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State Graduation Exam Results as One of the Indicators of the Success of Secondary Education of Students with Disabilities

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Abstract

Educational systems and forms of knowledge testing and adapting the exam technology in external evaluation exams for students with disabilities differ in European countries. This topic is still not sufficiently scientifically researched in Croatia. The paper analyses the specifics of secondary education of students with disabilities in the Croatian education system with regard to the realisation of the right to equal educational opportunities and to the achieved results in the state graduation exams in the period of four school years, i.e., 2016/2017 to 2020/2021. The analysis aims to determine the level of academic success of students with disabilities compared to the academic success of the general population of Croatian high school students, according to the results achieved in the state graduation exams. The analysed results were achieved in compulsory exams in the summer terms of the state graduation in the period of four school years, i.e., 2016/2017 to 2020/2021. The results point to two conclusions. The first is that regular high school programs, despite continuous improvements, are still not sufficiently accessible to students with disabilities, and the second is that a disability does not in any way limit the success of the student's education if they are provided with an individualised approach.

Key words: *adapted examination technology; inclusive education; secondary education; state graduation exam; students with disabilities.*

Introduction

A sustainable future is based on an educational system that provides every child with a systematic education and enables the acquisition of basic competencies for lifelong learning and qualifications in high-quality educational institutions. Such education

allows students – future employees to direct their careers in accordance with the needs of the economy and the labour market and with their personal preferences and abilities. In achieving these goals, inclusive education policy at all levels of education is essential because inclusive and non-discriminatory attitudes (such as opposing attitudes and beliefs) are formed from an early age (Bouillet, 2019). In inclusive education, attention is focused on developing an educational environment that is comfortable, accessible, safe, and stimulating to all participants, including students with disabilities.

UNESCO (1994) defines inclusive education as a process that takes into account the diversity of needs of all students by increasing participation in learning, cultures, and communities and reducing exclusion within the education system. It involves revising and modifying content, approaches, structures, and strategies with a shared vision that encompasses all students of a particular age range and is aimed at developing the full potential of each student with the ultimate goal of preventing all forms of discrimination and strengthening social cohesion. The principles of inclusive education include opposing any form of discrimination, promoting equality, and ensuring the preconditions for the realisation of equal opportunities for each student are met. Inclusive education aims to identify and remove barriers to quality learning, whether for persons not covered by the educational system or persons who only physically exist in a programme or institution without meaningful learning. The inclusive model of education is the only valid model in democratic societies that respects diversity by ensuring the right of every individual to equal educational opportunities and development (Ortiz Colóni et al., 2018) and affirming the values of social justice and progress (Romero Chávez & Bowen Quijije, 2018). Inclusive curricula, understood as the overall learning experience, relate to diversity proactively instead of a reactive approach that addresses the consequences of the absence of inclusive education and mitigates the effects of exclusionary practices towards some categories of students (O'Donnell, 2016).

Accordingly, inclusive education has a broad and significant social value described as a process of lasting socialisation through increasing the participation of students with disabilities in cultures, curricula, and communities of regular schools. Therefore, a fundamental principle of inclusive education is cooperation and support, according to which all students in a class learn together, regardless of any diversity or ability they possess. Inclusive education includes numerous approaches and methods, in particular 'different educational needs of students, the adaptation of educational outcomes, the adaptation of approaches to learning and teaching, the adaptation of methods and strategies, the adaptation of evaluation of student achievements, support of the school's support staff, training and involvement of teaching assistants, and mutual interaction and inclusion of diversity at the level of educational practice of the entire community to which the student with disabilities belongs' (Drandić & Lazarić, 2018, as cited in Drandić & Radetić Paić, 2020, p. 153)

The right to equal educational opportunities for all students is defined by several international documents such as the *UN Universal Declaration of Human Rights* (1948), the *UN Convention on the Rights of the Child* (1989), the *UN Convention on the Rights*

of Persons with Disabilities (2006), and the 17 UN Sustainable Development Goals by 2030 (2015), which envisage, among other things, the ensuring of inclusive, just, and high-quality education and lifelong learning for all. However, in a document called Global Education Strategy 2019 – 2030 (2019), UNICEF states that at least 175 million children of preschool age and 262 million children of primary and secondary school age (one in five) are still not involved in any institutional form of education. The vision of the document is that every child learns, which is intended to be achieved by accomplishing three fundamental goals:

- equal access to education
- an improved learning experience and skills development for all
- improved learning in crises and adverse circumstances.

The Croatian education policy is also oriented toward these goals, so the *National Development Strategy by 2030* (Official Gazette, No. 13/21, 5.2. Strategic objective 2 Educated and employed people) envisages the implementation of reform processes:

- to create equal pedagogical conditions for the realisation of educational goals
- to respect the right to education under equal conditions
- for the inclusion of all in education
- for the continuous professional development of direct carriers of educational work, support staff, and head teachers
- for stronger communication between all participants.

Therefore, the regulations governing the education system and the educational practices based on them are expected to prevent educational inequalities that are considered to be the answers to unequal life opportunities and reduced opportunities for individuals to use different social, economic, and cultural goods (Felouzis & Charmillot, 2013; Gross et al., 2016; Bloome et al., 2018). This means that the conditions in the educational environment must correspond to the individual strengths, interests, and learning needs of each student, including students with disabilities.

There are still numerous barriers to inclusive education in the education system, such as cultural segregation, discrimination, and differences in educational opportunities. However, decades have passed since the consensus on the importance and characteristics of inclusive education and inclusive values have been widely accepted (Bove & Sharmahd, 2020). These barriers are present at all levels of education, and this paper is aimed at analysing some aspects of the inclusion of students with disabilities in secondary education. The article analyses the specifics of secondary education of students with disabilities in the Croatian education system with regard to the realisation of the right to equal educational opportunities and to the achieved results in the state graduation exams in the period of four school years, i.e., 2016/2017 to 2020/2021. The analysis aims to determine the level of academic success of students with disabilities compared to the academic success of the general population of Croatian high school students, according to the results achieved in the state graduation exams.

Throughout the paper, the term *students with disabilities* refers to the students who exercise the right to adapted examination technology in the state graduation exam according to Article 21 of the Ordinance on Taking the State Graduation Exam (Official Gazette, 01/2013, 41/2019, 127/2019, 55/2020 and 53/2021). These include students with developmental disabilities, students with learning disabilities, students with behavioural disorders and emotional problems, and students with cultural and linguistic difficulties.

Theoretical starting points

Parveva et al. (2009) define national knowledge evaluation as nationally-guided, i.e., state-level standardised testing and central preparation of examinations. Procedures for content preparation, implementation of examinations, assessment of achievements, and the interpretation and use of results are centrally prescribed. In addition, all students have to be provided with the maximum possible equal conditions. The state graduation exam is a summative external assessment procedure that has been carried out in the Republic of Croatia since the 2009/2010 school year. State graduation examinations in general education subjects are conducted throughout the country in a standardised manner, simultaneously, and under equal conditions and criteria for all students, and are divided into compulsory and elective examinations. Examinations in Croatian Language, Mathematics, and the primary foreign language are compulsory, and it is possible to take them at a higher (A) and basic (B) level, depending on the student's choice. Students who are taught in the language and script of national minorities take the exam in the language of the national minority in which they are taught along with the Croatian Language exam, as part of the compulsory part of the state graduation. The elective part consists of examinations at a uniform level that students choose according to their wishes and the university requirements they wish to attend. Students of grammar school programs (gymnasia) complete their secondary education by passing the compulsory part of the state graduation. State graduation exams can also be taken by students of vocational and artistic programs that last a minimum of four years, and they serve exclusively as a prerequisite for continuing their education at the higher education level. Their secondary education ends with the preparation and defence of their graduation paper or graduation project at their school. It follows that the compulsory part of the state graduation for students of grammar school programs has a simultaneous certification (output) function that completes secondary education and a selection (input) function as one of the conditions for admission to higher education institutions. On the other hand, for students coming from vocational programs, the compulsory part has a selection function exclusively, which allows them access to higher education (Primary and Secondary School Education Act, 2008; Ordinance on Taking the State Graduation Exam, 2013).

Educational systems, forms of knowledge assessment, and adaptation of exam technology for students with disabilities differ in European countries (Bejaković, 2007; Parveva et al., 2009), and participation of students with disabilities in national

knowledge evaluations and alternative forms of testing are the subject of numerous world studies and debates. Most of them are in the United States (Michel, 2010). On the other hand, this topic in Croatia is still not sufficiently scientifically researched.

Students with disabilities, under Article 21 of the Ordinance on Taking the State Graduation Exam, have the right to have the examination technology, i.e., examination material and examination procedures adjusted. It follows that the state graduation exam cannot be adjusted at the cognitive level, i.e., it is not possible to simplify it for the needs of students with reduced intellectual abilities. State graduation is one particular aspect of the overall schooling of students that depends on numerous factors. However, it is an important indicator of adopting learning outcomes for which education is ultimately intended because "secondary education, in fact, contains the key to independent living and economic well-being in adulthood" (Velki & Romstein, 2018, p. 11.).

Students with disabilities take the state graduation exam according to *Instructions for Adapting Examination Technology in State Graduation Examinations* (2010), which, in addition to the Ordinance on Taking the State Graduation Exam (Official Gazette, 01/2013, 41/2019, 127/2019, 55/2020, and 53/2021) is the basis for exercising their rights. In the *Instructions for Adapting Examination Technology in State Graduation Examinations,* it is defined that candidates with sixty per cent and greater physical impairment (disability) should be allowed direct admission to study programs at higher education institutions outside the regular quota, provided that they pass the minimum number of points necessary for enrollment. Completed state graduation exams, which are a condition for admission to certain study programs, are considered to meet this requirement. Students prove their disability status with the Certificate of Disability obtained from the Croatian Pension Insurance Institute.

It is known that only eight years of primary education is mandatory in Croatia, although primary and secondary education is regulated by the same regulation, i.e. the Primary and Secondary School Education Act (Official Gazette, 87/2008). In addition to the fundamental law, the education of students with disabilities is further regulated by:

- Ordinance on Primary and Secondary Education of Students with Developmental Difficulties (Official Gazette, 24/2015)
- Ordinance on the Process of Assessing the Psychophysical State of Children and Students and the Structure of Expert Committees (Official Gazette, 67/2014, and 63/2020)
- Ordinance on the Manner, Procedures, and Elements of Evaluation of Primary and Secondary School Students (Official Gazette, 112/2010, 82/2019, 43/2020, and 100/2021)
- Ordinance on the Number of Students in Regular and Combined Class Units and Educational Groups in Primary Schools (Official Gazette, 124/2009 and 73/2010)
- Ordinance on Teaching Assistants and Professional Communication Intermediaries (Official Gazette, 102/2018, 59/2019, and 22/2020)
- Textbooks and Other Educational Material for Primary and Secondary Schools Act (Official Gazette, 116/2018).

