of disabilities, or their sample consisted of people with multiple disabilities or caregivers of individuals with multiple disabilities. Three studies focused on intellectual disabilities (Buljevac & Leutar, 2017; McConkey et al., 2013; Petrović et al., 2016), one included mothers of children with Prader–Willi syndrome (PWS) (Čagalj et al., 2018), one mothers of children with Williams syndrome (Milić Babić et al., 2017), three focused on autism spectrum disorder (ASD) (Daniels et al., 2017; Krsmanović et al., 2017; Pejovic Milovancevic et al., 2018), one included persons with visual impairments (Stanimirović et al., 2012), and two studies focused on physical disabilities (Karačić, 2012; Levačić & Leutar, 2011).

Types of Support Reported by Caregivers

Our review showed that Croatian and Serbian caregivers of PWD received informational, emotional, practical, and financial support at different degrees. Informational support was depicted through information about rights, characteristics of disability, children's health needs, and available formal support (Čagalj et al., 2018; Daniels et al., 2017; Golubović et al., 2015; Krsmanović et al., 2017; Milić Babić et al., 2017; Stanimirović et al., 2012). The main sources of information were other caregivers of PWD, internet, and NGOs, followed by psychologists and teachers, while primary care physicians and social workers were mentioned less (Čagalj et al., 2018; Daniels et al., 2017; Golubović et al., 2015; Krsmanović et al., 2017; Lisak et al., 2017; Milić Babić et al., 2017; Pejovic Milovancevic et al., 2018).

Emotional and practical support were gained from other caregivers of PWD, some professionals, family members, and NGOs (Čagalj et al., 2018; Daniels et al., 2017; Leutar & Oršulić, 2015; Lisak et al., 2017; McConkey et al., 2013; Mihić et al., 2016; Stanimirović et al., 2012). Some examples of practical support were grandparents helping caregivers in everyday life activities, teachers providing individualised support to children, and professionals showing caregivers how to manage their child's needs (Čagalj et al., 2018; Lisak et al., 2017; Stanimirović et al., 2012).

Financial support was obtained by exercising the rights defined by legislation (Čagalj et al., 2018). In two studies, around 70% of caregivers received special government assistance for their child with ASD (Daniels et al., 2017; Pejovic Milovancevic et al., 2018), while some parents of children with different developmental disabilities (DD) received financial support from family (Leutar & Oršulić, 2015; Lisak et al., 2017).

A large majority of caregivers reported scarceness of systematic support, such as professionals' lack of knowledge about the characteristics and needs of PWD, lack of empathy, lack of coordination between professionals, and lack of assessments and services (Buljevac & Leutar, 2017; Čagalj et al., 2018; Lisak et al., 2017). They did not obtain services for their child because services were not available in their area, they were on a waiting list, or costs were high (Daniels et al., 2017; Pejovic Milovancevic et al., 2018). Obtaining a diagnosis was a common challenge for families as there were not enough qualified physicians in their hometowns, so they had to travel to larger cities or even abroad (Čagalj et al., 2018; Daniels et al., 2017; Krsmanović et al., 2017; Lisak et al., 2017; Pejovic Milovancevic et al., 2018). The majority of the families reported various challenges with the school system as well (Čagalj et al., 2018; Daniels et al., 2017; Lisak et al., 2017; Pejovic Milovancevic et al., 2018).

Types of Support Reported by PWD

Informational support included mostly information about rights (Leutar & Marković, 2011; Milić Babić et al., 2018; Žganec et al., 2012) and it was provided by NGOs and media, and less from physicians and social workers (Leutar et al., 2007). Youth with disabilities received informational support mainly from their parents and friends (47%), followed by siblings and relatives, while teachers were mentioned rarely (Karačić, 2012).

The results regarding financial support show that adults obtained some financial assistance from the government, such as care allowance or personal disability allowance (Leutar et al., 2007; Leutar & Marković, 2011; Milić Babić & Dowling, 2015; Žganec et al., 2012), while youth with disabilities received it from their parents (Karačić, 2012).

Service providers provided practical support during therapies (Daniels et al., 2017; Krsmanović et al., 2017; Pejovic Milovancevic et al., 2018), education

(Lisak et al., 2017; Pejovic Milovancevic et al., 2018; Stančić et al., 2015), and different social services (Avramović & Žegarac, 2016; Jelić & Mihajlović-Babić, 2018; Karačić, 2012; Leutar & Marković, 2011; Milic Babic & Dowling, 2015; Žganec et al., 2012). The most common therapies provided to children with ASD were standard developmental non-pharmacological treatments (Daniels et al., 2017; Krsmanović et al., 2017; Pejovic Milovancevic et al., 2018). Children with DD attended special schools most frequently, followed by inclusive classrooms and special classrooms in mainstream schools (Krsmanović et al., 2017; Pejovic Milovancevic et al., 2018). Through community-based services, children with DD acquired skills needed for leisure activities and activities of daily living, as well as for socialisation and community inclusion (Avramović & Žegarac, 2016). PWD reported day habilitation services and personal assistance (Jelić & Mihajlović-Babić, 2018; Žganec et al., 2012), while home assistance was less frequent (Leutar et al., 2007; Žganec et al., 2012).

Emotional support was provided to a small sample of adults through socio educational activities and counselling (Jelić & Mihajlović-Babić, 2018; Milić Babić & Dowling, 2015; Žganec et al., 2012). For youth with disabilities, the main sources of emotional support were their parents and friends (Karačić, 2012), while in another study, teachers were mentioned as a source of emotional support (Stanimirović et al., 2012).

The lack of available support for PWD was commonly stated in the reviewed studies. According to Leutar et al. (2007), 42.6% of participants did not get any kind of support because they did not have information about available support. Furthermore, some social workers did not provide assistance, did not have time for PWD, or they lacked empathy (Leutar & Marković, 2011). PWD often had to follow professionals' decisions without being able to ask for more information or participate in the decision-making process (Buljevac et al., 2012). Scarcity of support was also evident in educational settings, especially for children with ASD (Lisak et al., 2017; Krsmanović et al., 2017; Pejovic Milovancevic et al., 2018), while college students with disabilities did not get adequate professional and financial support (Milic Babic & Dowling, 2015).

Effects of Support

Several studies about the effect of support showed positive changes in the lives of PWD and their families. Through support, caregivers were able to gain insights into their parental role, learn coping strategies, define what kind of support their children need, build their confidence, and learn more about children's needs and strengths and how to provide care (Čagalj et al., 2018; Golubović et al., 2015; Mihić et al., 2016; Pejovic Milovancevic et al., 2018; Stanimirović et al., 2012). Their well-being was improved as their children received community-based support (Ignjatovic-Dzamonja et al., 2017). Children with DD became more skilled, educated, and independent by learning different

self-help skills, basic literacy, and social skills (Avramović & Žegarac, 2016; McConkey et al., 2013). PWD became more independent, developed new skills, improved self-esteem and community inclusion (Jelić & Mihajlović-Babić, 2018; Petrović et al., 2016).

Satisfaction with Support

Caregivers were the most satisfied with informal support (Leutar & Oršulić, 2015; Milić Babić et al., 2017) and support given through different projects (Jelić & Mihajlović-Babić, 2018; McConkey et al., 2013; Mihić et al., 2016). Different levels of satisfaction with formal support ranged from dissatisfaction and negative experiences to positive experiences (Buljevac & Leutar, 2017; Čagalj et al., 2018; Daniels et al., 2017; Leutar & Marković, 2011; Leutar & Oršulić, 2015; Lisak et al., 2017; Milić Babić et al., 2017; Pejovic Milovancevic et al., 2018; Stančić et al., 2015). Some factors that contributed to satisfaction with support were good cooperation among professionals and caregivers (Lisak et al., 2017), respect, empathy, and commitment (Čagalj et al., 2018; Leutar & Marković, 2011; Milić Babić et al., 2017).

PWD were satisfied with the support from their partners, children, and/or caregivers, and less satisfied with support from friends, neighbours, and relatives (Blažeka Kokorić et al., 2021; Milic Babic & Dowling, 2015; Stančić et al., 2015). Although satisfaction with formal support varied, PWD were dissatisfied with governmental support (Blažeka Kokorić et al., 2021; Buljevac et al., 2012; Milic Babic et al., 2018; Štambuk et al., 2012). PWD were most satisfied with personal assistance support (Jelić & Mihajlović-Babić, 2018), followed by support from health professionals, teachers, and social workers (Blažeka Kokorić et al., 2021).

Children with DD were highly satisfied with extracurricular activities, such as participation in team sports with peers without disabilities and community-based centres where they could meet other peers and develop different skills (Avramović & Žegarac, 2016; McConkey et al., 2013). Students with disabilities in secondary education reported moderate satisfaction with support systems (Stanić et al., 2015; Stanimirović et al., 2012). College students were mainly satisfied with the teaching staff as they did not treat them differently. However, they were dissatisfied with financial support from the state and the coordination between the formal system providers (Milic Babic & Dowling, 2015).

Discussion

Overall, the findings show that PWD and their caregivers were most satisfied with informal support and least satisfied with support from the government, while the degree of satisfaction with support from professionals varied.

Types of Support Reported by Caregivers

Caregivers received informational, emotional, practical, and financial support in Croatia and Serbia at different degrees. Studies from other countries (Magaña et al., 2017) also highlighted that other caregivers of PWD and the internet were the most common sources of informational support. Support from other caregivers is an important type of psychoeducational and emotional support (Magaña et al., 2017). Since around 77% of the Croatian and Serbian population have access to the internet (World Bank 2020 a, b), it is not surprising that parents found the internet to be the main source of information. Although, in the last decades, the internet has become one of the most important sources of informational support (Gibson et al., 2017), the question arises of how well parents can identify the most relevant information on the internet about their child's disability, available support, and whether there is reliable information available in Croatian and/or Serbian language. For example, some parents in the U.S. were ambivalent regarding the internet as a source of information because it can have too much information and it is hard to select the right one (Gibson et al., 2017).

The findings that caregivers reported professionals as a source of informational support less often than the internet are in line with results from studies conducted in Western countries (Mackintosh et al., 2005) and highlight the lack of systematic support. One of the main problems with formal support in Croatia and Serbia is that the majority of professionals work in larger cities, so not all families receive the support they need. The lack of systematic informational support leaves caregivers to search for information using their own resources, which can be overwhelming. Moreover, deferring information when a diagnosis is given can lead to delayed treatment.

Caregivers received emotional support from family members, other caregivers of PWD, NGOs, and some professionals. In earlier studies, family members were the most important sources of emotional support for caregivers (Bruns & Foerster, 2011). The result of family members as a source of emotional support is expected because Croatian and Serbian societies are mainly collectivist. In addition, Croatian and Serbian caregivers very often limit their interactions because of the existing family stigma in society (Buljevac & Leutar, 2017; Čolić & Milačić Vidojević, 2021), which could also be one of the explanations for why family members stay connected.

Practical support for caregivers was provided by other caregivers of PWD, family members (especially grandparents), NGOs, and some professionals. Family members are an important source of practical support in Croatian and Serbian society because three-generation family households are very common. Studies in other countries also showed that grandparents and older siblings are the main sources of this support (Baumann et al., 2005; Mackintosh et al., 2005). Caregivers did not report having access to respite care in any of the

reviewed studies, which is to some extent in agreement with a study from the United Kingdom that showed a small number of parents obtained respite care (White & Hastings, 2004). There is a lack of programs for children with DD that could provide respite time for Croatian and Serbian caregivers because the majority of programs are during the parents' work hours.

Furthermore, caregivers received practical support from different NGOs who provided various support programs through funding from governmental or international agencies. The findings related to practical support from professionals are mixed, but the majority of caregivers felt that systematic support was lacking, compared to the other countries where practical support was provided to a much greater degree by different professionals (Vanegas & Abdelrahim, 2016; White & Hastings, 2004). In Croatia and Serbia, it is common that support is provided for families with higher socioeconomic status as most treatments are paid out of pocket, and usually, more educated caregivers have better access to resources. This review points to the dearth of support in smaller cities and rural areas because most formal support sources are in capitals or in larger cities.

