Original Paper

Teachers' Inclusive, Augmentative, Assistive and IT Competences in Working with Children with Special Educational Needs

Tamara Milić[1]

[1] Head of Unit for inclusive education, Ministry of Education, Science, Culture and Sports, Montenegro

Abstract

In this study we wanted to determine the presence of teachers' information-communication-technological competencies in working with students with special educational needs. Desk research provides an overview of policy and support in inclusive education in Montenegro, with a focus on teachers' inclusive training. From 2015 to 2018, 148 trainings were realized in the field of inclusive education and 3848 teachers were trained - most often, these were one-day trainings, duration - 8 hours, and the topics were: Working with specific disabilities, adaptation, individualization. Systematic observation based on a protocol was conducted with 15 children from the second to the sixth grade of primary school: autism; intellectual, visual, hearing, combined disabilities and difficulties: speech, language, reading and writing. The findings indicate that teachers are educated to an individualize approach. We observed the application of the approach and the use of learning and communication technology. The effects of teachers' work and competencies are better after training, coaching and when they get support from the professional associates of the school and/or resource center. Teachers' attitudes are positive, they show creativity, adaptability, use the technologies after they have been trained about the characteristics of students, and recommended approaches for working with them.

Keywords

inclusive education, children with special educational needs, augmentative communication, assistive technology, inclusive competencies

1. Introduction

Inclusion reflects the way society adapts to the individual. It starts with acknowledging the differences between the children. It is based on the education of management and teaching staff, professional associates, as well as children and students. They are an example and a model to follow, creators of positive attitudes, virtues, advocates and promoters of universal values of human and children's rights (Brown, 2016).

All activities that increase the ability are considered support, and they refer to any modification or adaptation: physical environment, educational and curriculum, didactic means and materials, methods of work (Graham, 2019).

Communication involves the exchange of information between two or more participants. The question that arises is what happens when communication is affected by obstacles, burdened with barriers in terms of manner, content, form, goal, processing, reception and use of information.

But, there are specific challenges in communication with children with disabilities and the environment in relation to them and with them. Depending on the type of developmental disability, many children have a reduced ability to express what they are experiencing, what is happening to them, what they want, expect, their intentions. Also to accept, understand other participants in communication, interlocutors. An additional difficulty is what, how and in what way they communicate and whether and how others understand them (Goldbart & Caton, 2010).

Children with visual impairments have difficulties in receiving, processing and communicating, communicating in writing. They rely on descriptions, tactile experience, aids, Braille, etc. In children with intellectual disabilities, general status affects language skills and communication, which is reduced, simple, targeted, concrete, experiential, without delay. Children with hearing impairments have difficulties in forming speech, locating the source of sound, verbal communication ... They use reading, sign language, they prefer written forms (Milićb et al., 2017). When it comes to children with physical disabilities, challenges in communication are possible in the form of difficult formulation, understanding, duration of communication, clarity, articulation. For children with the autism spectrum, the challenges of communication and social interaction are visible in sending, processing, transmitting and accepting the message, understanding the purpose, purpose of communication (Faherty, 2014).

Therefore, new approaches, methods, technologies in work and communication are in use.

Assistive technology is a set of instruments, means and devices that children with disabilities use to perform tasks which they would not otherwise be able to perform. Instruments can be industrial products or home-made tools - from simple pen holders, to expensive equipment such as custom computers, AT equipment, tablets, eye controllers, speech recorders, interactive whiteboards and walls, speech readers, etc. (Lazor, Isakov, & Ivković, 2012).

Augmentative communication consists of all methods of communication that replace or support common methods of communication when they are impaired or when they do not meet the needs of the

133

individual. It includes symbols, aids, strategies, and techniques used to strengthen communication (Draffan, 2019).

Some of the AT means used for communication are: communication board, picture book, objects, letters, words, applications that help communication with the help of symbols that are verbally supported. They are characterized by flexibility, accessibility, ease of use (Mitchell & Sutherland, 2020).