Enrollment in the first grade of secondary school is regulated by the Ordinance on the Elements and Criteria for the Selection of Candidates for Enrolment into the First Grade of Secondary School (Official Gazette, 49/2015 and 47/2017), according to which all students who have completed primary education have the right to enrol in the first grade of secondary school under equal conditions within the number of enrollment places determined by the decision on enrollment. This decision is made for each school year by the Minister of Education if by the beginning of the school year, in which they enrol in the first grade of secondary school, students are at most 17 years old. By way of derogation, with the approval of the school board, a student up to the age of 18 may be enrolled in the first grade of secondary school, and with the approval of the Ministry of Education, a candidate older than 18 can enrol. Article 23 of the Ordinance on the Elements and Criteria for the Selection of Candidates for Enrolment into the First Grade of Secondary School prescribes the procedure of evaluating the success of candidates with developmental disabilities, i.e., students who have completed primary school under an adjusted education program. The candidate's disability status is proven by the decision on the adapted education program issued by the administrative authority in the county in charge of education, e.g., the City Office for Education of the City of Zagreb, and the expert opinion of the Career Guidance Service of the Croatian Employment Service. This opinion determines the abilities and motivation of students with disabilities for at least three appropriate education programmes (vocational – with the designation of programme, artistic, or grammar school) and is derived from the expert opinion of the competent school physician who had monitored the candidate during their previous education. However, under the List of Health Requirements of Secondary Education Programs for the Purpose of Enrollment in the First Grade of Secondary School (Ministry of Science and Education, 2015[1]), each secondary school program has defined necessary health requirements and functional abilities that make many students with disabilities have an extremely narrow choice of education programs.

The right to enrol in an education program is exercised by as many students with developmental disabilities as possible given the National Pedagogical Standard of the Secondary Education System (Official Gazette, 63/2008 and 90/2010), and they are ranked on separate rankings if they satisfy in the examination of abilities and talents in schools where this is a requirement for enrollment.

Therefore, secondary schools are obligated to enable students with disabilities to enrol and to ensure that their programs are reasonably adapted to meet the students' individual needs and capabilities, as well as to provide the necessary assistance and effective individualised support measures in environments that contribute most to their

[1] The document is available at https://mzo.gov.hr/UserDocsImages/dokumenti/Dokumenti-ZakonskiPodzakonskiAkti/Jedinstveni_%20popis_%20zdravstvenih_%20kontraindikacija_%20srednjo_%C5_%A1kolskih_%20obrazovnih_%20programa_%20u_%20svrhu_%20upisa_%20u_%20I._%20razred_%20srednje_%20_%C5_%A1kole_%20-_%20MZOS_%202015..pdf.

academic and social development (*Convention on the Rights of Persons with Disabilities*, 2006). However, the practice of some high schools to prevent the enrolment of children with disabilities has been observed, with the excuse that they are not ready and do not know how to provide the necessary support to these students (2020 Annual Report of the Ombudswoman for Persons with Disabilities Office, 2021). In particular, the insufficient number of experts required to work with students with disabilities, which too often leads to discriminatory practices in educating students with disabilities, is highlighted. The complexity of the necessary specific teaching methods aimed at students' individual learning characteristics, interests, abilities, and educational needs is often absent, and students do not have adequate support for learning in regular classes (Kudek Mirošević & Bukvić, 2017).

Education in institutions where only educational programs for students with disabilities are implemented is segregation, according to the UN Committee on the Rights of Persons with Disabilities. In her reports, the Ombudswoman for Persons with Disabilities (e.g., the 2015 Annual Report of the Ombudswoman for Persons with Disabilities Office, 2016) points out that the fact that part of the responsibility for the education of students with disabilities remains in the social welfare system leads to several difficulties. The current legal provisions place students with disabilities who are educated under different educational programs within social welfare institutions in an unequal position compared to students who are educated in educational institutions under the jurisdiction of the Ministry of Science and Education, i.e., in regular secondary schools founded by the Republic of Croatia or a unit of local and regional self-government. Students with developmental disabilities, precisely because of their developmental difficulties, regardless of their success or even motivation, often have a limited choice of occupations; therefore, in this way, they are allowed to enrol in the educational program for which they have the appropriate abilities. In this context, we consider, among other things, a key document – the Assessment and Opinion of the Career Guidance Service – it is vital for determining the continuation of education of students with disabilities because it directs it towards education for those professions in which they could be successful according to their skills and abilities.

Several complaints we have received are related to students who were educated in primary school under a regular program with content adjustment, and then they were automatically sent to secondary school for two- and three-year programs." (2018 Annual Report of the Ombudswoman for Persons with Disabilities Office, 2019, p. 135).

In order to achieve a higher level of inclusiveness in secondary education, it is essential to individualise the teaching approach, provide additional professional support, and adjust the way of organising teaching, testing, and assessing students' knowledge and progress (Velki & Romstein, 2018). The program should enable reaching at least the minimum goal and knowledge standards of the class in which the student is involved. These are components of education that are not provided in many educational institutions, which significantly contributes to the survival of the practice of secondary education

of students with disabilities in a special system, and is reflected in their performance at the state graduation exams and employment opportunities that would be in line with the interests, abilities, and capabilities of persons with disabilities.

In this regard, Popović and Buljevac (2016) report that as many as 60 % of persons with disabilities have not finished primary school or have only completed primary school. Furthermore, very few students with disabilities continue to post-secondary or higher education after completing their secondary education, as after everything they have endured, they have to fight prejudice in the labour market. Symeonidou (2018), based on an analysis of recent literature, concludes that the likelihood of enrolling students with disabilities in higher education programs increases when students have completed secondary education in regular schools. Bukvić (2018) cites research results that show that students with disabilities in regular schools are marginalised, play a less active role in social and class activities than their peers, and are less involved in daily activities as they get older. The author points to the prevailing low expectations regarding the educational achievement of students with developmental disabilities, and thus they become more vulnerable to the effects that result from the deterministic thinking about their limitations. This vulnerability is particularly pronounced when teachers believe that students with disabilities need special instruction for which they have not been trained, which is the dominant conclusion of many studies on teachers' attitudes towards inclusion (Sharma et al., 2008; Bouillet et al., 2017).

Inclusive education implies that high academic standards and full inclusion in the curriculum content are the norms for all students, including students with significant disabilities (Idol, 2006). "From research to research, there are big differences in what is considered inclusion, and the only common factor is the placement of students in a regular class, regardless of the approach. Therefore, the authors (...) believe that inclusive programs are often a sort of compromise for what is 'special' in special education" (Igrić, 2015, p. 81).

The question is how the described specifics of secondary education of students with disabilities in the Croatian education system reflect on the success of these students in the state graduation exams, which this paper explores.

This paper analyses the data on the forms and ways of secondary education of students with disabilities and the data on the performance of students who exercise the right to adjusted exam technology (AET) on the state graduation exam in five school years (from 2016/2017 to 2020/2021) based on the data from the Ministry of Science and Education (e-Base for Schools, Vol. 1 and 3) and the internal data of the National Centre for External Evaluation of Education (SRDM), which is responsible for the implementation of the state graduation exams[2] (National Centre for External

[2] The National Centre for External Evaluation of Education, during the implementation of the first national examinations for first-year students of secondary school programs in the school year 2005/2006, has acknowledged the needs of students with developmental disabilities.

Evaluation of Education Act, 2004). The analysis aims to answer research questions realised through the following tasks:

- to identify trends in secondary education of students with disabilities in the five-year period
- to determine the proportion of students with disabilities who are studying in different secondary education programs
- to determine whether there is a difference in the average performance of students who have achieved the right to AET in mandatory state graduation exams compared to the average performance of the population of students without disabilities.

Hypothesis: H0 – there are no differences in the performance of compulsory subjects tests at the state graduation exam between students with AET and other students.

Methodology

The primary content of this analysis includes compulsory exams implemented in the summer examination period of the state graduation in 2016/2017, 2017/2018, 2018/2019, 2019/2020, and 2020/2021 school years. These are exams in Croatian Language, Mathematics, and Foreign Language, predominantly English. The analysis of the results obtained by implementing the exams in the summer examination period was selected due to the largest number of applicants in that period. The analysis refers to students with the right to AET, i.e., students with disabilities who are included in the Croatian education system in a five-year period and whose share in the general population of students in the Republic of Croatia is continuously growing despite the continuous decline in the number of students in secondary education in the general population (Table 1). The results of the applicants in the state graduation exam who were regular students of the fourth (or fifth) years of vocational and grammar school programs in the Republic of Croatia were taken into account.

Table 1
Students with developmental disabilities (DD) in the education system from 2016/2017 to 2020/2021

School year	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
Total number of students in the education system	480 397	472 323	464 581	460 692	457 774
Total number of students with DD in the education system	25 651	29 932	29 981	30 451	30 705
Percentage of students with DD in the education system	5.34	6.34	6.45	6.61	6.70
Total number of students in secondary schools	158 974	151 932	145 707	143 680	143 739

School year	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
Total number of students with DD in secondary schools	3310	6331	5640	5789	5569
Percentage of students with DD in secondary schools	2.08	4.17	3.87	4.03	3.87
Number of students with AET on the state graduation exams	539	560	607	667	737

Source: e-Base for Schools of the Ministry of Science and Education, Vol. 1 and internal documents of the National Centre for External Evaluation of Education

The specificities of secondary education of students with developmental disabilities were analysed in terms of the forms and types of educational programs in which these students participate according to individual secondary school years and in terms of the performance of students with disabilities in the state graduation exams in relation to the performance of other applicants in the analysed examination periods (compulsory subjects). The differences in the results achieved in the state graduation exams were checked by t-test.

Results

Secondary education of students with disabilities in the Republic of Croatia

With the increase in the number of secondary school students with developmental disabilities included in the regular secondary education system, the proportion of students attending individual secondary school years increases (Table 2.). The data align with the trends in the representation of persons with disabilities in the general population of the Republic of Croatia, as there is a slight increase in the proportion of children with major developmental disabilities aged 0 to 19 in the total number of persons with disabilities. In 2017, this share was 8 % (Štefanić et al., 2018), and in 2019, it was 9 % (Benjak, 2019).