Although the literature identified different types of governmental support, such as welfare programs or professionally provided services (Turnbull et al., 2007), the most significant governmental support that Croatian and Serbian caregivers reported was a financial one. In Croatia, for example, many children with severe disabilities receive personal disability allowance and child allowance, while many parents of children with severe disabilities receive monthly payments for taking care of their child. Financial support is important because raising a child with disability results in greater life expenses (Burton & Phipps, 2009) and many parents must reduce their working hours or even decline job offers (Parish & Cloud, 2006).

Support for PWD

Our review showed that PWD obtained informational, emotional, practical, and financial support at different degrees. PWD were given little informational support from professionals. The majority of individuals, especially the older ones, did not know how to access different services, obtain various aids, or exert their rights. They learned most about their rights from the media and NGOs. Without adequate informational support, PWD would have limited access to the needed assistance that could affect their quality of life (Potvin et al., 2016; van Asselt-Goverts et al., 2015a).

When we analysed the results regarding emotional support, youth with disabilities received support from their parents and friends, while professionals provided emotional support to a small number of adults that was valued positively. Inadequate or lack of emotional support to PWD is also a common finding in other countries (Havercamp & Scott, 2015; Rimmer et al., 2004).

Practical support was provided by some service providers during therapies, in educational settings, through support programs, and different social services. Earlier studies also highlighted that PWD need specialised support from professionals (Potvin et al., 2016; Vanegas & Abdelrahim, 2016). Although some studies showed that friends were the most significant source of practical support for PWD (e.g., Lippold & Burns, 2009) our analysis did not yield the same findings.

The results about financial support are similar to the findings from studies in other countries that indicate governmental financial support for PWD is very often insufficient (Angela, 2015). There are barriers for Serbian PWD to apply for governmental support. For example, they need to submit a huge amount of documentation, the small monetary amount they would receive discourages application, and the application process is lengthy (Dinkić et al., 2008). In Croatia, the personal disability allowance is 200 Euros per month. All of this implies that sometimes the Croatian and Serbian families of PWD struggle financially.

Effects of and Satisfaction with Support

In general, Croatian and Serbian PWD and their families reported positive changes because of support. In line with the results from other countries (Magaña et al., 2017; Tétreault et al., 2014), parents shared that information provided by professionals was extremely valuable. Parental well-being was improved as their children received community-based support and mothers were able to understand their child and family relationship better.

Our analysis regarding the effects of support programs provided to PWD showed that they become more skilled and independent. Various support programs contributed to their personal growth, better quality of life, and better community inclusion, which is also found in some earlier studies (Chou et al., 2011; Howarth et al., 2016).

The results regarding satisfaction with support from the professionals are mixed; some caregivers were satisfied with support in general, while some of them were dissatisfied. Some factors that contributed to better satisfaction highlighted by caregivers were good cooperation, understanding, and commitment. Caregivers were satisfied with support from family members, which was also found in studies in other countries (Davis & Gavidia-Payne, 2009). Friends were not mentioned as a source of parental support in any of the reviewed studies. One possible explanation is that parents very often limit their social networks or become socially isolated due to existing stigma.

When it comes to satisfaction with support, PWD were highly satisfied with the support from family members and less satisfied with support from friends, neighbours, and relatives. Similarly, earlier studies showed that PWD were the most satisfied with family support and support from friends who are

very often people with the same type of disability (Lippold & Burns, 2009; van Asselt-Goverts et al., 2015b). PWD were highly satisfied with the support gained through various projects, such as sports programs, community-based participation, etc. The majority of them believed that professionals did not support them enough, and they were mostly dissatisfied with support from the government and local authority.

Limitations

Although this review has made a contribution to the literature pertaining support for PWD and their families, it has limitations. First, we included only peer-reviewed articles and thus, relevant grey literature may have been missed. Second, we reviewed only the articles indexed in three databases. For instance, in both Croatia and Serbia, it is common for researchers to present papers at the conference, but full data are later published in local peer-reviewed journals which are often not indexed in databases. Lastly, certain experiences with support could be related only to a specific disability and do not necessarily imply that the state of support is the same for individuals with other disabilities and their families.

Conclusion

Our review showed that PWD and their caregivers received informational, emotional, practical, and financial support at different degrees. Croatian and Serbian families of PWD were most satisfied with informal support from close family members and least satisfied with formal support. In Croatia and Serbia, informal support sources are extremely important because sometimes they are the only available ones. On the other hand, this review showed that formal systematic support is lacking and that, very often, positive experiences with professionals depended heavily on personal and ethical values of a given professional. However, when PWD and their caregivers were part of different support programs, they were highly satisfied with them. Therefore, it is important to develop support programs that more individuals would be part of, not only in larger cities but in rural areas as well. As this review pointed out, it is important to recognize the areas in which support is missing and work toward building support for PWD and their families in Croatia and Serbia.

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Formalna i neformalna podrška osobama sa invaliditetom i njihovim porodicama u Hrvatskoj i Srbiji: Pregled literature

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Uvod: Formalna i neformalna podrška važne su za kvalitet života osoba sa invaliditetom i njihovih porodica. *Cilj:* Ciljevi ovog rada bili su da se (a) identifikuju vrste podrške koju dobijaju osobe sa invaliditetom i njihove porodice, kao i zadovoljstvo podrškom i (b) analiziraju percipirani efekti podrške koju su dobile osobe sa invaliditetom i njihove porodice u Hrvatskoj i Srbiji. *Metod:* Sprovedena je sistematska pretraga literature objavljene od 2000. do juna 2020. godine, koja je potom praćena proverom podobnosti članaka. Pregledane su EBSCOhost, Hrčak i Srpski Citatni Indeks data baze. Takođe, pretražena je Google Scholar data baza i skenirane su reference iz članaka uključenih u sistematsku pretragu. Autori su skenirali članke i zabeležili podatke koji se odnose na zemlju, cilj studije, dizajn studije, uzorak, metodologiju i rezultate. U ovaj pregled uključeno je dvadeset sedam studija. *Rezultati:* Osobe sa invaliditetom iz Hrvatske i Srbije i njihovi staratelji dobili su informativnu, emocionalnu, praktičnu i finansijsku podršku u različitom stepenu. Najzadovoljniji su bili neformalnom podrškom i programima podrške, dok je stepen zadovoljstva formalnom podrškom bio različit. *Zaključak:* Formalni sistem podrške za osobe sa invaliditetom i njihove porodice generalno nedostaje u Hrvatskoj i Srbiji, dok je neformalna podrška najzastupljenija. Postoji potreba za više programa podrške osoba sa invaliditetom i njihovih porodica.

Ključne reči: deca sa razvojnim poteškoćama, osobe sa ometenošću, staratelji osoba sa ometenošću, formalna podrška, neformalna podrška

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Značaj kooperativnog učenja za gluve i nagluve učenike u neformalnim obrazovnim kontekstima

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Uvod: Primenom modela kooperativnog učenja u neformalnim obrazovnim kontekstima interakcije među učenicima se unapređuju u okviru prostora koji omogućavaju da se odvijaju slobodnije i dinamičnije. U takvim uslovima socijalizacija učenika postaje uspešnija, ali podstiču se i kontekstualno i iskustveno učenje koji doprinose sticanju trajnih i funkcionalnih znanja. *Cilj:* Cilj rada je da se analizom dostupne literature u periodu 2000–2022. godine istaknu prednosti primene kooperativnog učenja u neformalnim obrazovnim kontekstima u obrazovanju gluvih i nagluvih učenika. *Metod:* Za pretraživanje literature korišćeni su sledeći pretraživači: Ebscohost, ScienceDirect, KoBSON, Google Scholar. *Rezultati:* U neformalnim obrazovnim kontekstima celokupna perceptivna čulna iskustva gluvih i nagluvih učenika, mimo slušnog oštećenja, dobijaju na značaju, oživljavaju i bogate se u sisteme znanja i veština koji će im pomoći da razumeju svet koji ih okružuje, kao i da se u njemu snađu. Kooperativno učenje dalo je pozitivne rezultate u razvoju komunikativnih veština i akademskog postignuća gluvih i nagluvih učenika. Njegova primena kroz neformalne obrazovne kontekste dovela bi do efektivnijeg učenja i uspešnije socijalizacije gluvih i nagluvih učenika. *Zaključak:* Pored razvoja kognitivnih i socijalnih sposobnosti, interakcije koje se ostvare uz pomoć kooperativnog učenja u neformalnim kontekstima mogu doprineti i suštinskom ostvarenju inkluzije gluvih i nagluvih učenika, kako u obrazovanju, tako i u društvu.

Cljučne reči: neformalni obrazovni konteksti, kooperativno učenje, gluvi i nagluvi učenici

Uvod

Sama priroda oštećenja sluha navodi gluve i nagluve učenike da svoja znanja, sposobnosti i veštine razvijaju i organizuju na drugačiji način. Pojmove koje uče imenuju, povezuju sa konkretnim i očiglednim sadržajima, njihovim vizuelnim predstavama, gestovima i smeštaju u kontekste. U tim kontekstima upoređuju se sa drugim pojmovima, diferenciraju, klasifikuju i

generalizuju. Gluvi i nagluvi učenici integrišu sve te informacije koje dobiju o pojmu i formiraju predstave o njemu (Dimić i Isaković, 2018). Zbog toga se u njihovom razvoju i govora i jezika naglašava momenat konteksta, a samim tim i u procesu učenja, odnosno sticanja znanja. Predstave sveta i stvarnosti koje nastaju u percepciji gluvih i nagluvih učenika dobijaju više prostora i smisla kada se oslobode tradicionalnih nastavnih pristupa i formalnih konteksta učenja, a kroz ambijentalnu nastavu, odnosno u neformalnim kontekstima učenja, proširuju se i oživljavaju.

Neformalni obrazovni konteksti pojavili su se kao alternativa ili dopuna formalnim kontekstima učenja i postaju deo opšteg obrazovnog prostora. Cilj organizovanja učenja u neformalnim kontekstima jeste poboljšanje školskog obrazovanja na šta upućuju već i odlike neformalnih obrazovnih konteksta, poput fleksibilnosti, dinamičnosti i dostupnosti. Realizacijom vaspitno-obrazovnog procesa u autentičnim neformalnim kontekstima – ambijentima – otvara se mogućnost za neposrednu interakciju i iskustveno upoznavanje učenika sa ljudima, predmetima i stvarnim problemima (Anđelković i Stanisavljević-Petrović, 2013). Deca su od najranijeg uzrasta u stalnoj interakciji s neposrednim okruženjem, na koje aktivno deluju i učestvuju u stvaranju tog odnosa, odakle proizilazi potreba da se vanškolski konteksti iskoriste za njihovo formalno obrazovanje. Rast i razvoj deteta nemoguće je odvojiti od fizičkog i socijalnog konteksta, jer upravo oni otvaraju mogućnosti za podsticanje celokupnog razvoja jedne ličnosti (Anđić, 2007).

U okviru neformalnih obrazovnih konteksta model kooperativnog učenja posebno pronalazi svoje mesto. Interakcije i kooperacije u neformalnim kontekstima (ambijentima) su slobodnije, dinamičnije, usmerene ka ostvarivanju cilja, bez okvira i pravila koje nameće organizacija u formalnim kontekstima. U takvim uslovima učenici razvijaju odnose poverenja, kooperacije i empatije, stvarajući mogućnosti da učenje bude drugačije doživljeno i ispunjeno novim iskustvima (Anđelković, 2018). Kooperativno učenje inicira i unapređuje razvoj socijalnih veština u formalnim obrazovnim kontekstima. Socijalne interakcije koje gluvi i nagluvi učenici u ovakvom okruženju razvijaju ograničene su na školu i njene redovne članove. Kooperativno učenje i njegove prednosti idu u prilog i socijalnoj i obrazovnoj inkluziji gluvih i nagluvih učenika, ali se implementacija inkluzivnih programa i njihovo suštinsko sprovođenje moraju proširiti izvan okvira formalnih konteksta obrazovanja na neformalne. Ovakvi konteksti omogućavaju da predstave sveta i stvarnosti koje nastaju u percepciji gluvih i nagluvih učenika dobijaju više prostora i smisla, kao i da se njihova učenja i razvoj prošire i ožive.