The goal of using some form of assisted communication is to achieve functional communication, participate in activities, acquire new knowledge and experiences. Communication is supported either by alternative means or by strengthening existing ones (Eminović & Denić, 2013).

The required inclusive competencies and the framework that gives a broader direction of their development when talking about children with special educational needs are defined in the context of attitudes, values and skills of teachers to implement educational work (Council of Europe, 2016).

2. Method

2.1 Aims, Tasks, Hypotheses

The aim of the study is to determine the representation of inclusive teachers in Information-Communication-Technological Competences.

In order to achieve the set goal, it is necessary to realize the following tasks:

1). Examine how to work on the development and support of inclusive teacher competencies from the perspective of creators and implementers of inclusive education policy and what is the scope, types, contents, target groups in the field of training for inclusive education;

2). Examine and determine differences in knowledge and practical application of teachers for the application of specialized and modern inclusive approaches and procedures;

3). Examine the characteristics of inclusive competence: Information-communication-technological among teachers.

The following hypotheses are set:

- H1 - We assume that there are systematic, appropriate, purpose-designed programs of professional development and support for inclusive teachers' competencies.

- H2 - We assume that the training contributed to the development of knowledge and efficiency of inclusive practice and the manifestation of inclusive teaching competencies: information-communication-technological literacy.

2.2 Instruments, Sample, Processing

Desk research is descriptive and provides an overview of policy and support in inclusive education in Montenegro, with a focus on teacher training. The desk analysis guide contains three parts. The first part is a list of trainings in the field of inclusive education with the following elements: number of trainings, number of trainees, training topics, duration of trainings. The second part of the analysis of previous trainings for teachers determines what were the criteria for selecting teachers for training, who were the implementers of trainings, what are the results of the evaluation: grades, level of satisfaction,

134

recommendations. The third part refers to other available support, indicates additional resources that are offered and available to teachers: manuals, guides, instructions, portal, teaching aids, aids, assistive, teaching materials, etc. For that purpose, we use: Strategies, Laws, List of trainings in the field of inclusive education, Catalogue of accredited programs, Analysis of previous trainings for teachers (Schools involved in training, Evaluation results: grades, level of satisfaction, recommendations), Other support available (Manuals, guides, instructions, portal... Didactic, assistive, teaching material, etc.)

Also, a systematic observation of the teaching process was realized. Its goal was to directly, in the classroom, make sure whether the teachers apply the required competences. Therefore, a systematic observation of the teaching process was conducted. The intention was to determine the real presence of the phenomenon—competences and benefits for children. It was applied on the basis of a pre-prepared observation protocol for 15 children. The selection of schools was appropriate due to several criteria: a large number of children with special educational needs, equal distribution and participation of children with specific disabilities and developmental difficulties, organizational and technical reasons. Schools in Podgorica dominate, one each in Budva, Berane, Kotor, Pljevlja and Nikšić, which means that we have relatively achieved equality in terms of representation of Montenegro. Most often, the observation was conducted in classes for the subjects Montenegrin Language and Mathematics. Students from the second to the sixth grade of primary school were observed, in relation to disabilities and developmental difficulties. Situations of learning and participation were observed on the basis of the application of approaches, learning and communication technologies adequate for specific obstacles and difficulties in development. It was observed which approach or technology was applied and in which situation, for what purpose, with what effect. The degree of knowledge of the obstacles and difficulties in the development of the child that the teacher shows were assessed, as well as the response of the teacher to the needs of the child in relation to learning and communication. Situations of learning and participation were observed on the basis of competencies visible in the application of approaches, learning and communication technologies adequate for specific obstacles and difficulties in development. The documentation on which teachers base their work, the training they went through and the support they receive for work and during work were analysed. The observation is carried out in relation to the age of the child, the disorder and the developmental difficulty. It observes which approach or technology has been applied and in which situation, for what purpose, with what effect. The degree of knowledge of the child's disabilities and difficulties in the child's development was assessed, as well as the application of the teacher's inclusive competence to the child's needs in relation to learning and communication. Finally, possible obstacles and challenges in relation to teacher competencies were studied.