Most students with disabilities enrol in two- and three-year secondary school programs, so the number of students with disabilities attending the fourth year of regular secondary school in the 2020/2021 school year is still about 40 % lower than the number of students of lower years. If we look at the number of Year 4 students in the 2020/2021 school year, i.e., the number of students who enrolled in Year 1 in 2017/2018 in relation to the total number of Year 1 students in the same year, then the share of students in four-year secondary school education is only 30 %. This conclusion is confirmed by the data shown in Table 3 related to the number of students with developmental disabilities in grammar school and vocational programs. The number

of students with disabilities enrolling in five-year vocational programs is negligible (0 to 2 students per school year in the analysed period).

Table 2

Students with developmental disabilities (DD) in the secondary education system from 2016/2017 to 2020/2021 by year

School year	Year 1		Year 2		Year 3		Year 4	
	Total	Regular schools	Total	Regular schools	Total	Regular schools	Total	Regular schools
2016/2017	1229	1083	998	854	898	708	185	134
2017/2018	2180	2052	1956	1813	1710	1551	492	441
2018/2019	1292	1210	1958	1844	1842	1720	547	503
2019/2020	1574	1427	1549	1435	1972	1837	692	661
2020/2021	*1623*	*1549*	*1646*	*1566*	*1595*	*1521*	*700*	*667*

Source: e-Base for Schools of the Ministry of Science and Education, Vol. 1

Table 3

Students with developmental disabilities (DD) in the education system from the school year 2016/2017 to 2020/2021: grammar school program and vocational four-year and five-year programs

School year	Year 1		Year 2		Year 3		Year 4	
	GSP*	VP**	GSP	VP	GSP	VP	GSP	VP
2016/2017	35	341	30	211	28	199	16	118
2017/2018	96	567	82	492	70	392	69	343
2018/2019	55	361	97	524	83	483	75	403
2019/2020	74	785	81	452	106	527	91	529
2020/2021	71	502	77	556	88	493	106	567

Source: e-Base for Schools of the Ministry of Science and Education, Vol. 1

*GSP = grammar school program; **VP = vocational program

From the data shown in Table 3, it turns out that less than 15 % of students with disabilities enrol in grammar school programs, while more than 80 % of those students enrol in vocational programs. Since only 5.4 % of persons with disabilities have intellectual disabilities (Benjak, 2019), this data raises the question of equal educational opportunities for students with disabilities compared to their typically developed peers regarding their secondary education.

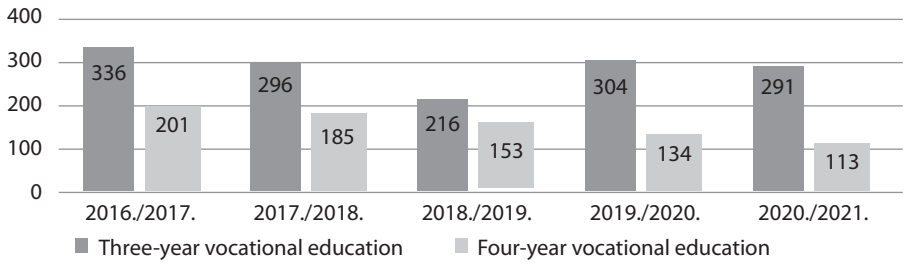

Figure 1 Number of students in special institutions for secondary vocational education of students with disabilities (Source: e-Base for Schools of the Ministry of Science and Education, Vol. 1)

Given the differences in the number of students with developmental disabilities and the number of students who enrol in specific years in regular secondary schools, there is still a dual education system in the Republic of Croatia, i.e., a system of secondary schools where only students with disabilities are educated, and regular schools. There are 14[3] such institutions offering three-year vocational education and four institutions offering four-year vocational education. Figure 1 presents the data on the number of students who attended these programmes in the five-year period analysed.

Analysis of the data shown in Figure 1 points to the conclusion that the number of students attending special schools for secondary education of students with disabilities is continuously decreasing. However, three-year vocational programs predominate, in which the number of students remains almost stable for general labour. After three years of education, it is not possible to take the state graduation exam and continue their education, and these students' employment opportunities after their education are minimal.

If we add to this a significantly smaller number of students with disabilities attending Year 4 of secondary school (Table 2) compared to the number of students enrolling in Year 1 in regular schools, the success of secondary education of students with disabilities remains questionable.

Performance of students with disabilities in state graduation exams

This paper analyses the results (grades) of students eligible for the AET (students with developmental disabilities without students with intellectual disabilities, students with specific learning disabilities, students with mental health difficulties, and chronically ill students) in the state graduation exams in compulsory subjects in the summer examination period, in total during the five summer examination periods of the state graduation exams from the school year 2016/2017 to 2020/2021 compared to the results (grades) of the average population.

The results shown in Table 4 show that students who have achieved the right to AET in the observed five-year period are twice as likely to choose to take the Mathematics exam at the basic level (LEVEL B) compared to the higher level (LEVEL A). On the other hand, slightly more students who qualify for AET in the Croatian and English exams took the higher level. In the population of students without AET, a higher proportion of students chose the basic level of the Mathematics exam and a higher level of exams in Croatian and English.

[3] Until 2019, there were 13 such schools, and in 2019, another educational institution for three-year vocational education of students with developmental disabilities began to operate.

Table 4

Share of students who have taken the mandatory state graduation exams in the summer examination periods from 2016/17 to 2020/21 according to whether they exercise the right to adapted examination technology

Student group	Mathematics	Croatian Language	English Language
	N	N	N
Students with AET, total	3063	3084	2965
Other students, total	133081	133053	128126
LEVEL A, students with AET	920 (30 %)	1923 (62 %)	1727 (58 %)
LEVEL B, students with AET	2143 (70 %)	1161 (38 %)	1238 (42 %)
LEVEL A, other students	45045 (34 %)	92128 (70 %)	81372 (64 %)
LEVEL B, other students	88036 (66 %)	40925 (30 %)	46754 (36 %)

Table 5

Descriptive statistics of results (grades) according to the analysed compulsory summer exams of the state graduation in the summer examination periods from 2016/17 to 2020/21 for students with the right to AET and the student population without AET

		N	arithmetic mean	standard deviation	standard error
MATHEMATICS A (higher level)	Students with AET	920	2.61	1.102	0.036
	Other students	45045	2.64	1.052	0.005
MATHEMATICS B (basic level)	Students with AET	2143	2.48	1.007	0.022
	Other students	88036	2.54	1.004	0.003
CROATIAN LANGUAGE A (higher level)	Students with AET	1923	2.89	0.944	0.022
	Other students	92128	2.98	0.936	0.003
CROATIAN LANGUAGE B (basic level)	Students with AET	1161	2.37	0.883	0.026
	Other students	40925	2.38	0.949	0.005
ENGLISH LANGUAGE A (higher level)	Students with AET	1727	3.86	0.948	0.023
	Other students	81372	3.78	0.927	0.003
ENGLISH LANGUAGE B (basic level)	Students with AET	1238	2.96	1.354	0.038
	Other students	46754	2.99	1.249	0.006

Source: SRDM (Central Register of the State Graduation Exam)

From the data presented in Table 5, it follows that the average grades of both analysed groups of students range from "sufficient" (Croatian Language and Mathematics for students with AET at the basic level) through "good" (English Language at the basic level, Mathematics at the higher level, and Croatian Language at the higher level), to "very good" (English Language at the higher level).

The differences in student achievement (grades) in the analysed compulsory exams between the students with adjusted examination technology and the student population without the adjustment were checked by t-test, and the results presented in Table 6 were obtained.

Table 6

Differences between the average grade of all students with AET and those without AET in the five cycles of the summer examination period of the state graduation from 2017 to 2021

	t	df	p	difference of the arithmetic mean	standard error
MAT A	-0.831	953.525	0.406	-0.030	0.037
MAT B	-2.512	2246.991	0.012	-0.055	0.022
CRO A	-4.354	94049	0.000	-0.094	0.022
CRO B	-0.340	42084	0.734	-0.010	0.028
ENG A	3.321	1796.709	0.001	0.077	0.023
ENG B	-0.690	47990	0.490	-0.025	0.036

Source: SRDM (Central Register of the State Graduation Exam)

In the results of the Mathematics A (higher level) exam, there is no significant difference in the grade average for students with AET from students without AET ($p>0.01$).

In the results of the Mathematics B (basic level) exam, there is no significant difference in the grade average for students with AET from students without AET ($p>0.01$).

In the results of the Croatian Language A (higher level) exam, the difference in average grade between students with AET and those without AET is statistically significant ($p<0.01$). On average, students with AET scored slightly lower than students without AET.

In the results of the Croatian Language B (basic level) exam, there is no significant difference in the grade average for students with AET from students without AET ($p>0.01$).

In the results of the English Language A (higher level) exam, the difference in the grade average between students with AET and those without AET is statistically significant ($p<0.01$). On average, students with AET scored slightly higher than students without AET. However, as in the Croatian Language exam at a higher level, the value difference of arithmetic means is only 0.08.

In the English Language B (basic level) exam results, there is no significant difference in the grade average for students with AET from students without AET ($p>0.01$).

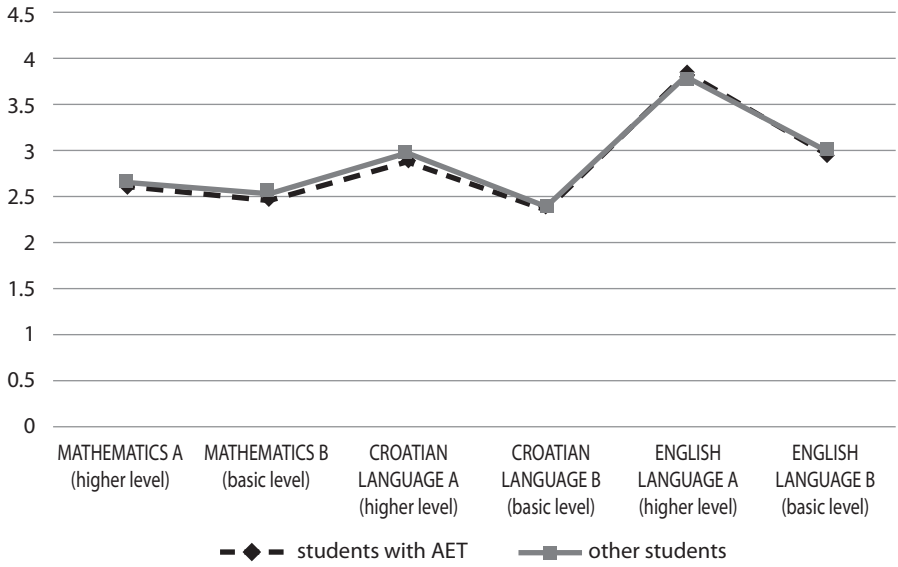

Figure 2 *The difference in average exam grades at the state graduation between students with AET and students without disabilities.*

Discussion and conclusion

The analysis of the specifics of secondary education of students with disabilities in the Republic of Croatia and their results achieved in the state graduation exams led to interesting and dichotomous results. On the one hand, it was found that many students with disabilities still face barriers that weaken the opportunities for their equal participation in secondary school programs based on equal opportunities to their standard-developed peers, although positive developments are observed. This conclusion stems from the fact that every year more and more students with disabilities enrol in regular secondary school programs, but there are still very few of these students in grammar school programs or four- and five-year vocational programs. This circumstance has an adverse effect on the enrolment of students with disabilities in higher education programmes and, thus, on later employment in high-quality workplaces. Since only 5 % of people with disabilities have reduced intellectual abilities, it is inevitable that many people with disabilities do not realise their potential and do not get employed in workplaces that align with their abilities and interests.