Specifičnosti učenja gluvih i nagluvih učenika

Usled oštećenja sluha govorno-jezički razvoj je kod gluvih i nagluvih učenika usporen, lišen spontanosti, čime utiče na sam proces mišljenja i učenje. Učenje kod gluvih i nagluvih učenika počiva na formiranju, savladavanju i usvajanju termina i pojmova koji im omogućavaju razumevanje prirode stvarnosti koja ih okružuje (Karić, 2021).

Kod deteta oštećenog sluha zaostaje čitav jezički i intelektualni razvoj (Isaković i Kovačević, 2009). Gluvi i nagluvi učenici često usvajaju samo jedno, usko značenje reči i ne ovladavaju „fleksibilnom polisemijom”, reči koja omogućava da se značenje menja u zavisnosti od konteksta. Zbog toga se zadatak gluvog ili nagluvog deteta pri usvajanju jezika ne sastoji u jednostavnom usvajanju određenog rečnika, već u usvajanju rečnika koje je umnogome složenije (Isaković i Kovačević, 2009; Lurija, 1982). Pojmovi se imenuju, povezuju sa konkretnim i očiglednim sadržajima, njihovim vizuelnim predstavama, gestovima i smeštaju u kontekste. U tim kontekstima se upoređuju sa drugim pojmovima, diferenciraju, klasifikuju i generalizuju. Gluvi i nagluvi učenici integrišu sve informacije koje dobiju o pojmu i formiraju predstave o njima (Dimić i Isaković, 2018).

U razvoju osoba oštećenog sluha gest ima poseban značaj. Gluva osoba je vizuelan tip i sve što saznaje i doživljava čini putem vida. Sporazumevanje pokretima je rezultat psihičkog razvoja gluvog deteta, a i sam pokret pomaže taj razvoj (Dimić i Isaković, 2018). Na samom početku školovanja potrebno je gluvu i naglugu deca, primereno uzrastu, uvoditi u pojmove upoznavanjem sa definicijama pojmova, povezivati pojam sa ostalim pojmovima po različitim dimenzijama, određivati sadržaj jednog pojma preko drugih pojmova, sistematski graditi hijerarhijski organizovane mreže pojmova od jednostavnih, dvoslojnih, ka sve složenijim, što za ishod ima razumevanje veze među pojmovima i njihovog smisla u strukturi pojmovnog znanja (Lazarević, 1999, prema Isaković i Kovačević, 2009). U jednom momentu kod gluvih i nagluvih učenika formiranje pojmova radi razvoja govora i jezika ujedno postaje i put sticanja novih znanja iz različitih oblasti prirode i društva. Kada ovladaju terminima i pojmovima, stiču i znanja o izvesnim pojavama, predmetima i procesima koji se nalaze u njihovom neposrednom iskustvu. Zbog toga se u razvoju njihovog i govora i jezika, a samim tim u procesu učenja, odnosno sticanja znanja, naglašava momenat konteksta.

Cilj rada je da se analizom dostupne literature u periodu 2000–2022. godine ukaže na značaj primene kooperativnog učenja u neformalnim obrazovnim kontekstima u obrazovanju gluvih i nagluvih učenika.

Metode

Glavni kriterijum za selekciju radova bio je da opisuju prednosti i doprinose kooperativnog modela učenja, kao i učenja u neformalnim obrazovnim kontekstima za gluve i nagluve učenike. U skladu sa tim za pretraživanje literature korišćeni su pretraživači: Ebscohost, ScienceDirect, KoBSON, Google Scholar. Radovi su pretraživani na osnovu sledećih ključnih reči: neformalni obrazovni konteksti, učenje izvan školskog konteksta, značaj učenja u neformalnim obrazovnim kontekstima za gluve i nagluve učenike, model kooperativnog učenja, kooperativno učenje u obrazovanju gluvih i nagluvih učenika, model kooperativnog učenja u neformalnim obrazovnim kontekstima, primena kooperativnog učenja u neformalnim obrazovnim kontekstima u obrazovanju gluvih i nagluvih učenika. Ovaj rad uključuje skoro 40 studija iz domaće i inostrane literature (radovi na srpskom, engleskom, hrvatskom, španskom i portugalskom jeziku) koje su detaljno analizirane u skladu sa istraživačkim pitanjima.

Rezultati

Učenje u neformalnim obrazovnim kontekstima

Najčešće isticane slabosti tradicionalnog koncepta nastave prevashodno su usmerene na verbalistički karakter nastave, dominaciju monološke metode i frontalnog oblika rada, dominantnost nastavnika, opterećenost programa zastarelim informacijama, pasivnu, memorijsko-reproduktivnu ulogu učenika (Kovačević, Radovanović i Maćešić Petrović, 2019). Suštinu promena u obrazovanju čini promovisanje učenja sa razumevanjem, učenja rešavanjem problema istraživanja, učenja koje je povezano sa realnim životnim situacijama. U skladu sa tim izdvaja se pitanje konteksta, prostora i mesta učenja, jer je u dosadašnjoj koncepciji školsko učenje uglavnom bilo svedeno na učionicu i školski prostor, dok je vanučioničko učenje zapostavljeno (Ivić, Pešikan & Antić, 2001). Za razliku od tradicionalne nastave u učionicama, gde je učenik najčešće samo intelektualno angažovan, mogućnost primene različitih strategija nastave koje su zasnovane na koncepciji aktivne nastave, autentičnost i posebnost vanškolskih ambijenata pospešuju razvoj svih učenikovih potencijala (M. Vilotijević i N. Vilotijević, 2016).

Da bi prostor bio nastavni kontekst, on treba biti fizički, kulturološki, pedagoški i situacijski podsticajan, da pruži uslove za iniciranje interakcija, te podrži mogućnosti i sklonosti deteta – pojedinca (Purković i Bezjak, 2015). Fizički i socijalni kontekst se prožimaju, dopunjuju i predstavljaju integralne delove jedinstvenog spoljašnjeg, vanškolskog konteksta koji može postati i nastavni kontekst. U tom smislu spoljašnji kontekst podrazumeva stvaranje uslova za učenje, odgovarajuće organizovanje fizičke i socijalne sredine za

proces učenja i poučavanja, ali i podsticanje određene vrste odnosa, aktivnosti, uloga i načina shvatanja učenja i poučavanja (Krnjaja, 2008).

Neformalni obrazovni konteksti podrazumevaju okruženje u najširem smislu reči, tj. sve prirodne i društvene prostore kojima osnovna svrha nije vaspitanje i obrazovanje, ali se mogu koristiti i u te svrhe. Predstavlja dopunu formalnom i neformalnom obrazovanju, u smislu širenja obrazovnih aktivnosti izvan uobičajenih fizičkih i socijalnih obrazovnih konteksta koji daju značaj sadržaju učenja (Anđelković, Stanisavljević Petrović, 2013). Potencijali neformalnih, vanškolskih konteksta (priroda, muzej, galerija, zoo-vrtovi, botaničke bašte) nisu dovoljno iskorišćeni u formalnom obrazovanju, te je stoga neophodno istaći i ukazati na njihove mogućnosti i prednosti u vaspitno-obrazovnom radu. Glavno obeležje obrazovanja u neformalnim kontekstima je direktno iskustvo (kognitivno, emocionalno, socijalno, praktično). Neposredna stvarnost, prirodni i društveni ambijenti, imaju veoma značajno mesto i ulogu u procesu sticanja znanja, jer predstavljaju snažan, sveobuhvatan i nepresušan izvor za konstrukciju sistema znanja (Beams, Higgins & Nicol, 2012). Znanje stečeno na takav način trajnije je i primenjivije u različitim životnim situacijama od znanja stečenog verbalnim putem, transmisijom (Anđelković i Stanisavljević Petrović, 2013a). Aktivnosti u različitim ambijentima, odnosno kontekstima (muzeji, zoo-vrtovi, botaničke bašte, galerije, zanatske radionice, priroda, spomenici, kulturne ustanove, istraživački centri, opservatorije, laboratorije), omogućavaju učenicima da kroz raznovrsne interdisciplinarne i interaktivne aktivnosti i sadržaje razvijaju veštine, stavove i vrednosti. U skladu sa tim, ističe se da je cilj učenja i poučavanja nastave u neformalnim obrazovnim kontekstima susretanje sa prirodnim i kulturnim okruženjem, a samim tim aktivno učenje (Kadum i Blažević, 2009).

Učenje i poučavanje u vanškolskim kontekstima u značajnoj meri doprinosi boljem razumevanju sistema naučnih znanja iz različitih nastavnih predmeta. Fizičko-socijalni kontekst utiče na kvalitet i kvantitet sistema naučnih znanja, kao i transfer naučenog kroz nove situacije. Najčešće kroz istraživačke aktivnosti u autentičnim ambijentima van učionice učenici su u poziciji da izgrađuju mentalne strukture koje su smislene, relevantne i primenjive u rešavanju sličnih problema. Uvažavanjem mogućnosti da učenici imaju različito iskustvo i stvaranjem mogućnosti da različito tumače događaj ili pojavu u nastavnom procesu stvaraju se uslovi da učenik vlastitom aktivnosti konstruiše znanja i primenjuje različite puteve dolaska do znanja, čime se otvara mogućnost za razvoj složenih, mentalnih struktura (Anđelković, 2018). Ono što je najveća prednost neformalnih obrazovnih konteksta i što oni pružaju jeste mogućnost sticanja znanja i spoznaje sveta koji nas okružuje putem kontekstualnog i iskustvenog učenja. Kontekstualno učenje ima za cilj da pomogne učenicima da uvide smisao akademskih sadržaja koje uče kroz povezivanje sa kontekstom svakodnevnog života, odnosno sa kontekstom

svojih individualnih, društvenih i kulturnih vrednosti (Purković & Bezjak, 2015). Kontekstualno učenje pomaže u sagledavanju odnosa između nauke i svakodnevnog života. Primena kontekstualnog pristupa u nastavi prirodnih nauka doprinosi boljem konceptualnom razumevanju gradiva prirodnih nauka, kao i razvoju pozitivnijeg odnosa prema prirodnim naukama, naročito kod učenika sa posebnim potrebama (Putica & Trivić, 2017). Pored toga, predstavljanje gradiva u kontekstima koji su učenicima bliski i koje učenici poznaju predstavlja dobru osnovu za razvijanje unutrašnje motivacije učenika (Schwartz-Bloom et al., 2011). Kontekst predstavlja podlogu i iskustvenog učenja. U teoriji i praksi iskustvenog učenja polazi se od stava da je svako novo znanje, odnosno iskustvo, rezultat lične aktivnosti i rekonstrukcije postojećeg. Iskustveno učenje poseduje komponentu doživljaja koja je važna u procesu sticanja znanja. Putem iskustvenog učenja povezuju se neposredno iskustvo, doživljaj, opažanje, percepcija, saznanje, kognicija i akcija u neraskidivu celinu. Ono nije samo prenos simbola apstraktnog znanja, koncepta i zakonitosti, već proces transformacije iskustva u znanje, veštine i stavove, vrednosti i osećanja (Jarvis, 2003).

Realizacijom nastavnih aktivnosti u vanškolskim, neformalnim kontekstima (ambijentima) pravi se kvalitetniji pomak u nastavnom procesu, koji se pre svega ogleda u primeni funkcionalnih znanja u raznim životnim situacijama. Različite sredine mogu učenike staviti pred mnoge izazove – intelektualne, socijalne i emotivne. Zadatak nastavnika je da prepozna pedagoške potencijale prirodnih i društvenih konteksta i da ih upotrebi u obrazovne i vaspitne svrhe (Anđelković, 2018).

Prednosti neformalnih konteksta učenja za obrazovanje gluvih i nagluvih učenika

O prednostima i doprinosu neformalnih obrazovnih konteksta svedoči veliki broj inostranih i domaćih radova, ali kada su u pitanju gluvi učenici, taj broj se znatno smanjuje.