Given that inclusive education implies creating conditions in an environment that fosters the development of each student, it is evident that progress needs to be made in this regard. First of all, it is crucial to improve the career guidance process of students with disabilities and ensure that assessing secondary school programs' compliance with students' abilities and interests is not reduced to diagnoses. Instead, a holistic approach

is needed that would result in a quality assessment of the impact of the developmental disability on learning abilities and capabilities. Furthermore, when a student enrols in a secondary school program, the institution has to provide individualised ways of work for each student. This individualisation should in no way lead to lowering criteria and expecting lower academic achievement but should instead be aimed at finding appropriate forms of support for each student.

The importance of this step is also indicated by the analysis of the performance of students who exercise the right to adjusted examination technology in the state graduation exams in relation to the general population. It was found that students, with the appropriate adjustment on four compulsory exams, on average, achieved the same results as their peers, on one compulsory exam a slightly better, and on one compulsory exam a marginally worse average score. Typically, adjustments are made at the level of perception and requirements such as (Instructions for the Adjustment of Examination Technology in the State Graduation Exams, 2010):

- appropriate layout, font, and printing of exam materials
- adapting the exam to Braille
- enlarged print on A3 format
- writing essays on a computer
- instructions in black print to students with impaired hearing read to other students by the Examination Officer
- extended writing time
- exemption from part of the examination (e.g., exemption from the listening comprehension part of the Foreign Language exam granted to students with significant hearing impairment or loss)
- personal assistant

These adjustments should also be applied consistently in regular schools while preserving the quality of learning and teaching. Compliance with the regulations governing the right of students with disabilities to equal opportunities would significantly expand their educational opportunities. In addition, the existing model of adapting examination technology can be improved, following future, more detailed research of the results presented in this paper. Finally, it is possible to conclude that disabilities do not limit the success of students' education if they are given an individualised approach and knowledge assessment aligned with their abilities.

References

Bejaković, P. (2007). Obrazovanje u zemljama članicama OECD-a i Hrvatskoj. *Revija za socijalnu politiku*, 14, 415–439. https://doi.org/10.3935/rsp.v14i3.725

Benjak, T. (2019). *Izvješće o osobama s invaliditetom u Republici Hrvatskoj*. Zagreb: Croatian Institute of Public Health.

Bloome, D., Dyer, S., Zhou, Educational Inequality, Educational Expansion and Intergenerational Income Persistence in the United States. *American Sociological Review*. 2018;83(6), 1215–1253. https://doi.org/10.1177/0003122418809374

Bouillet, D. (2019). *Inkluzivno obrazovanje – odabrane teme*. Zagreb: Školska knjiga.

Bouillet, D., Domović, V., Ivančević, S. (2017). Uvjerenja studenata učiteljskog studija i zaposlenih učitelja o inkluzivnoj praksi. *Hrvatska revija za rehabilitacijska istraživanja*, 53(2), 32-46. https://doi.org/10.31299/hrri.53.2.3

Bukvić, Z. (2018). Zaokupljenost školom učenika s teškoćama. *Doctoral dissertation.* Zagreb: Faculty of Teacher Education, University of Zagreb.

Chiara Bove, Ch., Sharmahd, N. (2020). Beyond invisibility. Welcoming children and families with migrant and refugee background in ECEC settings. *European Early Childhood Education Research Journal*, 28(1), 1–9. https://doi.org/10.1080/1350293X.2020.1707940

Drandić, D., Radetić Paić, M. (2020). Suradnja u inkluzivnim školama: kako pomoćnici u nastavi procjenjuju njihovu suradnju s učiteljima u razredu?. *Ljetopis socijalnog rada*, 27(1), 151–178. https://doi.org/10.3935/ljsr.v27i1.287

Felouzis, G., Samuel Charmillot, S. (2013). School tracking and educational inequality: a comparison of 12 education systems in Switzerland. *Comparative Education*, 49(2), 181–205. https://doi.org/10.1080/03050068.2012.706032

Gross, Ch., Meyer, H. D., Hadjar, A. (2016). Theorising the impact of education systems on ineqalities. In A. Hadjar, Ch. Gross (Eds.), *Education systems and inequalities – International comparisons* (pp. 11–32). Bristol: Policy Press. https://doi.org/10.2307/j.ctt1t892m0.7

Idol, L. (2006). Toward inclusion of special education students in general education: A program evaluation of eight schools. *Remedial and Special Education*, 27(2), 77–94. https://doi.org/10.1177/07419325060270020601

Igrić, LJ. (2015). *Osnove edukacijskog uključivanja:* škola *po mjeri svakog djeteta je moguća.* Zagreb: Faculty of Education and Rehabilitation: Školska knjiga.

Kudek Mirošević, J., Bukvić, Z. (2017). Differences in the provision of individualised educational support to students in different grades. *Hrvatska revija za rehabilitacijska istraživanja*, 53 (Supplement), 265-277. https://hrcak.srce.hr/193759

Mitchell, D (2010). *Education that fits: Review of international trends in the education of students with special educational needs*. http://www.educationcounts.govt.nz/publications/special_education/education-that-fits-review-of-international-trends-in-the-education-of-students-with-special-educational-needs.

National Development Strategy by 2030. *Official Gazette*, no. 13/21.

O'Donnell, V. L. (2016). Organisational change and development towards inclusive higher education. *Journal of Applied Research in Higher Education*, 8(1), 101–118. https://doi.org/10.1108/JARHE-04-2014-0051

Ortiz Colón, A. M., Agreda Montoro, M., Colmenero Ruiz, M. J. (2018). Toward inclusive higher education in a global context. *Sustainability*, 10, 2670. https://doi.org/10.3390/su10082670

Parveva, T., De Coster, I., Noorani, S. (2009). *National Testing of Pupils in Europe: Objectives, Organisation and Use of Results*. European Commission: Education, Audiovisual and Culture Executive Agency. https://eric.ed.gov/?id=ED539374

Popović, S., Buljevac, M. (2016). Prekid srednjoškolskog obrazovanja mladih s teškoćama u razvoju. *Ljetopis socijalnog rada, 23*(3), 463–488. https://doi.org/10.3935/ljsr.v23i3.108

Ordinance on the Number of Students in Regular and Combined Class Units and Educational Groups in Primary Schools *Official Gazette*, no. 124/09 and 73/10.

Ordinance on the Elements and Criteria for the Selection of Candidates for Enrolment into 1st Grade of Secondary School *Official Gazette*, no. 49/15 and 47/17.

Ordinance on the Manner, Procedures, and Elements of Evaluation of Primary and Secondary School Students *Official Gazette*, no. 112/10., 82/19., 43/20, and 100/21.

Ordinance on Primary and Secondary Education of Students with Developmental Difficulties. *Official Gazette*, no. 24/15

Ordinance on Taking the State Graduation Exam – consolidated text *Official Gazette*, no. 01/13, 41/19, 127/19, 55/20, and 53/21.

Ordinance on Teaching Assistants and Professional Communication Intermediaries. *Official Gazette*, no. 102/18, 59/19, and 22/20.

Ordinance on the Process of Assessing the Psychophysical State of Children and Students and the Structure of Expert Committees. *Official Gazette*, no. 67/14 and 63/20.

Republic of Croatia, Ombudswoman for Persons with Disabilities (2016). *2015 Annual Report.*

Republic of Croatia, Ombudswoman for Persons with Disabilities (2021). *2020 Annual Report.*

Romero Chávez, S. A., Bowen Quijije, K. K. (2018). A Challenge for Teachers of Inclusive Higher Education: Faculty of Humanistic and Social Sciences in UTM. *International Research Journal of Management, IT & Social Sciences*, 5(2), 129–135. https://doi.org/10.21744/irjmis.v5i2.628

Sharma, U., Forlin, C., Loreman, T. (2008). Impact of training on pre-service teachers' attitudes and concerns about inclusive education and sentiments about persons with disabilities. *Disability and Society*, 23(7), 773–785. https://doi.org/10.1080/09687590802469271

Symeonidou, S. (2018). *Evidence of the Link between Inclusive Education and Social Inclusion: Final Summary Report*. Odense: ed European Agency for Special Needs and Inclusive Education.

Štefančić, V., Benjak, T., Ivanić, M. (2018). Izjednačavanje mogućnosti i razvoj registra osoba s invaliditetom u Republici Hrvatskoj. *Acta medica Croatica, 72*(2), 189–197.

United Nations (1948). Universal Declaration of Human Rights. Decision on the Publication of the Universal Declaration of Human Rights, *Official Gazette*, no. 12/09.

United Nations (1989). Convention on the Rights of the Child. Official Gazette – international agreements 15/90, *Official Gazette*, no. 12/93, 20/97.

United Nations (2006). Convention on the Rights of Persons with Disabilities, Official Gazette, No. 6/07, 3/08, 5/08.

United Nations (2015). Sustainable Development Goals, http://www.un.org/sustainabledevelopment/sustainable-development-goals/.

UNESCO (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Retrieved from https://www.european-agency.org/sites/default/files/salamanca-statementand-framework.pdf.

UNICEF (2019). *A World Ready to Learn: Global Report on Pre-primary Education*. New York: United Nations Children's Fund. Retrieved from www.unicef.org.

Instructions for adjusting examination technology in the state graduation exam (2010). Zagreb: National Centre for External Evaluation of Education.

Velki, T., Romstein, K., (Eds.) (2018). *Handbook for Working with Students with Developmental Disabilities in Secondary Schools*. Osijek: Faculty of Educational Sciences, Josip Juraj Strossmayer University of Osijek.