Silva (2018) naglašava značaj neformalnih konteksta za učenje kod gluvih učenika i opisuje ih kao prostore u kojima se njihovo učenje odvija na celovitiji, svrsishodniji način i koji su izuzetno korisni za podsticanje i razvijanje naučne pismenosti. Jedan od neformalnih konteksta koji posebno ističe jeste muzej. Muzeji su mesta u kojima naučna saznanja kreću da se pobuđuju i koji svojim izgledom i sadržajima intrigiraju radoznalost. Neformalni konteksti poput muzeja u svom prostoru predstavljaju delove iz sveta prirode i interpretiraju javnosti svetsku kulturnu baštinu. Dobro organizovane radionice, kao i predstave sveta prirode i društva u muzejima, navode učenike na razmišljanje i podstiču ih na interakciju i vođenje smislenih razgovora. Časot (Chassot, 1993) objašnjava da u muzejima učenici imaju priliku da nauku shvate kao jezik koji će im pomoći u čitanju prirodnog sveta i razvijanju naučne pismenosti

koja će im omogućiti da bolje razumeju i shvate svet prirode. Obrazovanje koje muzeji pružaju je sadržajnije, znanja se stiču putem iskustva, teorija se smislenije povezuje sa praksom i svaki od učenika ima mogućnost da to znanje usvaja i gradi na svoj način, svojim putem percepcije i saznanja (Burguière & Martinand, 2002; Silva, 2018). Autori navode da obrazovanje gluvih i nagluvih učenika u neformalnim kontekstima kakvi su muzeji mora uključiti i prevodioce koji će sadržaje iz muzeja prevoditi na znakovni jezik.

Treba imati u vidu da nije dovoljno da se sadržaji iz muzeja i generalno sadržaji koji se usvajaju kroz nastavu u neformalnim kontekstima samo prevode na znakovni jezik. Kako se radi o sadržajima koji dobijaju nastavni karakter, potrebno ih je i adekvatno objasniti uz poštovanje pedagoških principa i zakonitosti. U školama, odnosno formalnom kontekstu učenja, gluva i nagluva deca zajedno sa surdolozima uče o pojmovima i sadržajima koji se nalaze u prostorima neformalnih konteksta učenja, stiču osnovna znanja i pokušavaju da ih razumeju. Sada je potrebno da se u prostorima neformalnih konteksta učenja ta znanja povežu sa slikama i predstavama koje se u njima nalaze, kako bi se mogla lakše shvatiti i proširiti. Smatramo da će taj proces biti dosta uspešniji ukoliko u njemu surdolozi imaju vodeću ulogu, a ne prevodioci znakovnog jezika. Surdolozi su ti koji treba da izvode nastavne aktivnosti u različitim ambijentima neformalnog konteksta učenja, da adekvatno prenose znanja služeći se znakovnim jezikom, dok su prevodioci saradnici koji im pomažu da se u tom prevođenju snađu i pronađu odgovarajuće znakovne interpretacije pojmova.

Značaj i prednosti neformalnih konteksta za gluve i nagluve učenike ističu i Rumjanek i saradnici (Rumjanek et al., 2012), kao i Meis (Meis, 2007). Oni sugerišu da se naučni sadržaji i naučna znanja bolje usvajaju u neformalnim kontekstima učenja, odnosno kada se takvi sadržaji predstavljaju kroz eksperimente, u laboratorijama. Zanimljivo je i da se posebno izdvaja da na učenje gluvih i nagluvih učenika veoma pozitivno utiču 3D modeli koji se nalaze u objektima neformalnih konteksta za učenje (Albuquerque, 2007). Neformalni konteksti su pravi izbor i kada treba osmisliti i primeniti edukativne igrice. Edukativne igrice izazivaju uzbuđenje i navode na korišćenje interaktivnih, zabavnih strategija za dolaženje do rešenja, intrigiraju i motivišu decu da na jednostavan i zanimljiv način istražuju naučne sadržaje i generalno doprinose razvoju ličnih i socijalnih veština (Campos, Feliciu & Bartoloto 2003). Kroz sadržajne nastavne aktivnosti u neformalnim kontekstima učenja interakcije jačaju i dolazi do razvijanja grupne dinamike, čime se pokreću diskusije, razmenjuju ideje, usavršavaju znanja i vode razgovori koji podstiču jasnije i bolje izražavanje misli (Dias et al., 2014).

Prednosti i benefiti neformalnih konteksta učenja predmet su istraživanja i u radovima domaćih autora, sa posebnim osvrtom na njihov značaj u obrazovanju gluvih i nagluvih učenika. Ističe se da se u okvirima neformalnih

konteksta učenja, odnosno ambijentalne nastave, podstiče paralelno angažovanje i animiranje većeg broja, te da se sinhronizacijom čulnih utisaka stvaraju kompleksne slike sveta. U neformalnim kontekstima učenici imaju mogućnost da se u skladu sa potencijalima kojima raspolažu izraze na različite načine – kroz pokret, glumu, slikanje, vajanje... – čime se pruža prilika da rešavanju problema pristupe na kreativan i autentičan način (Anđelković i Karić, 2011). Kroz pokret u okviru sportskih i rekreativnih aktivnosti deca se uče i shvataju šta je saradnja, koja su pravila igara, šta je disciplina, razvijaju percepciju prostora, koji su zakoni fizike; aktivnosti slikanja i vajanja vode ka razvijanju osećaja za estetiku kroz direktan kontakt sa prirodom i stvarnošću koja ih okružuje; istraživačke aktivnosti u prirodi upoznaju decu sa biljkama, životinjama i prirodnim pojavama.

Dobra integracija čulnih utisaka jeste uslov za pravilno iskustveno saznanje i put ka transformaciji opažajno-praktičnog mišljenja u pojmovno (Službeni glasnik – Prosvetni glasnik RS, br. 7/2010). Sama priroda oštećenja sluha navodi gluve i nagluve učenike da svoja znanja, sposobnosti i veštine razvijaju i organizuju na drugačiji način. U organizaciji njihovih čulnih utisaka dominiraće informacije iz očuvanih čula – čula vida, mirisa, ukusa i dodira – te će slike sveta biti percipirane na drugačiji način. Predstave sveta i stvarnosti koje nastaju u percepciji gluvih i nagluvih učenika dobijaju više prostora i smisla kada se oslobode tradicionalnih nastavnih pristupa i formalnih konteksta učenja, a kroz ambijentalnu nastavu, odnosno u neformalnim kontekstima učenja, proširuju se i oživljavaju.

U neformalnim kontekstima učenja, kroz tribine, sekcije, izlete, lokalne akcije učenici razvijaju svest o sebi i vlastitim potrebama, svest o okolini koja ih okružuje, samopoštovanje, odgovornost, toleranciju, preduzimljivost, kulturu mira, uče se nenasilnom rešavanju konflikta i dijalogu (Anđelković i Karić, 2011). Od posebnog značaja su interpersonalni odnosi, kao i sposobnosti i veštine komunikacije koje nastaju i razvijaju se u ovakvim kontekstima (Karić, 2002).

Model kooperativnog učenja u neformalnim obrazovnim kontekstima

„Kooperativno učenje odnosi se na skup nastavnih metoda u kojima su učenici ohrabreni i podsticani da rade zajedno u malim grupama, da razmenjuju ideje, raspravljaju i pomažu jedni drugima da bi ostvarili grupni cilj” (Petrović, 2006, str. 47). Uloga nastavnika se bitno menja: od primarno predavačke, postaje uloga koordinatora rada grupa i onoga ko podstiče grupne procese. Vršnjačka interakcija je ključni element kooperativnog učenja (Ševkušić, 2003). Saradničke aktivnosti, a posebno interaktivni odnosi između učenika u procesu rešavanja problema, doprinose zajedničkom izgrađivanju znanja (Milutinović, 2012).

“Odnosi koje dete uspostavlja i razvija sa drugima određuju njegov razvoj i učenje. Kroz vlastite aktivnosti i u interakciji sa drugima deca upoznaju i razumeju svet oko sebe, uče kako da na siguran način istražuju svoju okolinu i kako da tumače i konstruktivno se nose sa širokim spektrom osećanja, misli i iskustava” (Pavlović Breneselović, 2012, str. 133). Učenje u zajedničkim aktivnostima predstavlja interaktivni proces koji podrazumeva razmenu znanja, iskustava, stavova i verovanja. Zajedničke ili kooperativne aktivnosti omogućavaju da znanje koje je konstruisano kroz lično iskustvo pojedinaca bude „dosledno” znanjima koja se dele sa drugima (Pešikan, 2013). Tokom kooperativnog učenja pojedinci suprotstavljaju različita gledišta i sarađuju da bi ostvarili zajednički cilj (Mirkov i Lalić, 2006). Efikasnost i efektivnost kooperativnog učenja u postojećim istraživanjima ogleda se u brojnim postignućima. Uz pomoć kooperativnog modela učenja učenici postižu bolje rezultate na testovima znanja (Kramarski & Mevarech, 2003; Shachar & Fischer, 2004; Supanc et al., 2017; Tadesse et al., 2020), uspešno razvijaju međusobne odnose i spremni su da pomažu jedni drugima prilikom učenja (Gillies, 2004). Takođe, učenici su inicijatori interakcije sa drugim učenicima (Tadesse et al., 2020). Kooperativno učenje podstiče pozitivne stavove prema razlikama koje postoje među učenicima, a rezultati su pokazali da iskustva kooperativnog učenja generalno unapređuju pozitivne stavove prema različitosti. Takozvana „žigosana” deca opažana su od vršnjaka kao da više vrede, da su pametnija i da više doprinose učenju ostale dece, češće su birana u grupe za učenje i pozivana u interakciju van školskih situacija (Ševkušić, 2003).

Neformalni konteksti (ambijenti) – priroda, institucije i drugi objekti van škole – omogućavaju drugačiju komunikaciju i interakciju učenika u procesu učenja. Istraživanja koja ukazuju na prednosti i benefite ambijentalne nastave, odnosno nastave u neformalnim kontekstima, posebno ističu saradnju između učenika i kooperativni rad (Jordet, 2010; Mygind 2009). Tokom nastave učenici se nalaze pred novim komunikacijskim izazovima, a učenje shvaćeno kao saradnički, odnosno kooperativni proces, dobija svoj puni smisao. Rad na zajedničkim zadacima i projektima zahteva od učenika saradnju i međusobno dogovaranje. Intelektualna fleksibilnost, kritičnost, tolerancija u interpersonalnim odnosima, poštovanje i prihvatanje drugih dolaze do izražaja posebno kroz rešavanje zajedničkih zadataka na terenu, i to u manjim grupama ili timskom radu (Anđelković, 2018). Istraživanja potvrđuju da kooperativno učenje povećava samopouzdanje učenika, kao i pozitivne stavove prema ostalim učenicima i školi uopšte. Kooperativni rad učenika na projektima u prirodi utiče na buđenje senzibilnosti, motivaciju, osećanja dostojanstva, pripadnosti, tolerancije prema drugima i drugačijima (Zhang, 2013). Interakcije i kooperacije u neformalnim kontekstima (ambijentima) su slobodnije, dinamičnije, usmerene ka ostvarivanju cilja, bez okvira i pravila

koje nameće organizacija u formalnim kontekstima, što utiče na razvoj kooperacije, empatije i na drugačiji doživljaj učenja (Anđelković, 2018).

U neformalnim kontekstima učenja aktivnosti su podređene grupama, a organizacija rada gluvi i nagluvi učenika u grupama koje odgovaraju kooperativnom učenju omogućava pristup nastavi koji je individualizovan i prilagođen. Ovakav pristup dalje vodi ka svrsishodnijem i efektivnijem učenju.

Prednosti primene kooperativnog učenja u neformalnim obrazovnim kontekstima za obrazovanje gluvi i nagluvi učenika

Tradicionalni modeli nastave nisu se pokazali adekvatnim i efektivnim u procesu obrazovanja gluvi i nagluvi učenika. Inovativni, alternativni model, koji vođen principom individualizacije može zadovoljiti edukativne potrebe i poštovati specifičnosti usvajanja znanja gluvi i nagluvi učenika, jeste upravo kooperativni model učenja (Ristić i Kovačević, 2022). Istraživanja koja se bave uticajem i efektom kooperativnog učenja kod gluvi i nagluvi učenika dovode do različitih rezultata. S jedne strane, istraživanja pokazuju da su potencijali gluvi i nagluvi učenika za učenje u saradničkim grupama zbog teškoća u komunikaciji ograničeni, pa su samim tim i obrazovni ishodi ograničeni (Avcioglu, 2007). S druge, kooperativno učenje u pokazalo se kao odgovarajuća strategija i dalo je pozitivne rezultate baš u međusobnoj komunikaciji između gluvi i nagluvi učenika, ali i između njih i učenika urednog sluha u inkluzivnim razredima (Marchettiet al., 2012). Takođe, gluvi i nagluvi učenici su nakon primene kooperativnog modela učenja postizali bolje rezultate na finalnim testovima i ispitivanjima (Ristić i Kovačević, 2022).