Primary and Secondary School Education Act, Official Gazette, No. 87/08, 86/09, 92/10, 105/10, 90/11, 5/12, 16/12, 86/12, 126/12, 94/13, 152/14, 07/17, 68/18, 98/19, 64/20.

Textbooks and Other Educational Material for Primary and Secondary Schools Act, *Official Gazette*, no. 116/18.

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Rezultati državne mature kao jedan od pokazatelja uspješnosti srednjoškolskoga obrazovanja učenika s teškoćama

Sažetak

Obrazovni sustavi te oblici provjeravanja znanja i prilagodbe ispitne tehnologije u ispitima vanjskoga vrednovanja za učenike s teškoćama razlikuju se u europskim zemljama. Ova tema u Hrvatskoj još uvijek nije dovoljno znanstveno istražena. U radu se analiziraju specifičnosti srednjoškolskoga obrazovanja učenika s teškoćama u hrvatskome obrazovnom sustavu s obzirom na ostvarivanje prava na jednake obrazovne mogućnosti i s obzirom na ostvarene rezultate u ispitima državne mature od 2016./2017. do 2020./2021. školske godine. Cilj je analize prema rezultatima ostvarenima u ispitima državne mature ustanoviti uspješnost obrazovanja učenika s teškoćama u usporedbi s uspješnosti obrazovanja opće populacije hrvatskih srednjoškolaca. Analizirani rezultati postignuti su u obveznim ispitima u ljetnim rokovima državne mature od 2016./2017. do 2020./2021. školske godine. Rezultati upućuju na dva zaključka. Prvi je da redovni srednjoškolski programi, unatoč kontinuiranim poboljšanjima, još uvijek nisu dovoljno dostupni učenicima s teškoćama, a drugi je da teškoća ni na koji način ne ograničava uspješnost obrazovanja učenika ako im se omogući individualiziran pristup.

Ključne riječi: *državna matura; inkluzivno obrazovanje; prilagodba ispitne tehnologije; srednjoškolsko obrazovanje; učenici s teškoćama.*

Uvod

Trajno održiva budućnost temelji se na odgojno-obrazovnom sustavu koji će svakom djetetu pružiti sustavno obrazovanje i omogućiti stjecanje temeljnih kompetencija za cjeloživotno učenje te stjecanje kvalifikacija u kvalitetnim odgojno-obrazovnim ustanovama. Takvo obrazovanje učenicima – budućim zaposlenicima omogućuje usmjeravanje karijere u skladu s potrebama gospodarstva i tržišta rada te s osobnim sklonostima i sposobnostima. U ostvarivanju tih ciljeva izuzetno je značajna inkluzivna obrazovna politika na svim razinama obrazovanja jer se inkluzivni kao i nediskriminacijski stavovi, poput tomu suprotstavljenih stavova i uvjerenja, formiraju

od najranije dobi (Bouillet, 2019). U inkluzivnom je obrazovanju pozornost usmjerena na razvoj obrazovnoga okružja koje je ugodno, pristupačno, sigurno i poticajno svim sudionicima uključujući i učenike s teškoćama u razvoju.

UNESCO (1994) inkluzivno obrazovanje definira kao proces u kojem se uzima u obzir različitost potreba svih učenika povećanjem sudjelovanja u učenju, kulturama i zajednicama te smanjenjem isključenosti u okviru sustava obrazovanja. Ono podrazumijeva izmjene i modifikacije sadržaja, pristupa, struktura i strategija sa zajedničkom vizijom koja obuhvaća sve učenike odgovarajuće dobi, a usmjereno je prema razvoju punoga potencijala svakog učenika s ultimativnim ciljem sprečavanja svih oblika diskriminacije i jačanja socijalne kohezije. Pretpostavke su inkluzivnoga obrazovanja suprotstavljanje bilo kakvoj vrsti diskriminacije, promicanje ravnopravnosti i osiguravanje pretpostavki za ostvarivanje jednakih mogućnosti svakoga učenika. Ono je usmjereno prema prepoznavanju i uklanjanju prepreka kvalitetnom učenju, neovisno o tome radi li se o osobama koje nisu obuhvaćene obrazovnim sustavom ili o osobama koje samo fizički postoje u nekom programu i/ili ustanovi, bez smislenoga učenja. Inkluzivni model obrazovanja jedini je valjani model u demokratskim društvima koji uvažava različitosti tako da svakom pojedincu osigurava pravo na jednake obrazovne mogućnosti i razvoj (Ortiz Colóni sur., 2018) afirmirajući vrijednosti socijalne pravde i napretka (Romero Chávez i Bowen Quijije, 2018). Inkluzivni se kurikuli, shvaćeni kao cjelokupno iskustvo učenja, prema različitostima odnose proaktivno, za razliku od reaktivnoga pristupa saniranju posljedica izostanka inkluzivnoga obrazovanja i ublažavanju posljedica isključujućih praksi prema nekim kategorijama učenika (O'Donnell, 2016).

Prema tome, inkluzivno obrazovanje ima široku i značajnu društvenu vrijednost koja se opisuje kao proces trajne socijalizacije kroz povećanje sudjelovanja učenika s teškoćama u kulturama, kurikulima i zajednicama redovnih škola. Stoga je temeljno načelo inkluzivnoga obrazovanja međusobna suradnja i podrška prema kojoj svi učenici u razredu zajedno uče, bez obzira na bilo koju različitost ili sposobnost koju posjeduju. Inkluzivno obrazovanje uključuje mnogobrojne pristupe i metode, a posebice (Drandić i Lazarić, 2018, prema Drandić i Radetić Paić, 2020, str. 153.) „različite odgojno-obrazovne potrebe učenika, prilagodbu odgojno-obrazovnih ishoda, prilagodbu pristupa učenju i poučavanju, prilagodbu metoda i strategija, prilagodbu vrednovanja učeničkih postignuća, podršku stručnoga tima, osposobljavanje i uključivanje pomoćnika u nastavi te međusobnu interakciju i inkluziju različitosti na razini odgojno-obrazovne prakse cjelokupne zajednice kojoj učenik s teškoćama pripada".

Pravo na jednake obrazovne mogućnosti svih učenika definirano je brojnim međunarodnim dokumentima kao što su *Opća povelja UN-a o ljudskim pravima* (1948), *Konvencija UN-a o pravima djeteta* (1989), *Konvencija UN-a o pravima osoba s invaliditetom* (2006) i 17 ciljeva UN-a održivoga razvoja do 2030. godine (2015) koji, između ostaloga, predviđaju osiguravanje inkluzivnoga, pravednoga i kvalitetnoag obrazovanja i cjeloživotnoga učenja za sve. Međutim, UNICEF u dokumentu *Globalna*

strategija obrazovanja 2019. – 2030. (2019) navodi da najmanje 175 milijuna djece predškolske dobi i 262 milijuna djece osnovnoškolske i srednjoškolske dobi (jedan od pet) još uvijek nije uključeno u institucionalni oblik odgoja i obrazovanja. Vizija je dokumenta da svako dijete uči, što se namjerava postići ostvarivanjem triju temeljnih ciljeva:

- ravnopravan pristup obrazovanju
- unaprijeđeno iskustvo učenja i razvoj vještina za sve
- unaprijeđeno učenje u kriznim situacijama i nepovoljnim okolnostima.

Tim ciljevima usmjerena je i hrvatska obrazovna politika pa *Nacionalna razvojna strategija do 2030. godine* (Narodne novine, broj 13/21., 5.2. Strateški cilj 2. Obrazovani i zaposleni ljudi) predviđa provedbu reformskih procesa radi:

- stvaranja jednakih pedagoških uvjeta za realizaciju odgojno-obrazovnih ciljeva
- poštovanja prava na odgoj i obrazovanje pod jednakim uvjetima
- uključenosti svih u odgoj i obrazovanje
- stalnoga profesionalnog razvoja neposrednih nositelja odgojno-obrazovnoga rada, stručnih suradnika i ravnatelja
- čvršće komunikacije svih dionika.

Stoga se od propisa koji uređuju obrazovni sustav i na njima temeljene obrazovne prakse očekuje prevencija obrazovnih nejednakosti koje se smatraju odgovorima za nejednake životne mogućnosti i smanjenu mogućnost pojedinaca za korištenje različitih društvenih, ekonomskih i kulturnih dobara (Felouzis i Charmillot, 2013; Gross, Meyer i Hadjar, 2016; Bloome, Dyer i Zhou, 2018). To znači da uvjeti u obrazovnom okružju moraju odgovarati individualnim snagama, interesima i potrebama u učenju svakoga učenika, uključujući i učenike s teškoćama.

U obrazovnom sustavu još uvijek egzistiraju brojne prepreke inkluzivnom obrazovanju, kao što su kulturalna segregacija, diskriminacija i opstojnost razlika u obrazovnim mogućnostima, iako je od postizanja konsenzusa o važnosti i karakteristikama inkluzivnoga obrazovanja do danas prošlo nekoliko desetljeća, a inkluzivne su vrijednosti široko deklarativno prihvaćene (Bove i Sharmahd, 2020). Te su prepreke prisutne na svim razinama obrazovanja, a u ovomu se radu usmjerava na analizu nekih aspekata inkluzivnosti srednjoškolskoga obrazovanja učenika s teškoćama. U radu se analiziraju specifičnosti srednjoškolskoga obrazovanja učenika s teškoćama u hrvatskome obrazovnom sustavu s obzirom na ostvarivanje prava na jednake obrazovne mogućnosti i s obzirom na ostvarene rezultate u ispitima državne mature od 2016./2017. do 2019./2020. školske godine. Cilj je analize prema rezultatima ostvarenima u ispitima državne mature ustanoviti uspješnost obrazovanja učenika s teškoćama u usporedbi s uspješnosti obrazovanja opće populacije hrvatskih srednjoškolaca.

U radu se pojam *učenici s teškoćama* odnosi na učenike koji ostvaruju pravo na prilagodbu ispitne tehnologije na ispitima državne mature prema članku 21. Pravilnika o polaganju ispita državne mature (Narodne novine, 01/2013, 41/2019, 127/2019,

55/2020 i 53/2021). To su učenici s teškoćama u razvoju, učenici s teškoćama učenja, poremećajima u ponašanju i emocionalnim problemima, učenici s teškoćama uvjetovanim kulturalnim i jezičnim čimbenicima.

Teorijska polazišta

Prema Parveva, De Coster i Noorani (2009) nacionalno provjeravanje znanja definira se kao nacionalno vođeno, tj. na državnoj razini standardizirano ispitivanje i centralno sastavljanje ispita. Centralno su propisani postupci za pripremu sadržaja, provedbu ispitivanja i ocjenjivanje postignuća te interpretaciju i korištenje rezultata, a svim učenicima moraju biti osigurani maksimalno mogući jednaki uvjeti. Državna matura postupak je sumativnoga vanjskog vrednovanja koji se u Republici Hrvatskoj provodi od školske godine 2009./2010. Ispiti državne mature iz općeobrazovnih predmeta provode se u cijeloj državi na standardizirani način u isto vrijeme i pod jednakim uvjetima i kriterijima za sve učenike, a dijele se na obvezne i izborne ispite. Obvezni su ispiti iz Hrvatskog jezika, Matematike i prvoga stranog jezika, a prema izboru pristupnika moguće ih je polagati na višoj (A) i osnovnoj (B) razini. Učenici koji se školuju na jeziku i pismu nacionalnih manjina u sklopu ispita obveznoga dijela državne mature uz ispit iz Hrvatskog jezika polažu ispit iz jezika nacionalne manjine na kojemu se školuju. Izborni dio čine ispiti na jedinstvenoj razini koje pristupnici biraju u skladu sa svojim željama i izborima učilišta koje žele pohađati. Učenici gimnazijskih programa srednje obrazovanje završavaju polaganjem obveznog dijela državne mature. Ispite državne mature mogu polagati i učenici strukovnih i umjetničkih programa koji traju minimalno četiri godine, a oni im služe isključivo kao preduvjet nastavka obrazovanja na visokoškolskoj razini. Njihovo srednjoškolsko obrazovanje završava izradom i obranom završnoga rada u školi. Iz svega proizlazi da obvezni dio državne mature za učenike gimnazijskih programa ima istodobnu certifikacijsku (izlaznu) funkciju kojom se završava srednjoškolsko obrazovanje i selekcijsku (ulaznu) funkciju kao jedan od uvjeta za upis na visoka učilišta. S druge strane, za učenike iz strukovnih programa obvezni dio ima isključivo selekcijsku funkciju, čime im se omogućuje pristup visokom obrazovanju (Zakon o odgoju i obrazovanju u osnovnoj i srednjoj školi, 2008; Pravilnik o polaganju državne mature, 2013).

Obrazovni sustavi te oblici provjeravanja znanja i prilagodbe ispitne tehnologije za učenike s teškoćama razlikuju se u europskim zemljama (Bejaković, 2007; Parveva, De Coster i Noorani, 2009), a sudjelovanje učenika s teškoćama u nacionalnim provjerama znanja i alternativnim oblicima ispitivanja predmet su brojnih svjetskih istraživanja i rasprava. Najviše ih je u SAD-u (Michel, 2010). S druge strane, ova tema u Hrvatskoj još uvijek nije dovoljno znanstveno istražena.

Učenici s teškoćama prema članku 21. Pravilnika o polaganju državne mature ostvaruju pravo na prilagodbu ispitne tehnologije (prilagodbu ispitnih materijala i ispitnih postupaka). Iz toga proizlazi da ispit državne mature nije moguće prilagoditi na spoznajnoj razini, tj. nije ga moguće pojednostaviti za potrebe učenika sniženih

intelektualnih sposobnosti. Državna je matura jedan izdvojeni aspekt ukupnoga školovanja učenika koji ovisi o brojnim čimbenicima, ali je važan pokazatelj usvojenosti ishoda učenja kojima je obrazovanje u konačnici namijenjeno jer „srednjoškolsko obrazovanje zapravo sadrži ključ za samostalan život i ekonomsku dobrobit u odrasloj dobi" (Velki i Romstein, 2018, str. 11.).

Učenici s teškoćama ispit državne mature polažu prema *Uputama za prilagodbu ispitne tehnologije na ispitima državne mature* (2010) koje su uz Pravilnik o polaganju državne mature (Narodne novine, 01/2013, 41/2019, 127/2019, 55/2020 i 53/2021) temelj za ostvarivanje njihovih prava. U *Uputama za prilagodbu ispitne tehnologije na ispitima državne mature* definirano je da je kandidatima sa šezdesetpostotnim i većim tjelesnim oštećenjem (invaliditetom) potrebno omogućiti izravan upis na studijske programe na visokim učilištima izvan redovne kvote pod uvjetom da prijeđu razredbeni (bodovni) prag. Prijeđenim pragom smatraju se položeni ispiti državne mature koji su uvjet za upis na pojedine studijske programe. Svoj status učenici dokazuju rješenjem o invaliditetu Hrvatskoga zavoda za mirovinsko osiguranje.

Poznato je da je u Hrvatskoj obvezno samo osmogodišnje osnovno obrazovanje, iako je osnovnoškolsko i srednjoškolsko obrazovanje regulirano istim propisom, tj. Zakonom o odgoju i obrazovanju u osnovnoj i srednjoj školi (Narodne novine, 87/2008). Uz temeljni zakon obrazovanje učenika s teškoćama u razvoju dodatno je regulirano:

- Pravilnikom o osnovnoškolskom i srednjoškolskom odgoju i obrazovanju učenika s teškoćama u razvoju (Narodne novine, 24/2015)
- Pravilnikom o postupku utvrđivanja psihofizičkoga stanja djeteta, učenika te sastavu stručnih povjerenstava (Narodne novine, 67/2014 i 63/2020)
- Pravilnikom o načinima, postupcima i elementima vrednovanja učenika u osnovnim i srednjim školama (Narodne novine, 112/2010, 82/2019, 43/2020 i 100/2021)
- Pravilnikom o broju učenika u redovitom i kombiniranom razrednom odjelu i odgojno-obrazovnoj skupini u osnovnoj školi (Narodne novine, 124/2009 i 73/2010)
- Pravilnikom o pomoćnicima u nastavi i stručnim komunikacijskim posrednicima (Narodne novine, 102/2018, 59/2019 i 22/2020)
- Zakonom o udžbenicima i drugim obrazovnim materijalima za osnovnu i srednju školu (Narodne novine, 116/2018).

Upisi u prvi razred srednje škole regulirani su Pravilnikom o elementima i kriterijima za izbor kandidata za upis u I. razred srednje škole (Narodne novine, 49/2015 i 47/2017) prema kojem pravo upisa u prvi razred srednje škole pod jednakim uvjetima imaju svi učenici nakon završenoga osnovnog obrazovanja u okviru broja upisnih mjesta utvrđenih odlukom o upisu. Tu odluku za svaku školsku godinu donosi ministar nadležan za obrazovanje ako do početka školske godine, u kojoj upisuju prvi razred srednje škole, navršavaju najviše 17 godina. Iznimno, uz odobrenje školskoga odbora, u prvi razred srednje škole može se upisati učenik do navršenih 18 godina, a uz odobrenje ministarstva nadležnoga za obrazovanje i kandidat stariji od 18 godina. Pravilnik o elementima i kriterijima za izbor kandidata za upis u I. razred srednje

škole u članku 23. propisuje postupak vrednovanja uspjeha kandidata s teškoćama u razvoju, tj. učenika koji su osnovnu školu završili prema primjerenom programu obrazovanja. Status kandidata s teškoćama u razvoju dokazuje se rješenjem Ureda o primjerenom programu obrazovanja i stručnim mišljenjem Službe za profesionalno usmjeravanje Hrvatskoga zavoda za zapošljavanje. Tim se mišljenjem utvrđuju sposobnosti i motivacija učenika s teškoćama u razvoju za najmanje tri primjerena programa obrazovanja (strukovnoga – s oznakom programa, umjetničkoga i/ili gimnazijskoga), a proizlazi iz stručnoga mišljenja nadležnoga školskog liječnika koji je pratio kandidata tijekom prethodnoga obrazovanja. Međutim, sukladno Jedinstvenom popisu zdravstvenih zahtjeva srednjoškolskih obrazovnih programa u svrhu upisa u I. razred srednje škole (Ministarstvo znanosti i obrazovanja, 2015[1]) svaki srednjoškolski program ima definirane potrebne zdravstvene zahtjeve i funkcionalne sposobnosti zbog kojih mnogi učenici s teškoćama u razvoju imaju izuzetno sužen izbor programa u kojima se mogu školovati.

Pravo upisa u neki program obrazovanja ostvaruje onoliko učenika s teškoćama u razvoju koliko je moguće s obzirom na Državni pedagoški standard srednjoškolskoga sustava odgoja i obrazovanja (Narodne novine, 63/2008 i 90/2010), a rangiraju se na zasebnim ljestvicama poretka ako zadovolje na ispitu sposobnosti i darovitosti u školama u kojima je to uvjet za upis.

Prema tome, obveza je srednjih škola omogućiti učenicima s teškoćama u razvoju upis i osigurati im razumnu prilagodbu u skladu s individualnim potrebama i mogućnostima, potrebnu pomoć i učinkovite individualizirane mjere potpore u okružjima koja najviše pridonose njihovom akademskom i socijalnom razvoju (*Konvencija o pravima osoba s invaliditetom*, 2006). Međutim, zamijećena je dosadašnja praksa nekih srednjih škola da priječe upisivanje djece s teškoćama u razvoju uz izgovor da nisu spremni i da ne znaju tim učenicima osigurati potrebnu podršku (Izvješće pravobraniteljice za osobe s invaliditetom za 2020. godinu, 2021). Posebno se ističe nedostatan broj potrebnih stručnjaka u radu s učenicima s teškoćama u razvoju koji prečesto dovodi do diskriminirajuće prakse obrazovanja učenika s teškoćama. Kompleksnost potrebnih specifičnih metoda poučavanja usmjerenih individualnim osobinama učenja, interesima, sposobnostima i obrazovnim potrebama učenika vrlo često izostaje te učenici nemaju primjerenu potporu za učenje u redovnom razredu (Kudek Mirošević i Bukvić, 2017).