U ambijentalnoj nastavi, odnosno nastavi u neformalnim obrazovnim kontekstima, fokus se sa predmeta i sadržaja učenja pomera na aktivnosti učenja, interakciju i kooperativni rad učenika. Primenom ambijentalne nastave u vaspitno-obrazovnom procesu učenici se upoznaju sa aktivnim, participativnim, iskustvenim pristupom učenju i stiču kompetencije za kooperativni rad na interdisciplinarnim projektima i istraživanjima u različitim ambijentima (Anđelković, 2018). Interdisciplinarni pristup podrazumeva povezivanje tema i sadržaja kako u okviru istog, tako i između različitih predmeta. Interdisciplinarno sagledavanje nastavnih sadržaja doprinosi višim saznavnim nivoima i kvalitetnom učenju jer uvodi učenike u interaktivno učenje i konstrukciju znanja (Borich, 2007). Takav pristup takođe omogućava primenu raznovrsnih nastavnih strategija, oblika i metoda rada, što doprinosi dubljem razumevanju nastavnog gradiva, čime se utiče i na postignuća u nastavi (Z. Dolenec i P. Dolenec, 2013). Ambijenti izvan učionice, kao specifični fizički ali i socijalni konteksti za učenje i poučavanje, pružaju izvanrednu priliku za učeničku ko-konstrukciju znanja, pri čemu se menja i uloga nastavnika koji postaje kreator nastavnih situacija u autentičnim kontekstima. Fizičko i socijalno okruženje omogućavaju veće misaono angažovanje učenika pri rešavanju

najčešće tematskih zadataka i problema, kroz direktan kontakt sa predmetima saznanja. U procesu konstrukcije znanja veoma je važna interakcija, odnosno kooperativni rad između nastavnika i učenika, ali u vanučioničkoj nastavi i interakcija između učenika i partnera iz lokalnog okruženja koji u pojedinim delovima nastave preuzimaju nastavničku ulogu. Nastavnik je inicijator i motivator, saradnik i partner koji navodi učenika da posmatra i istražuje, da prikuplja informacije i iznosi ideje i predloge (Anđelković, 2018).

Konstrukcija znanja u procesu učenja kod gluvih i nagluvih učenika teče na osnovu prikupljenih čulnih utisaka i percepcije koju su izgradili i razvijali. Treba imati u vidu da je percepcija gluvih i nagluvih učenika bogata informacijama koje dolaze iz različitih čulnih kanala – vizuelnog, taktilnog, olfaktornog, gustativnog – iako je prisutno oštećenje sluha. Nedostatak informacija iz auditivnog kanala ne mora nužno ugroziti perceptivni svet gluvih i nagluvih učenika, već dovodi do drugačijeg i specifičnijeg formiranja iskustava i sticanja znanja. Neformalni obrazovni konteksti pružaju prirodni sticanja znanja kakva jeste kod gluvih i nagluvih učenika širu sliku i prostore za svrsishodnije, efektivnije i fleksibilnije učenje i kognitivni razvoj.

Učenje nastaje učeničkim interakcijama sa prirodnim svetom u određenom sociokulturnom kontekstu, uz dinamično posredovanje njihovih prethodnih znanja (Jukić, 2013). Iskustveno učenje doprinosi razvijanju svih snaga pojedinca, razvijanje poverenja u vlastite mogućnosti. Socijalni razvoj je jedan od važnih ishoda obrazovanja u neformalnim prirodnim i socijalnim kontekstima (ambijentima). Grupni rad, razmena ideja, razvijanje komunikativnih veština, tolerancije, pregovaranja samo su neke od veština koje se razvijaju kroz participaciju u grupnim aktivnostima na terenu, kroz suživot i razmenu sa ljudima koji pripadaju različitim kulturama, kroz razumevanje i poštovanje mišljenja i izbora drugih (Anđelković i Karić, 2011; Anđelković, 2018). Atmosfera je pozitivna jer se u aktivnosti učenja uključuju i partneri iz šire društvene zajednice, što nastavni proces čini dinamičnijim i zanimljivijim, dok na pojačavanje zadovoljstva utiče rad na istraživačkim, projektnim ili zadacima u radionici (Borić i Škugor, 2014). Razvijaju se veštine rada u timu, interakcija, kreativnost, grupno donošenje odluka, zajedničko planiranje, tolerancija i smanjuje se negativno ponašanje učenika (Waite, 2011). Primenom modela kooperativnog učenja u neformalnim obrazovnim kontekstima interakcije među učenicima se unapređuju u okviru prostora koji omogućavaju da se odvijaju slobodnije i dinamičnije. U takvim uslovima socijalizacija učenika postaje uspešnija, ali se i podstiču kontekstualno i iskustveno učenje, koji doprinose sticanju trajnih i funkcionalnih znanja.

Iz svega izloženog uočava se da neformalni obrazovni konteksti ostvaruju veliki uticaj na socijalni razvoj gluvih i nagluvih učenika, što ne podrazumeva samo kvalitet interakcija sa porodicom, vršnjacima i nastavnicima već i prihvaćenost od članova šire društvene zajednice, odnosno inkluziju u društvu.

Neformalni obrazovni konteksti mogu doprineti i obrazovnoj i socijalnoj inkluziji gluvih i nagluvih učenika. Kvalitet znanja, veština, interakcija i odnosa koji se stvaraju u neformalnim obrazovnim kontekstima vode ka sadržajnijem i smislenijem sprovođenju inkluzije, kako u školama, tako i u širim društvenim zajednicama.

Zaključak

Neformalni obrazovni konteksti predstavljaju edukativne prostore gde se učenje odvija kroz direktno iskustvo i u dodiru sa prirodnom i društvenom stvarnošću koja nas okružuje. Učenje podržano kontekstima i iskustvom je dinamičnije, funkcionalnije, efektivnije, trajnije i omogućava bolje povezivanje znanja i razumevanje sveta u kome živimo. U ovakvom konceptu učenja, gluvi i nagluvi učenici mogli bi da funkcionišu još bolje oslanjajući se na model kooperativnog učenja, jer se ono zasniva se na međusobnoj saradnji i interakcijama među gluvim i nagluvim učenicima, ali i među gluvim i nagluvim i čujućim učenicima. Njihovo zajedničko angažovanje u parovima ili malo većim grupama omogućava da napreduju u procesu učenja i rešavanju problema. Kooperativno učenje pomaže gluvim i nagluvim učenicima u razvoju komunikativnih veština i sposobnosti za sticanje i unapređivanje znanja. Razumevanjem prirode saznanja i učenja gluvih i nagluvih učenika jasnije se uočavaju i prednosti neformalnih obrazovnih konteksta i sticanja znanja. Putevi formiranja pojmova, razvijanja jezika i sticanja znanja, podržani modelom kooperativnog učenja, usmeravaju gluve i nagluve učenike na okruženja i uslove za učenje kakvi postoje u neformalnim obrazovnim kontekstima, a koji im pružaju mogućnost da upotpune i ožive svoje perceptivno iskustvo, te znanja učine smislenijim i funkcionalnijim.

Glui i nagluvi učenici često su izloženi stigmatizaciji i diskriminaciji, kako u školskim okruženjima, tako i u široj društvenoj zajednici, što može dovesti do problema u socijalizaciji i obrazovanju. U situacijama kada su kroz neformalne obrazovne kontekste vođeni kooperativnim učenjem, oni se mogu usmeriti na učenje, druženja i sopstvene prednosti i razvoj umesto na svoje nedostatke i različitosti. U ovakvom konceptu mogu se osetiti uvaženim i prihvaćenim, što vodi suštinskom ostvarenju njihove inkluzije i u obrazovnim kontekstima, i u društvu. Implikacije koje proizilaze iz ovog rada mogu usmeriti dalja istraživanja na prednosti kombinacije kooperativnog modela učenja i neformalnih obrazovnih konteksta i njihovu primenu u praksi.

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The importance of cooperative learning for deaf and hard-of-hearing students in informal educational contexts

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Introduction. This paper aims to present the most adequate conditions and access for the learning and development of deaf and hard-of-hearing students. By applying the cooperative learning model in informal educational contexts, interactions between students are enhanced within spaces that allow these interactions to take place more freely and dynamically. In these conditions, student socialization becomes more successful, and contextual and experiential learning is also encouraged, which contributes to the acquisition of permanent and functional knowledge. *Objective.* The aim of the paper was to analyze the available literature from 2000 to 2022 to highlight the advantages of applying cooperative learning in informal educational contexts in the education of deaf and hard-of-hearing students. *Method.* The following search engines were used for the literature search: Ebscohost, ScienceDirect, KoBSON, and Google Scholar. *Results.* In informal educational contexts, the entire perceptive sensory experiences of deaf and hard-of-hearing students, despite the hearing impairment, gain importance, come to life, and are enriched in a system of knowledge and skills that will help them understand the world around them and find their way in it. Cooperative learning has produced positive results in the development of communication skills and academic achievement of deaf and hard-of-hearing students. Its application through informal educational contexts would lead to effective learning and successful socialization. *Conclusion.* In addition to the development of cognitive and social abilities, interactions created with the help of cooperative learning in informal contexts can contribute to the essential realization of the inclusion of deaf and hard-of-hearing students, both in education and society.

Keywords: informal educational contexts, cooperative learning, deaf and hard-of-hearing students

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Toaletni trening kod dece s nekim razvojnim poremećajima

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Ovladavanje veštinama u okviru toaletnog treninga u detinjstvu smatra se značajnom razvojnom odrednicom. Sticanje veština pravilnog korišćenja toaleta kod dece s razvojnim poremećajima često je odloženo. Cilj ovog rada je da izloži moguće probleme koji se javljaju kod dece sa intelektualnom ometenošću, poremećajem iz spektra autizma i cerebralnom paralizom tokom uspostavljanja toaletnih veština, kao i da ukaže na intervencije koje su se u ovom domenu pokazale efikasnim. U radu je ukazano na specifičnosti svake od tretiranih kliničkih slika u pogledu ovladavanja veštinama tokom toaletnog treninga. Posebno su obrađene bihevioralne intervencije, za koje je naglašeno da je ključno da budu individualizovane na osnovu fizičkih ograničenja i kognitivnog statusa deteta. Među efikasnim intervencijama ističu se potkrepljenje, podsticanje, gašenje, demonstracije, vizuelni rasporedi i druge, koje su izvedene iz programa tretmana za decu sa razvojnim poremećajima.

Ključne reči: toaletni trening, kontinencija, razvojni poremećaji

Uvod

Toaletni trening (TT) predstavlja važnu razvojnu prekretnicu za decu i roditelje. Definicija uspešnog TT varira u zavisnosti od kulture, ali obično uključuje postizanje kontinencije bešike i creva sa sposobnošću da se izrazi potreba za eliminacijom (Fleming & MacAlister, 2016; Wilde, 2022). Kontinencija je dobrovoljna kontrola nad urinarnim i fekalnim pražnjenjem i zavisi od hormonske, mišićne i neurološke kontrole. Neuspeh da se postigne ili održi kontinencija naziva se inkontinencijom i predstavlja nehotični gubitak urina ili fekalija. Manifestacije inkontinencije obuhvataju opseg od povremenog curenja do nemogućnosti kontrole mokrenja, a to može

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Rad je nastao kao rezultat istraživanja na projektu „Kreiranje Protokola za procenu edukativnih potencijala dece sa smetnjama u razvoju kao kriterijuma za izradu individualnih obrazovnih programa” (179025) broj ugovora 451-03-68/2022-14 koji finansira Ministarstvo nauke, tehnološkog razvoja i inovacija Republike Srbije.

biti kratkoročni ili dugoročni ishod, u zavisnosti od faktora koji na to utiču (McCann et al., 2022). Inkontinencija se može desiti svakome i javlja se u svim starosnim grupama. Međutim, ta pojava češća je kod osoba koje imaju neke od razvojnih poremećaja (RP) (Bell, 2019).