Obrazovanje u ustanovama u kojima se provode samo odgojno-obrazovni programi za učenike s teškoćama prema mišljenju Odbora UN-a za prava osoba s invaliditetom predstavlja segregaciju. Pravobraniteljica za osobe s invaliditetom u svojim izvještajima (npr. Izvješće pravobraniteljice za osobe s invaliditetom za 2015. godinu, 2016) ističe kako činjenica da dio nadležnosti nad obrazovanjem učenika s teškoćama u razvoju

[1] Dokument je dostupan na https://mzo.gov.hr/UserDocsImages/dokumenti/Dokumenti-ZakonskiPodzakonskiAkti/Jedinstveni %20popis %20zdravstvenih %20kontraindikacija %20srednjo %C5 %A1kolskih %20obrazovnih %20programa %20u %20svrhu %20upisa %20u %20I. %20razred %20srednje %20 %C5 %A1kole %20- %20MZOS %202015..pdf.

ostaje u sustavu socijalne skrbi, dovodi do niza poteškoća. Sadašnja zakonska rješenja stavljaju u neravnopravan položaj učenike s teškoćama u razvoju koji se školuju prema različitim obrazovnim programima unutar ustanova socijalne skrbi u odnosu na učenike koji se obrazuju u ustanovama obrazovanja u nadležnosti Ministarstva znanosti i obrazovanja, tj. u redovnim srednjim školama kojima je osnivač Republika Hrvatska ili jedinica lokalne i područne (regionalne) samouprave. „Učenici s teškoćama u razvoju

upravo zbog svojih razvojnih teškoća, neovisno o svojem uspjehu ili čak motivaciji, često imaju

ograničen izbor zanimanja, stoga im se na ovaj način omogućava da upišu onaj obrazovni program za koji imaju odgovarajuće sposobnosti. U tom kontekstu smatramo, uz ostalo, ključnim dokumentom Procjenu i mišljenje Službe za profesionalno usmjeravanje – ona je ključna za određivanje nastavka obrazovanja učenika s teškoćama, jer ga usmjerava prema školovanju za ona zanimanja u kojima bi prema svojim sposobnostima i mogućnostima mogao biti uspješan.

Više pritužbi koje smo zaprimili odnosi se upravo na učenike koji su se u osnovnoj školi obrazovali po redovnom programu s prilagodbom sadržaja, a onda se automatizmom u srednju školu upućuju u dvogodišnje i trogodišnje programe." (Izvješće pravobraniteljice za osobe s invaliditetom za 2018. godinu, 2019, str. 135).

Da bi se ostvarila veća razina inkluzivnosti srednjoškolskoga obrazovanja, važno je individualizirati pristup poučavanja učenika, osigurati dodatnu stručnu pomoć i prilagoditi način organizacije nastave, provjeravanja te ocjenjivanja znanja i napredovanja učenika (Velki i Romstein, 2018). Program treba omogućiti da se dosegnu barem minimalni cilj i standardi znanja razreda u koji je učenik uključen. Radi se o komponentama obrazovanja koje u mnogim odgojno-obrazovnim ustanovama nisu osigurane, što znatno pridonosi opstojnosti prakse srednjoškolskoga obrazovanja učenika s teškoćama u razvoju u posebnom sustavu, a odražava se na njihovu uspješnost na državnoj maturi i mogućnosti zapošljavanja koje bi bile usklađene s interesima, sposobnostima i mogućnostima osoba s invaliditetom.

S tim u vezi, Popović i Buljevac (2016) izvještavaju da čak 60 % osoba s invaliditetom ima nezavršenu ili samo završenu osnovnu školu, pri čemu vrlo mali broj nakon završenoga srednjoškolskog obrazovanja nastavlja s višim ili visokim obrazovanjem, kada se nakon svega moraju boriti s predrasudama na tržištu rada. Symeonidou (2018) na temelju rezultata analize recentne literature zaključuje da se vjerojatnost upisa učenika s teškoćama u programe visokoškolskoga obrazovanja povećava kada su učenici srednjoškolsko obrazovanje završili u redovnim školama. Bukvić (2018) navodi rezultate istraživanja koji pokazuju da su učenici s teškoćama u razvoju u redovnim školama marginalizirani, imaju manje aktivnu ulogu u društvenim i razrednim aktivnostima od svojih vršnjaka te su rjeđe uključeni u svakodnevne aktivnosti kako postaju stariji. Autor ukazuje na prevladavajuća niska očekivanja u odnosu na obrazovna postignuća učenika s teškoćama u razvoju, pa oni postaju ranjiviji na efekte koji proizlaze iz deterministčkoga mišljenja o njihovim ograničenjima. Ta

je ranjivost posebno izražena kad učitelji vjeruju da učenici s teškoćama u razvoju trebaju posebno poučavanje za što oni nisu osposobljeni, a što je dominantan zaključak mnogih istraživanja o stavovima učitelja prema inkluziji (Sharma, Forlin i Loreman, 2008; Bouillet, Domović i Ivančević, 2017).

Inkluzivno obrazovanje podrazumijeva da visoki akademski standardi i potpuno uključivanje u kurikulske sadržaje budu norma za sve učenike uključujući i učenike sa značajnijim teškoćama (Idol, 2006). „Od istraživanja do istraživanja velike su razlike u tome što se smatra inkluzijom, a zajednički im je samo smještaj učenika u redoviti razred, bez obzira na to kakav je pristup. Stoga autori (…) drže da su inkluzivni programi često neki kompromis za ono što je 'specijalno' u specijalnoj edukaciji" (Igrić, 2015, str. 81.).

Pitanje je kako se opisane specifičnosti srednjoškolskoga obrazovanja učenika s teškoćama u hrvatskome obrazovnom sustavu odražavaju na uspješnost tih učenika u ispitima državne mature, čemu je posvećen ovaj rad.

U ovom su radu analizirani podatci o oblicima i načinima srednjoškolskoga obrazovanja učenika s teškoćama u razvoju te podatci o uspješnosti učenika koji ostvaruju pravo na prilagodbu ispitne tehnologije (PIT) na ispitima državne mature u pet školskih godina (od 2016./2017. do 2020./2021.) na temelju podataka Ministarstva znanosti i obrazovanja (E-Školski rudnik, Vol. 1. i 3.) i internih podataka Nacionalnog centra za vanjsko vrednovanje obrazovanja (SRDM) koji je nadležan za provedbu državne mature[2] (Zakon o Nacionalnom centru za vanjsko vrednovanje obrazovanja, 2004). Analizom se želi odgovoriti na istraživačka pitanja, realizirana kroz sljedeće zadatke:

- ustanoviti trendove u srednjoškolskom obrazovanju učenika s teškoćama u petogodišnjem razdoblju
- utvrditi udio učenika s teškoćama u razvoju koji se školuju u različitim programima srednjoškolskoga obrazovanja
- utvrditi postoji li razlika u prosječnoj uspješnosti učenika koji su ostvarili pravo na PIT u obveznim ispitima državne mature u odnosu na prosječnu uspješnost učeničke populacije bez teškoća.

Postavljena je hipoteza: H0 - Ne postoje razlike u uspješnosti polaganja obveznih predmeta na državnoj maturi između učenika s PIT i ostalih učenika.

Metoda

Temeljni su sadržaj ove analize obvezni ispiti primijenjeni u ljetnim rokovima državne mature u školskim godinama 2016./2017., 2017./2018., 2018./2019., 2019./2020 i 2020./2021. To su ispiti iz Hrvatskog jezika, Matematike i stranoga jezika, dominantno Engleskog jezika. Analiza rezultata dobivenih primjenom ispita u ljetnom roku odabrana je zbog najveće brojnosti pristupnika u tom roku. Analiza se odnosi na

[2] Nacionalni centar za vanjsko vrednovanje obrazovanja već je pri provedbi prvih nacionalnih ispita za učenike prvih razreda gimnazijskih programa u školskoj godini 2005./2006. uvažavao potrebe učenika s teškoćama u razvoju.

učenike s pravom na PIT, odnosno učenike s teškoćama koji su uključeni u hrvatski obrazovni sustav u petogodišnjem razdoblju, a čiji udio u općoj populaciji učenika u Republici Hrvatskoj kontinuirano raste unatoč kontinuiranom padu broja učenika u srednjoškolskom obrazovanju u općoj populaciji (Tablica 1.). Uzeti su u obzir rezultati pristupnika u ispitima državne mature koji su u određenoj školskoj godini bili redovni učenici četvrtih (ili petih) strukovnih i gimnazijskih programa u Republici Hrvatskoj.

Tablica 1.
Učenici s teškoćama u razvoju (TUR) u obrazovnom sustavu od 2016./2017. do 2020./2021. školske godine

Školska godina	2016./2017.	2017./2018.	2018./2019.	2019./2020.	2020./2021.
Ukupan broj učenika u obrazovnom sustavu	480 397	472 323	464 581	460 692	457 774
Ukupan broj učenika s TUR u obrazovnom sustavu	25 651	29 932	29 981	30 451	30 705
Postotak učenika s TUR u obrazovnom sustavu	5,34	6,34	6,45	6,61	6,70
Ukupan broj učenika u srednjim školama	158 974	151 932	145 707	143 680	143 739
Ukupan broj učenika s TUR u srednjim školama	3310	6331	5640	5789	5569
Postotak učenika s TUR u srednjim školama	2,08	4,17	3,87	4,03	3,87
Broj učenika s PIT na ispitima državne mature	539	560	607	667	737

Izvor: E-Školski rudnik Ministarstva znanosti i obrazovanja, Vol. 1 i interni dokumenti Nacionalnog centra za vanjsko vrednovanje obrazovanja

Specifičnosti srednjoškolskoga obrazovanja učenika s teškoćama u razvoju analizirane su s obzirom na oblike i vrstu obrazovnoga programa u kojem sudjeluju ti učenici prema pojedinim razredima srednje škole i s obzirom na uspješnost učenika s teškoćama u ispitima državne mature u odnosu na uspješnost ostalih pristupnika u analiziranim ispitnim rokovima (obvezni predmeti). Razlike u postignutim rezultatima u ispitima državne mature provjeravane su t-testom.

Rezultati

Srednjoškolsko obrazovanje učenika s teškoćama u razvoju u Republici Hrvatskoj

S rastom broja srednjoškolskih učenika s teškoćama u razvoju uključenih u redovni sustav srednjoškolskoga obrazovanja raste udio učenika koji pohađaju pojedine razrede srednje škole (Tablica 2.). Podatci su u skladu s kretanjima zastupljenosti osoba s invaliditetom u općoj populaciji Republike Hrvatske jer se bilježi lagani porast udjela djece s većim teškoćama u razvoju u dobi od 0 do 19 godina u ukupnom broju osoba s invaliditetom. Taj je udio 2017. godine iznosio 8 % (Štefanić, Benjak i Ivanić, 2018), a 2019. godine 9 % (Benjak, 2019).

Tablica 2.

Većina učenika s teškoćama u razvoju upisuje dvogodišnje i trogodišnje srednjoškolske programe pa je broj učenika s teškoćama u razvoju koji pohađaju četvrti razred redovne srednje škole u školskoj godini 2020./2021. još uvijek oko 40 % manji u usporedbi s brojem učenika nižih razreda. Ako promatramo broj učenika četvrtih razreda u školskoj godini 2020./2021., dakle broj učenika koji su u 2017./2018. školskoj godini upisali prvi razred u odnosu na ukupan broj učenika prvog razreda iste godine, tada je udio učenika u četverogodišnjem srednjoškolskom obrazovanju tek 30 %. Ovaj zaključak potvrđuju podatci prikazani u Tablici 3. koji se odnose na broj učenika s teškoćama u razvoju u gimnazijskim i strukovnim programima. Broj je učenika s teškoćama u razvoju koji upisuju petogodišnje strukovne programe zanemariv (0 do 2 učenika po školskoj godini u analiziranom razdoblju).

Tablica 3.

Iz podataka prikazanih u Tablici 3. proizlazi da gimnazijske programe upisuje manje od 15 % učenika s teškoćama u razvoju, dok strukovne programe upisuje više od 80 % tih učenika. Budući da svega 5,4 % osoba s invaliditetom ima intelektualne teškoće (Benjak, 2019), taj podatak otvara pitanje jednakih obrazovnih mogućnosti učenika s teškoćama u razvoju u odnosu na njihove tipično razvijene vršnjake, kada je riječ o njihovu srednjoškolskom obrazovanju.

Slika 1.

S obzirom na razlike u broju učenika s teškoćama u razvoju i broju učenika koji upisuju pojedine razrede u redovnim srednjim školama, u Republici Hrvatskoj i dalje egzistira dvojni obrazovni sustav, tj. sustav srednjih škola u kojima se obrazuju samo učenici s teškoćama i redovne škole. Ukupno je 14[3] takvih ustanova koje nude

[3] Do 2019. godine djelovalo je 13 takvih škola, a 2019. godine počela je s radom još jedna odgojno-obrazovna ustanova za trogodišnje strukovno obrazovanje učenika s teškoćama u razvoju.

strukovno trogodišnje obrazovanje i četiri ustanove koje nude četverogodišnje strukovno obrazovanje. Na Slici 1. prikazani su podatci o broju učenika koji su pohađali te programe u analiziranome petogodišnjem razdoblju.

Analiza podataka prikazanih na Slici 1. upućuje na zaključak da se broj učenika koji pohađaju posebne škole za srednjoškolsko obrazovanje učenika s teškoćama u razvoju kontinuirano smanjuje. Međutim, prevladavaju trogodišnji strukovni programi u kojima broj učenika ostaje gotovo stabilan i to za pomoćna zanimanja. Nakon trogodišnjega obrazovanja nije moguće pristupiti ispitu državne mature i nastaviti školovanje, a mogućnosti zapošljavanja tih učenika po završetku obrazovanja su izuzetno male.

Dodamo li tomu izrazito manji broj učenika s teškoćama u razvoju koji pohađaju četvrti razred srednje škole (Tablica 2.) u usporedbi s brojem učenika koji upisuju prvi razred u redovnim školama, uspješnost srednjoškolskoga obrazovanja učenika s teškoćama u razvoju i dalje ostaje upitna.

Uspješnost učenika s teškoćama u ispitima državne mature

U ovom radu analizirani su rezultati (ocjene) učenika koji ostvaruju pravo na PIT (učenici s teškoćama u razvoju bez učenika s intelektualnim teškoćama, učenici sa specifičnim teškoćama učenja, učenici s teškoćama u području mentalnoga zdravlja i kronično bolesni učenici) u ispitima državne mature iz obveznih predmeta u ljetnom roku ukupno tijekom pet ljetnih rokova državne mature u školskim godinama od 2016./2017. do 2020./2021. u odnosu na rezultate (ocjene) prosječne populacije.

Tablica 4.

Rezultati prikazani u Tablici 4. pokazuju da učenici koji su ostvarili pravo na PIT u promatranom petogodišnjem razdoblju dva puta češće biraju polaganje ispita iz Matematike na osnovnoj, B razini u usporedbi s višom, A razinom. S druge strane, nešto više učenika koji ostvaruju pravo na PIT u ispitima iz Hrvatskoga i Engleskog jezika polagalo je višu razinu. U populaciji učenika bez prilagodbe također je veći udio učenika koji biraju osnovnu razinu ispita iz Matematike, a višu razinu ispita iz Hrvatskoga i Engleskoga jezika.

Tablica 5.

Iz podataka prikazanih u Tablici 5. proizlazi da se prosječne ocjene obje analizirane skupine učenika kreću u rasponu od dovoljan (Hrvatski jezik i Matematika za učenike s PIT na osnovnoj razini), preko dobar (Engleski jezik na osnovnoj razini, Matematika na višoj razini i Hrvatski jezik na višoj razini), do vrlo dobar (Engleski jezik na višoj razini).

Razlike u postignućima (ocjenama) učenika u analiziranim obveznim ispitima između učenika s prilagodbom ispitne tehnologije i populacije učenika bez prilagodbe provjerene su t-testom i dobiveni su rezultati prikazani u Tablici 6.

Tablica 6.

U rezultatima ispita iz Matematike A (viša razina) ne postoji značajna razlika u prosjeku ocjena za učenike koji su imali prilagodbu od učenika koju ju nisu imali ($p > 0,01$).

U rezultatima ispita iz Matematike B (osnovna razina) ne postoji značajna razlika u prosjeku ocjena za učenike koji su imali prilagodbu od učenika koju ju nisu imali ($p > 0,01$).

U rezultatima ispita iz Hrvatskoga jezika A (viša razina) razlika u prosječnoj ocjeni između učenika koji su imali prilagodbu i onih koji nisu imali prilagodbu statistički je značajna ($p < 0,01$). Učenici koji imaju prilagodbu u prosjeku su ostvarili nešto nižu ocjenu od učenika koji nisu imali prilagodbu.

U rezultatima ispita iz Hrvatskskoga jezika B (osnovna razina) ne postoji značajna razlika u prosjeku ocjena za učenike koji su imali prilagodbu od učenika koju ju nisu imali ($p > 0,01$).

U rezultatima ispita Engleski jezik A (viša razina) razlika u prosječnoj ocjeni između učenika koji su imali prilagodbu i onih koji nisu imali prilagodbu statistički je značajna ($p < 0,01$). Učenici koji imaju prilagodbu u prosjeku su ostvarili nešto višu ocjenu od učenika koji nisu imali prilagodbu. Međutim, kao i u ispitu Hrvatskoga jezika na višoj razini razlika u vrijednosti aritmetičkih sredina je tek 0,08.

U rezultatima ispita iz Engleskoga jezika B (osnovna razina) ne postoji značajna razlika u prosjeku ocjena za učenike koji su imali prilagodbu od učenika koju ju nisu imali ($p > 0,01$).

Slika 2.

Rasprava i zaključak

Analiza specifičnosti srednjoškolskoga obrazovanja učenika s teškoćama u razvoju u Republici Hrvatskoj i njihovih rezultata ostvarenih u ispitima državne mature dovela je do zanimljivih i dvojakih rezultata. S jedne je strane utvrđeno da se brojni učenici s teškoćama u razvoju još uvijek suočavaju s preprekama koje oslabljuju mogućnosti njihova ravnopravnoag sudjelovanja u srednjoškolskim programima na temelju jednakih mogućnosti kao i njihovi standardno razvijeni vršnjaci, iako se primjećuju pozitivni pomaci. Takav zaključak proizlazi iz činjenice da iz godine u godinu sve više učenika s teškoćama u razvoju upisuje redovne srednjoškolske programe, ali je još vrlo malo tih učenika u gimnazijskim ili četverogodišnjim i petogodišnjim strukovnim programima. Ta se okolnost nepovoljno odražava na upisivanje učenika s teškoćama u visokoškolske programe, a time i na kasnije zapošljavanje na kvalitetnim radnim mjestima. Budući da je u populaciji osoba s invaliditetom svega 5 % osoba sniženih intelektualnih mogućnosti, sigurno je da mnoge osobe s invaliditetom na kraju ne realiziraju svoje potencijale i ne zapošljavaju se na radnim mjestima usklađenima s njihovim sposobnostima i interesima. S obzirom na činjenicu da inkluzivno obrazovanje podrazumijeva stvaranje uvjeta u okružju koje će poticati razvoj svakoga učenika, očigledno je da s tim u vezi treba postići napredak. Prije svega, važno je unaprijediti

postupak profesionalne orijentacije učenika s teškoćama i osigurati da se postupak procjene usklađenosti srednjoškolskih programa sa sposobnostima i interesima učenika ne svede na dijagnoze. Umjesto toga, potreban je holistički pristup koji će rezultirati kvalitetnom procjenom utjecaja razvojne teškoće na sposobnosti i mogućnosti učenja. Nadalje, kada učenik upiše srednjoškolski program, ustanova je dužna predvidjeti individualizirane načine rada za svakoga učenika. Ta individualizacija ni na koji način ne smije voditi snižavanju kriterija i očekivanjima nižih obrazovnih postignuća, već treba biti usmjerena k pronalaženju primjerenih oblika podrške svakom učeniku.

Na važnost ovoga iskoraka upućuje i analiza uspješnosti učenika koji ostvaruju pravo na prilagodbu ispitne tehnologije u ispitima državne mature u odnosu na opću populaciju. Utvrđeno je da učenici uz odgovarajuću prilagodbu na četiri obvezna ispita u prosjeku postižu jednake rezultate kao i njihovi vršnjaci, na jednom obveznom ispitu nešto bolji, a na jednom obveznom ispitu nešto lošiji prosječan rezultat. U pravilu je riječ o prilagodbama na razini percepcije i zahtijeva kao što su (Upute za prilagodbu ispitne tehnologije na ispitima državne mature, 2010):

- odgovarajući prijelom, font i tisak ispitnih materijala
- prilagodba ispita na Brailleovo pismo
- uvećani tisak na formatu A3
- pisanje eseja na računalu
- upute na crnome tisku učenicima s oštećenjem sluha koje ostalim učenicima čita voditelj ispitivanja
- produljeno vrijeme pisanja
- izuzeće dijela ispita (npr. izuzeće dijela slušanja s razumijevanjem na ispitu stranoga jezika koje se odobrava učenicima sa značajnim oštećenjem ili gubitkom sluha)
- osobni pomagač i dr.

Navedene prilagodbe potrebno je dosljedno primjenjivati i u redovnim školama uz očuvanje kvalitete učenja i poučavanja. Poštivanje propisa koji uređuju pravo učenika s teškoćama na jednake mogućnosti znatno bi proširilo njihove obrazovne mogućnosti. Također, postojeći model prilagodbe ispitne tehnologije moguće je unaprijediti, u skladu s budućim, detaljnijim istraživanjima u ovom radu prikazanih rezultata. Zaključno je moguće konstatirati da teškoće ne ograničavaju uspješnost obrazovanja učenika ako im se omogući individualiziran pristup i provjera znanja koja je usklađena s njihovim sposobnostima.