U zapadnoj kulturi većina dece tipičnog razvoja obučava se da koristi toalet u uzrastu između 24. i 48. meseca, mada se u literaturi navode i procene autora o usvajanju ovih veština već od 18. do 24. meseca (Schum et al., 2002). Spremnost za početak TT zavisi od bihevioralnih, fizioloških i razvojnih kriterijuma, a ne nužno od hronološkog uzrasta deteta. Ovi kriterijumi uključuju fizičke sposobnosti (npr. sposobnost da se dođe do toaleta, skine se i sedi stabilno), kognitivne sposobnosti (npr. izražavanje i vokalizovanje potrebe) i dobrovoljnu kontrolu mehanizama sfinktera. Pored toga, dete treba da bude svesno punjenja bešike, da inhibira njene refleksne kontrakcije i da počne dobrovoljno da se prazni na socijalno prihvatljiv način (Wilde, 2022).

TT uključuje učenje razumevanja radnji, jezika i rutina uključenih u ovladavanje korišćenja toaleta, kao i razvijanje veština i nezavisnosti u upravljanju njima. Prisustvo teškoća ili ograničenja u fizičkom razvoju, funkcionisanju creva i bešike, komunikaciji, razumevanju i senzornom unosu može otežati učenje ovih veština (Bell, 2019; Cocchiola & Redpath, 2017; Smith & Chaneb, 2016). Dakle, ovaj trening ne podrazumeva samo izlazak iz pelena i zaštitu od inkontinencije, već uključuje širok spektar veština koje su detetu potrebne da bi postalo pouzdano čisto i suvo i steklo kontrolu nad svojim crevima i bešikom. Postoji niz poteškoća koje se mogu pojaviti tokom podučavanja veština kontinencije i one se mogu javiti na početku, u toku ili na kraju TT. Priprema je najvažniji faktor u obezbeđivanju uspeha TT. Zato je važno isplanirati efikasnu pripremu, proceniti spremnost i planirati kada i na koji način započeti sprovođenje programa TT-a (Ramachandra & Figueroa, 2020).

TT predstavlja kombinaciju postizanja kontinencije i istovremenog dovršavanja niza aktivnosti povezanih sa toaletom, uključujući odlazak u kupatilo, svlačenje, pražnjenje u toalet, oblačenje, pranje ruku i izlazak iz kupatila (Perihan et al., 2021). Deca će često imati različite probleme, tako da planovi podrške u razvoju veština korišćenja toaleta moraju biti individualizovani, uz visoko poštovanje dostojanstva individue. Ciljevi se često moraju odrediti prioritetima i učenje pojednostaviti kroz postupni pristup (Fleming & MacAlister, 2016).

Defektolozi i roditelji mogu da uključe ciljeve vezane za TT u deo vrtičkog IOP-a. Intervencije u okviru TT za decu s RP često su intenzivnije od programa koji se sprovode kod dece tipične populacije. Intenzitet intervencija TT postaje jači kako se povećava nivo intelektualnog deficita (Matson & Issarraras, 2019). U literaturi se preporučuje metod brze obuke u toaletu za decu s RP, a uključuje intervencije defektologa, vaspitača, roditelja ili

staratelja koje se zasnivaju na: pozitivnom potkrepljenju za regulaciju procesa, povećanom unosu tečnosti (uz neophodne mere predostrožnosti), uputstvima za samoinicijaciju i uvežbavanju oblačenja (Kroeger & Sorensen, 2010). Studije pokazuju da kada se sledi strukturirani protokol, TT se obično može realizovati u relativno kratkim vremenskim periodima (Duker et al., 2001).

Iako je Institut za javno zdravlje Srbije „Dr Milan Jovanović Batut” publikovao Stručno-metodološko uputstvo za primenu Registra dece sa smetnjama u razvoju (Institut za javno zdravlje Srbije „Dr Milan Jovanović Batut”, 2021), još uvek nema konačnog odgovora na pitanje koliko dece s RP živi u Srbiji. Ipak, jasno je da podaci sa terena, tj. iz vrtićkih i predškolskih razvojnih grupa, ukazuju na učestalo prisustvo tri kliničke slike u okviru RP, a to su intelektualna ometenost (IO), poremećaj iz spektra autizma (PSA) i cerebralna paraliza (CP). Iz tog razloga cilj ovog rada je da izloži moguće probleme koji se javljaju kod dece sa IO, dece sa PSA i dece sa CP tokom uspostavljanja toaletnih veština, kao i da ukaže na intervencije koje su se u ovom domenu pokazale efikasnim.

Toaletni trening kod dece s intelektualnom ometenošću

Kod dece s IO prisutan je deficit različitog stepena u okviru brige o sebi i lične higijene (APA, 2013; Đurić-Zdravković, 2020). Osobe sa IO prepoznate su kao populacija sa većim rizikom od inkontinencije nego što je to slučaj s osobama tipičnog razvoja, a ova pojavnost posebno je uočljiva među osobama sa težim intelektualnim i fizičkim deficitom (Bell, 2019). Važno je navesti da istraživanja pokazuju da će kontinencija biti odložena u detinjstvu kod dece s IO, tj. da će vrlo verovatno postojati kašnjenje tog procesa, a u mnogim slučajevima inkontinentnost se zadržava i u odraslom dobu (Matson et al., 2011).

Inkontinencija je povezana sa različitim stanjima, a primarni uzrok za osobe sa IO je verovatno uslovljen prirodom njihovog intelektualnog i/ili fizičkog deficita. Neurološke i fizičke smetnje mogu biti osnovni uzroci inkontinencije, a eventualni disbalansi u radu bubrega mogu pogoršati situaciju. Mnoga deca sa IO mogu imati problem sa postizanjem kontinencije ako nisu u stanju da razumeju biološke signale za mokrenje i defekaciju. Takođe, mogu postojati psihološki i biheviornalni razlozi za nepravilno mokrenje i nuždu. Deca s IO imaju problem da povežu osećaj pune bešike/creva sa mokrenjem/defekacijom i odlaskom u toalet. Iskustveno učenje kod ove dece ne mora uvek da podrazumeva uspešnu realizaciju: ako je odlazak u toalet jednom bio uspešan, ne znači da će se ponoviti s istim uspehom (nedostatak generalizacije). Deca s IO takođe često ne razumeju procedure odlaska u toalet i imaju problem da ih samostalno izvode. Potrebna im je veća pomoć u slučaju nezgoda u kojima se dešava zaprljavanje/kvašenje (Belva et al., 2011; Cocchiola & Redpath, 2017).

Ističe se komparabilni inverzni odnos težine IO i stope inkontinencije: što je teži intelektualni deficit (niži IQ), to je veća stopa inkontinencije. U odnosu na decu tipičnog razvoja, deca sa IO pokazuju više nepotpunog pražnjenja i manje kapacitete mokraćne bešike, kao i prisustvo prekinutog urotoka. Neki sindromi koji kao integrativni deo kliničke slike imaju IO, nose veći rizik od anomalija urogenitalnog trakta (kao kod Vilijamsovog sindroma), dok drugi imaju veću stopu gastrointestinalnih poremećaja (kao kod Muvat–Vilsonovog sindroma), a neki ispoljavaju oba navedena problema (Daunov sindrom) (von Gontard et al., 2022). U tim slučajevima situacija sa uspostavljenjem TT može biti još kompleksnija.

Inkontinencija se često posmatra kao neizbežna posledica IO, pa TT nije uvek prioritet ili se čak i ne razmatra. Međutim, uz procenu, planiranje i odgovarajuću podršku, mnoge osobe sa IO imaju realne šanse da uspostave kontinenciju. Zato kod osoba sa IO ovaj problem ne treba smatrati neizbežnim ili neodgovarajućim za sprovođenje intervencije u bilo kom uzrastu (Bell, 2019).

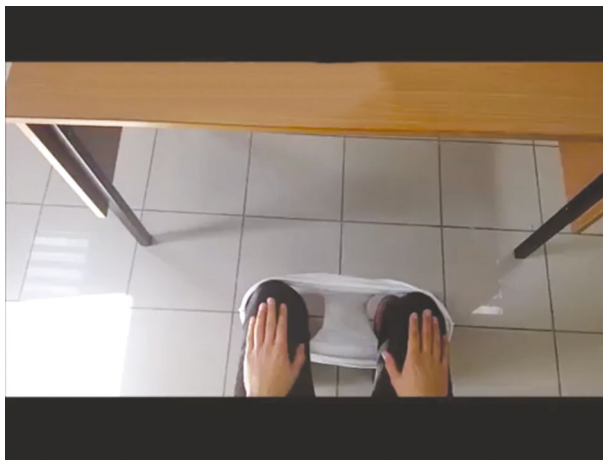
Kod sve dece sa RP aktivnosti u okviru TT povezane sa ekskrecijom (čuvanje i menjanje pelena, čišćenje, brisanje, upotreba noše itd) treba obavljati u toaletu, a ne u spavaćoj, porodičnoj dnevnoj, ili radnoj vrtićkoj sobi, jer je važno da dete nauči da povezuje aktivnosti mokrenja/defekcije sa toaletom. Tretman dece sa IO često treba da se fokusira na osnovne aspekte uroterapije, kao što su vremensko pražnjenje, dovoljna količina oralne tečnosti, toaletne navike i higijena. U zavisnosti od kategorije IO, direktna potkrepljenja su efikasnija u odnosu na odložene nagrade koje koriste sisteme tokena. Mogu se koristiti i komponente bihevioralne tehnike, kao što su podsticanje, gašenje, pa čak i neke opravdane averzivne intervencije (npr. u slučaju samopovređivanja ili socijalno neprihvatljivog ponašanja kao što je razmazivanje fekalijama). Roditelji, defektolozi-vaspitači i staratelji moraju biti uključeni u TT intenzivnije nego što je to slučaj kod nekih drugih RP. Konačno, pored kategorije IO, u planiranju TT mora se uzeti u obzir i specifični fenotip ponašanja (von Gontard et al., 2022). Kada deca (uglavnom ona sa teškom/dubokom IO) ne mogu da prijave osećaj poriva, treba posmatrati govor tela. Neka deca pokazuju specifično ponašanje (npr. manevri držanja itd.) pre mokrenja/defekcije (Cocchiola & Redpath, 2017).

Tokom TT treba protežirati da dete sedi na toaletu u trenucima kada su mokrenje i/ili defekacija najverovatniji (na primer, posle obroka, svakih sat do dva) i podsticati slučajno pražnjenje u toaletu. Treba upotrebljavati demonstraciju (jedan od koraka prikazan je na Slici 1) i koristiti, na primer, lutke za pokazivanje funkcionisanja upotrebe toaleta. Uputno je takvu vežbu koristiti i u vrtiću i kod kuće. Potrebno je sedeti na noši/šolji u cilju forsiranja svakodnevnih vežbi, uz korišćenje pohvale/male nagrade. Korisno je prisustvo vizuelnih sredstava (slike, znakovi, kartice itd.) u kupatilu ili verbalnih

napomena. Važno je najpre ovladati prvim korakom u procesu i tretirati ga sve dok dete ne može to da izvede bez problema, a zatim treba uključiti sledeći korak i tako dalje (koristiti ulančavanje, oblikovanje). Tokom TT važno je podsećati dete da planira vreme za toalet u određeno doba dana (na primer, posle jela, pre izlaska itd.) (Bell, 2019; Cocchiola & Redpath, 2017; Matson & LoVullo, 2009; von Gontard et al., 2022).

Slika 1

Korak u procesu demonstracije tokom TT



Toaletni trening kod dece sa poremećajem iz spektra autizma

Noćno mokrenje, dnevna urinarna i fekalna inkontinencija učestalije su kod dece sa PSA nego kod dece tipičnog razvoja (Niemczyk et al., 2018). Deca sa PSA imaju poseban rizik od opstipacije i drugih funkcionalnih gastrointestinalnih poremećaja. Uspešan ishod TT niži je nego kod dece tipičnog razvoja (Holingue et al., 2018). Deca sa PSA mogu imati niz poteškoća u vezi sa odlaskom u toalet. Mogu postojati fizički problemi sa zrelošću ili funkcionisanjem bešike ili creva, koji nisu povezani sa njihovom primarnom kliničkom slikom. Druge teškoće mogu biti povezane sa specifičnostima vezanim za PSA, kao i kašnjenjem u razvoju i razumevanju (Fleming & MacAlister, 2016; Wilde, 2022). Jedan od integrativnih simptoma ove kliničke slike podrazumeva deficit socijalne komunikacije i interakcije (Đurić-Zdravković, 2020). Iz tog razloga može da se dogodi da dete ne uspeva da saopšti roditelju/defektologu informaciju o svojoj potrebi za pražnjenjem ili nuždom, kao i da ne razume razloge za mokrenjem i zbog toga ne dobija podršku. Isto tako, dete sa PSA možda neće razumeti pitanja privatnosti i dostojanstva koja su povezana sa toaletom. Moguće je da dođe do vršenja nužde

na socijalno neprihvatljivim mestima, ili do neshvatanja značaja inkontinencije (von Gontard et al., 2022).

Imajući u vidu ponavljajuće obrasce ponašanja tipične za ovu kliničku sliku koji se odnose na stereotipne aktivnosti, insistiranje na istovetnostima, ograničene interese ili neobične odgovore na senzorne unose u smislu hiper ili hiporeaktivnosti (Đurić-Zdravković, 2020), beleže se određene situacije vezane za senzorne probleme. Senzacija vezana za defekaciju može biti toliko uznemirujuća da dovodi do zadržavanja stolice i izazivanja konstipacije. Neka deca sa PSA vole konzistenciju ili miris stolice, te će pribeći igri s njom. Isto tako, osećaj čestog ili voljno prekinutog mokrenja može biti prijatan. Okruženje toaleta, uključujući jako osvetljenje i zidove, zvučne efekte (eho, ispiranje i sušači za ruke), kontakt sa hladnom toaletnom daskom i osećaj prskanja vode mogu biti averzivne senzacije za neku decu sa PSA (Cagliani et al., 2021).

Nije neuobičajen slučaj da neke porodice pokušaju da sprovedu obuku u toaletu sa detetom sa PSA, ali da se takav TT završi neuspehom, uznemirenošću i stresnim iskustvom. Vrlo često se TT napušta nakon takvog iskustva, uz prolongiranje vremena za ponovne pokušaje. Roditelji dece sa PSA izjavljivali su da su ponekad dobijali stručne savete o odlaganju sprovođenja TT dok njihovo dete ne bude „mirnije”. Ovaj savet obično služi za ublažavanje stresa roditelja, ali može nepotrebno odložiti obuku (Kroeger & Sorensen, 2010). Često je korisnije ponuditi podršku i razgovarati o početnim koracima. Roditeljima su potrebni tačni saveti, informacije i stalna podrška. Neophodno je zapamtiti da što se više odlaže vreme za sprovođenje TT i uspostavljanje pravilnog ponašanja u ovom domenu, to može dovesti do težeg sprovođenja ovog procesa u budućnosti (Cagliani et al., 2021; Estes et al., 2009).

TT kod dece sa PSA zahteva više vremena i intenzivan bihevioralni pristup (Sutherland et al., 2018). Od svih psihosocijalnih intervencija najefikasnija je kognitivna bihevioralna terapija, koja obuhvata širok spektar različitih tehnika kao što su podsticanje, povlačenje i nestajanje, gašenje, modelovanje, ulančavanje i druge, koje su izvedene iz programa tretmana za decu s PSA (Kroeger-Geopfinger, 2021; Perihan et al., 2021; von Gontard et al., 2022).

Često se ističe važnost ne samo pružanja pozitivnog potkrepljenja za angažovanje u cilnom ponašanju (npr. odgovarajuće mokrenje), već i pružanja potkrepljenja za angažovanje u neophodnim koracima da bi se ciljno ponašanje završilo. To bi značilo da je detetu sa PSA omogućen pristup nekoj željenoj aktivnosti samo da bi sedelo u toaletu (bez obzira na mokrenje ili ne). Na taj način koristi se pozitivno potkrepljenje da bi se izazvalo ciljno ponašanje sedenja u toaletu. Kada dete na odgovarajući način urinira u toalet, dozvoljava mu se da izađe iz toaleta, daje mu se snažna verbalna ili gestualna pohvala (pozitivno potkrepljenje putem socijalne interakcije) i omogućava mu se pristup, na primer, željenoj hrani (pozitivno potkrepljenje putem opipljivog potkrepljivača). Izbegavanje korišćenja averzivnih tehnika i forsiranje

pozitivne paradigme potkrepljenja omogućava postizanje značajnih koraka ka konačnoj urinarnoj kontinenciji (Smith & Chanab, 2016).

Prilikom uspostavljanja TT savetuje se korišćenje strukturiranih vizuelnih rasporeda, uključujući uvedeno vreme za toalet. Ova šema treba da bude dostupna na vidljivom mestu u toaletu i treba da sadrži slikovne korake toaletnog procesa. Smatra se da je uvođenje ovakvog rasporeda poželjno sprovesti što je moguće ranije kada za to već postoje razvojni potencijali, kako bi ta procedura postala deo svakodnevne rutine deteta. U početku treba insistirati da čak i dečaci sede na toaletnoj šolji kako bi mokrenje i defekacija mogli da se odvijaju istovremeno, jer stajanje može podstaći zadržavanje pražnjenja creva. Kod PSA prilikom uspostavljanja TT dozvoljeno je koristiti specifično, ograničeno interesovanje deteta kako se ne bi remetilo minimalno neophodno vreme koje je potrebno provesti u toaletu i kako bi se stvorila pozitivna asocijacija na toalet, sve dok to ne ometa proces realizacije po planiranim koracima. Ukoliko se utvrdi da kod deteta sa PSA postoje averzije ka nekim od toaletnih objekata, preporučuje se prevazilaženje takvih senzacija korišćenjem, na primer, tople daske na toalet šolji ili stavljanjem toaletnog papira u šolju kako zvuk prskanja tečnosti ne bi bio dominantan (von Gontard et al., 2022; Wilde, 2022).

Toaletni trening kod dece sa cerebralnom paralizom

Disfunkcija donjeg urinarnog trakta kod dece sa CP može biti prilično raznolika, te urološke abnormalnosti mogu obuhvatiti spektar od gotovo normalnog mokrenja sa najminimalnijim problemima, do urinarne inkontinencije ili retencije urina (Samijn et al., 2017). Urinarna inkontinencija, enureza i urinarne infekcije češće su kod dece sa CP nego kod dece tipičnog razvoja (Ozturk et al., 2006), a kontrola bešike i creva postiže se u starijem uzrastu nego kod vršnjaka tipičnog razvoja (Samijn et al., 2017). Drugi uobičajeni simptomi su otežano mokrenje, nokturija, noćna enureza, infekcija urinarnog trakta, zadržavanje mokraće i disfunkcija gornjeg urinarnog trakta (Ramachandra & Figueroa, 2020). Čak i kada je uspostavljena dnevna kontinencija, tek se nakon dužeg vremena od tog trenutka postiže noćna kontinencija (Gundogdu et al., 2013).

Faktori koji utiču na učenje veština korišćenja toaleta kod dece sa CP su brojni. Deca sa spastičnom kvadriplegijom i udruženom IO ostvaruju kontinenciju u kasnijem uzrastu i imaju manju verovatnoću da postignu kontinenciju u celosti. Smatra se da spastična kvadriplegija u komorbiditetu sa IO ima veći uticaj na kontinenciju nego bilo koji faktor koji bi delovao samostalno (Ünsal et al., 2009).

Sistem klasifikacije grubih motoričkih funkcija klasifikuje CP u pet nivoa, po težini. Svaki sledeći nivo u rastućem poretку podrazumeva manji stepen samostalnog kretanja i veća ograničenja u tom domenu (Djuric-Zdravkovic et

al., 2021; Palisano et al., 1997). Deca četvrtog i petog nivoa imaju značajno veće šanse da imaju urinarnu inkontinenciju (Jiang et al., 2022; Samijn et al., 2022). Deci sa smanjenom pokretljivošću treba više vremena da stignu do toaleta. Oštećenje manuelnih veština ima za posledicu javljanje poteškoća pri svlačenju garderobe u toaletu. To može biti posebno izazovno budući da je iznenadna potreba za mokrenjem uobičajena u okruženju neurogene hiperaktivnosti detrusora (Žikić i Marković, 2017). Dakle, fizički pristup toaletu može biti glavna prepreka za kontinenciju kod deteta sa ograničenom pokretljivošću. Kada je to izvodljivo, detetovo okruženje treba modifikovati tako da ono može brzo da dođe do toaleta. Od velike koristi su i pomagala za pozicioniranje koja pomažu detetu da sedi ili stoji u toaletu sa odgovarajućom udobnošću, održava ravnotežu i stabilnost u trajanju od nekoliko minuta i učestvuje u procedurama čišćenja. Treba uzeti u obzir mogućnost svlačenja i oblačenja. Korisna je odeća koja se lako skida i kojom se lako rukuje. Mokrenje u određeno vreme, koje omogućava redovne posete toaletu radi voljnog pražnjenja, može biti od pomoći kod neke dece koja nemaju dovoljno urina, ali im je potrebna pomoć pri kretanju (Bernatchez et al., 2017; Veugelers et al., 2010; Wright et al., 2016).

Preporučuje se da bihevioralne intervencije budu individualizovane na osnovu fizičkih ograničenja i kognitivnog statusa deteta. Kod dece sa CP korišćeno je nekoliko intervencija ovog tipa. To su intervencije koje su uključivale desenzibilizaciju (smanjenje stresa u vezi sa toaletnim okruženjem), potkrepljivanje korišćenja toaleta verbalnim podsticanjem, iniciranje spontanog prelaska u toalet, obuku u „suvim pantalonama” (planirano pojačavanje kontinencije bešike, upravljanje nepredviđenim situacijama nakon što je postignuto toaletiranje), zakazana sedenja (prethodno upravljanje zakazanim sedenjima u toaletu uz potkrepljenje, ako spontano nije postignut odlazak u toalet), implementacija pozitivnog potkrepljenja u vidu planova pohvala i nagrađivanja za održavanje nezavisnosti i kontinencije i podučavanje roditelja opštim strategijama ponašanja u vezi sa TT (Millard et al., 2013).

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Toilet training in children with certain developmental disorders

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Mastering toilet training skills in childhood is considered an important developmental determinant. Acquiring proper toilet skills in children with developmental disorders is often delayed. The aim of this paper is to present possible problems that occur in children with intellectual disability, autism spectrum disorder, and cerebral palsy during toilet training, as well as to indicate the interventions that have proven to be effective in this domain. The paper points out the specifics of each of the treated clinical pictures regarding mastering toilet training skills. Behavioral interventions were specially addressed, and it was emphasized that they should be individualized based on the physical limitations and cognitive status of a child. Effective interventions include reinforcement, prompting, extinction, demonstrations, visual schedules, and others derived from treatment programs for children with developmental disorders.

Keywords: toilet training, continence, developmental disorders

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- Ukoliko se referiše na izvor koji ima jednog ili dva autora, uvek se navode njihova prezimena i godina izdanja (npr. Johnson & Stevens, 1999; Popović, 2013; Popović i Jovanović, 2009; Stevens, 2011).
- U slučaju da se prezimena autora navode van zgrade, odnosno u sklopu rečenice, onda se samo godina piše u zagradi (npr. kao što Popović i Jovanović (2009) smatraju...).

- Ukoliko se van zgrade navode prezimena stranih autora, potrebno je ona budu transkribovana, dok je unutar zgrade potrebno navesti njihova prezimena u originalu (npr. ... do čega su Džonson i Stivens došli još pre nešto više od 20 godina (Johnson & Stevens, 1999)).
- Svaki citat (doslovno navođenje delova teksta) treba da bude označen znakovima navoda i praćen informacijom o broju stranice sa koje je citat preuzet (npr. na to ukazuju i brojne studije „koje svedoče o uticaju igranja nasilnih video-igrica na psihološke procese“ (Stojanović, 2019, str. 202)).
- Ukoliko se referiše na izvor koji ima tri i više autora, navodi se samo prezime prvog autora uz prateću oznaku „et al.“ ili „i sar.“ u okviru zgrade, odnosno „i saradnici“ u okviru rečenice (npr. u istraživanju Hjuja i saradnika (Hue et al., 2004)).
- Ukoliko dva autora imaju isto prezime, ispred svakog treba dodati početno slovo imena (npr. A. Babić, 2014; B. Babić, 2012; E. Johnson, 2001; L. Johnson, 1998).
- Ukoliko referenca nema autora, navodi se naziv institucije i godina (npr. WHO, 2020).
- Pri navođenju više referenci redosled se uspostavlja prema abecednom redu, a izvori se odvajaju interpunkcijskim znakom tačka sa zapetom (npr. Bijelić, 2018; Kovač, 2014; Vuletić, 2009). Veći broj referenci istog autora navodi se prema hronologiji, od najstarije ka najnovijoj (npr. Popović, 2015, 2019).

Pravila navođenja referenci u spisku referenci

Reference se navode u skladu sa APA 7 standardima, na kraju rada, u odeljku *Literatura*. Ukoliko je za referencu dostupan DOI broj, nužno je navesti i ovaj podatak. DOI broj se navodi u formatu linka (npr. <https://doi.org/10.5937/specedreh20-32793>). U nastavku slede opis i primeri navođenja uobičajenih izvora.

Članak u časopisu

Po APA 7 standardima, ako rad ima do 20 autora, u spisku referenci se navode imena svih autora. Ukoliko broj autora prelazi 20, potrebno je navesti prvih 19 i trotačkom (...) ih odvojiti od poslednjeg autora.

Primeri navođenja članaka koji imaju do 20 autora:

- Banković, S., Baloš, V., i Brojčin, B. (2019). Forme i funkcije komunikacije kod učenika s poremećajem iz spektra autizma. *Specijalna edukacija i rehabilitacija*, 18(3), 237-271. <https://doi.org/10.5937/specedreh18-23572>
- Winter, K., Spengler, S., Bermpohl, F., Singer, T., & Kanske, P. (2017). Social cognition in aggressive offenders: Impaired empathy, but intact theory of mind. *Scientific Reports*, 7(1), 1-10. <https://doi.org/10.1038/s41598-017-00745-0>

Primer navođenja članka koji ima više od 20 autora:

- Buttrick, N., Choi, H., Wilson, T. D., Oishi, S., Boker, S. M., Gilbert, D. T., Alper, S., Aveyard, M., Cheong, W., Čolić, M. V., Dalgat, I., Doğulu, C., Karabati, S., Kim, E., Knežević, G., Komiya, A., Lacle, C. O., Ambrosio Lage,

C., Lazarević, L. B., . . . Wilks, D. C. (2019). Cross-cultural consistency and relativity in the enjoyment of thinking versus doing. *Journal of Personality and Social Psychology*, 117(5), e71–e83. <https://doi.org/10.1037/pspp0000198>

Knjiga

- Vuković, M. (2019). *Neurodegenerativni poremećaji govora i jezika*. Univerzitet u Beogradu – Fakultet za specijalnu edukaciju i rehabilitaciju.
- Ganz, J. B. (2014). *Aided augmentative communication for individuals with autism spectrum disorders*. Springer. <https://doi.org/10.1007/978-1-4939-0814-1>

Poglavlje u monografiji ili tematskom zborniku

- Grbović, A., Jablan, B., i Stanimirović, D. (2016). Prihvaćenost srednjoškolaca sa oštećenjem vida od strane vršnjaka – razlike u samoproceni učenika i učenica. U A. Jugović, M. Japundža-Milisavljević, i A. Grbović (Ur.), *Socijalna inkluzija dece sa razvojnim smetnjama i problemima u ponašanju* (str. 257-264). Univerzitet u Beogradu – Fakultet za specijalnu edukaciju i rehabilitaciju.
- Boisjoli, J. A., & Matson, J. L. (2010). General methods of assessment. In J. L. Matson (Ed.), *Social behavior and skills in children* (pp. 61-75). Springer. <https://doi.org/10.1007/978-1-4419-0234-4>

Saopštenje sa skupa

- Stakić, Đ. (2019, 22–25 maj). *Model za razrešavanje etičkih dilema i prestupa* [rezime saopštenja sa skupa]. 67. Kongres psihologa Srbije, Zlatibor, Srbija.
- DiGiuseppe, R., Leaf, R., Exner, T., & Robin, M. (1988, September). *The development of a measure of irrational/rational thinking* [Paper presentation]. World Congress of Behavior Therapy, Edinburgh, Scotland.

Ukoliko je saopštenje sa skupa štampano u celini (proceeding), primenjuju se pravila navođenja koja važe za radove u monografijama ili tematskim zbornicima.

Doktorska disertacija

- Đorđević, M. (2016). *Profil pragmatikih sposobnosti odraslih osoba sa intelektualnom ometenošću* [doktorska disertacija, Univerzitet u Beogradu]. NaRDuS. http://nardus.mpn.gov.rs/handle/123456789/4222?locale-attribute=sr_RS
- Clarke, B. D. (2013). *Parents' perceptions and awareness of cyberbullying of children and adolescents* [Doctoral dissertation, Antioch University]. AURA. <https://aura.antioch.edu/cgi/viewcontent.cgi?article=1071&context=etds>

Reference bez autora

- Zakon o maloletnim učiniocima krivičnih dela i krivičnopravnoj zaštiti maloletnih lica, Službeni glasnik Republike Srbije br. 85/05. (2005).
- World Health Organization (WHO). (2018). *Strategic Guidance on accelerating actions for adolescent Health in South-East Asia Region (2018-2022)*. World Health Organization, Regional Office for South-East Asia.

Veb stranica

Primer navođenja veb stranice kada je autor teksta poznat:

- Bil, E. (2020, 10. maj). *Korona virus: zašto bi fizička udaljenost mogla da potraje još neko vreme*. BBC na srpskom. <https://www.bbc.com/serbian/lat/svet-52139608>

Primer navođenja veb stranice kada autor teksta nije poznat:

- World Health Organization. (2020, May 1). *Billions worldwide living with herpes*. <https://www.who.int/news-room/detail/01-05-2020-billions-worldwide-living-with-herpes>

Ako veb stranica nema autora, umesto imena autora navodi se naziv stranice ili rada koji se citira.

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Abbreviations: Full term should be given for each abbreviation when mentioned in the text for the first time, e.g. intellectual disability (ID).

Footnotes: Footnotes should not be used except for comments and additional text.

Referring to sources within the text

For a detailed list of rules applied when referring to sources within the text, please consult the valid version of the Publication Manual of the American Psychological Association (7th ed.), the so-called APA 7 manual (American Psychological Association. (2020). *Publication Manual of the American Psychological Association*

(7th ed.). <https://doi.org/10.1037/0000165-000>). Some of the most important rules are given below.

- If reference is made to a source that has one or two authors, their surnames and year of publication are always given (e.g. Johnson & Stevens, 1999; Popović, 2013; Popović & Jovanović, 2009; Stevens, 2011).
- If the authors' surnames are not written in parentheses, i.e. as part of a sentence, then only the year is written in parentheses (e.g. as Popović and Jovanović (2009) consider ...).
- Each quote (literally quoting parts of the text) should be within quotation marks and followed by information about the page number the quote was taken from (e.g. this is indicated by numerous studies "which confirm the impact of playing violent video games on psychological processes" (Stojanović, 2019, p. 202)).
- If reference is made to a source which has three or more authors, only the surname of the first author is given followed by "et al." within a sentence and year in parentheses (e.g. in the research by Hue et al. (2004)).
- If two authors have the same surname, the first letter of their names should be added in front of each (e.g. A. Babić, 2014; B. Babić, 2012; E. Johnson, 2001; L. Johnson, 1998;).
- If a reference has no author, the name of institution and the year should be provided (e.g. WHO, 2020).
- When referring to multiple sources, the order is alphabetical, and the sources should be separated by a semi-colon (e.g. Bijelić, 2018; Kovač, 2014; Vuletić, 2009). More references by the same author are listed chronologically, from the oldest to the most recent one (e.g. Popović, 2015, 2019).

Rules for listing references

References are given in accordance with APA 7 standards, at the end of the paper, in the *References section*. If a DOI number is available, it is necessary to provide this information as well. The DOI number should be provided as a link (e.g. <https://doi.org/10.5937/specedreh20-32793>). The description and examples of listing common references are given below.

Journal article

According to APA 7 standards, if a paper has up to 20 authors, names of all authors should be listed. If the number of authors exceeds 20, it is necessary to state the first 19 and separate them from the last author with an ellipsis (...).

Examples of listing articles with up to 20 authors:

- Banković, S., Baloš, V., & Brojčin, B. (2019). Forme i funkcije komunikacije kod učenika s poremećajem iz spektra autizma [Forms and functions of communication in a population of students with autism spectrum disorder]. *Specijalna edukacija i rehabilitacija*, 18(3), 237-271. <https://doi.org/10.5937/specedreh18-23572>

- Winter, K., Spengler, S., Bempohl, F., Singer, T., & Kanske, P. (2017). Social cognition in aggressive offenders: Impaired empathy, but intact theory of mind. *Scientific Reports*, 7(1), 1-10. <https://doi.org/10.1038/s41598-017-00745-0>

Example of listing an article with more than 20 authors:

- Buttrick, N., Choi, H., Wilson, T. D., Oishi, S., Boker, S. M., Gilbert, D. T., Alper, S., Aveyard, M., Cheong, W., Čolić, M. V., Dalgard, I., Doğulu, C., Karabati, S., Kim, E., Knežević, G., Komiya, A., Laclé, C. O., Ambrosio Lage, C., Lazarević, L. B., . . . Wilks, D. C. (2019). Cross-cultural consistency and relativity in the enjoyment of thinking versus doing. *Journal of Personality and Social Psychology*, 117(5), e71–e83. <https://doi.org/10.1037/pspp0000198>

Book

- Vuković, M. (2019). *Neurodegenerativni poremećaji govora i jezika* [Neurodegenerative speech and language disorders]. Univerzitet u Beogradu – Fakultet za specijalnu edukaciju i rehabilitaciju.
- Ganz, J. B. (2014). *Aided augmentative communication for individuals with autism spectrum disorders*. Springer. <https://doi.org/10.1007/978-1-4939-0814-1>

Chapter in monographs or thematic collections

- Boisjoli, J. A., & Matson, J. L. (2010). General methods of assessment. In J. L. Matson (Ed.), *Social behavior and skills in children* (pp. 61-75). Springer. <https://doi.org/10.1007/978-1-4419-0234-4>

Conference presentation

- DiGiuseppe, R., Leaf, R., Exner, T., & Robin, M. (1988, September). *The development of a measure of irrational/rational thinking* [Paper presentation]. World Congress of Behavior Therapy, Edinburgh, Scotland.

If the presentation is printed in conference proceedings, citation rules for papers in monographs or thematic collections are applied.

Doctoral dissertation

- Clarke, B. D. (2013). *Parents' perceptions and awareness of cyberbullying of children and adolescents* [Doctoral dissertation, Antioch University]. AURA. <https://aura.antioch.edu/cgi/viewcontent.cgi?article=1071&context=etds>

References with no authors

- Every Student Succeeds Act, 20 U.S.C. § 6301. (2015). <https://www.congress.gov/bill/114th-congress/senate-bill/1177>
- World Health Organization (WHO). (2018). *Strategic Guidance on accelerating actions for adolescent Health in South-East Asia Region (2018-2022)*. World Health Organization, Regional Office for South-East Asia.

Websites

Example of listing a website when the author is known:

- Strauss, E. (2018, September 20). *Parents, stop feeling so guilty about TV time*. CNN Health. <https://edition.cnn.com/2018/09/20/health/screentime-guilt-parenting-strauss/index.html>

Example of listing a website when the author is unknown:

- World Health Organization. (2020, May 1). *Billions worldwide living with herpes*. <https://www.who.int/news-room/detail/01-05-2020-billions-worldwide-living-with-herpes>

If the website does not have an author, the title of the website or paper being cited is provided instead of the author's name.