During the processing of data obtained by the research, programs for qualitative data analysis and descriptive inference statistics were used. ATLAS.ti version 8.2. computer program for systematization and coding of the obtained results (Friese, (2012). The reason is to provide evidence, reduce the risk of subjective interpretation of these data, and obtain significant and reliable findings.

3. Result

3.1 Desk Analyses Results

3.1.1 Analyses of Legal and Strategic Framework

Inclusive education is a systematic part of the field of education in Montenegro. Therefore, a legal and strategic basis and framework have been set. It refers to the conditions, practice for the realization of learning and participation of students with special educational needs. Also to teachers. The legal, strategic and program basis for inclusive education and teacher competencies has been set (Note 1).

The system of professional development of teachers is oriented towards continuous support and empowerment of teachers. The authors of the program are selected through a public competition that is announced every other year. Renewal of the work license can be achieved after the completion of 16 hours of professional training in priority areas and 8 hours from other professional training programs for a period of five years. As the most common, we found forms and activities of continuous professional development: counselling, support on request, participation in seminars, the need for coaching - experiential guidance by more competent colleagues, collaborative learning, etc.

3.1.2 Overview of Trainings in the Inclusive Education

By analysing the documentation and reports of the Bureau for Education Services, we determined the scope, types, topics of education for the application of methods of work and communication with children with special educational needs.

In the period from 2015 to 2018 in the field of inclusive education, 148 trainings were conducted and 3848 teachers were trained. It turned out that one-day trainings lasting 8 hours are the most common. Within the Catalogue of Professional Development of Teachers, we offer numerous accredited trainings on topics in the field of inclusive education, which is treated as one of the priority (Note 2).

In addition, programs were identified that were, as a rule, initiated and implemented through projects or through various initiatives. Most often in response to the needs of children and the teaching process, and contemporary trends and practices, and extremely targeted in terms of topics and groups for which they are intended and implemented (Note 3).

A review of the evaluation of the seminar in terms of implementers and participants indicate that teachers need continuous training for inclusive teaching and monitoring of new technologies and trends in education. Also, that it is necessary to monitor, guide and supervise the application in practice. This indicates that the training is targeted, aimed at acquiring precisely the knowledge that makes up the corpus of positive attitudes and should combine the required competencies.

On the other hand, the initiative "from above" is noticed, and less the one encouraged by self-evaluation, professional culture of responsibility and child-orientation. Trainings are most often conducted within projects or on the initiative of the Ministry of Education, part of the Bureau for Educational Services, the Centre for Vocational Education. Rarely and occasionally by schools. Therefore, advisors appear as implementers of trainings: The Ministry of Education, the Bureau for

Educational Services, the Centre for Vocational Education, resource centres, professional school associates.

3.1.3 Additional Support to the Inclusive Education

The system of inclusive education is organized in such a way that in all policy and implementation institutions, those responsible are identified and delegated (Table 1) for designing, coordinating, monitoring and supporting practice.

Table 1. Organization of the System of Inclusive Education

Policy level	Supportive and Advisory level	Practical and implementation level
Ministry of Education - Unit for preschool and inclusive education	Bureau for Educational Services - advisor for the inclusive education	Proffesional preschool and school associates (pedagogues, psychologist, special educators and rehabilitators)
	Center for Vocational Education - advisor for the inclusive education	Proffesional resource centers associates (special educators and rehabilitators, psychologist)
		Mobile services (special educators and rehabilitators, psychologist, pedagouests, teachers

Accordingly, through further analysis, we examined and showed that teachers have access to professional support in the form of hiring resource experts, members of the mobile service. We found that teachers are mostly referred to professional associates in the school and that they cooperate with professionals from the resource centre on call or according to needs, when it is important to receive initial instructions for working with the child, and less continuously (Figure 1). They rarely rely on mobile services.
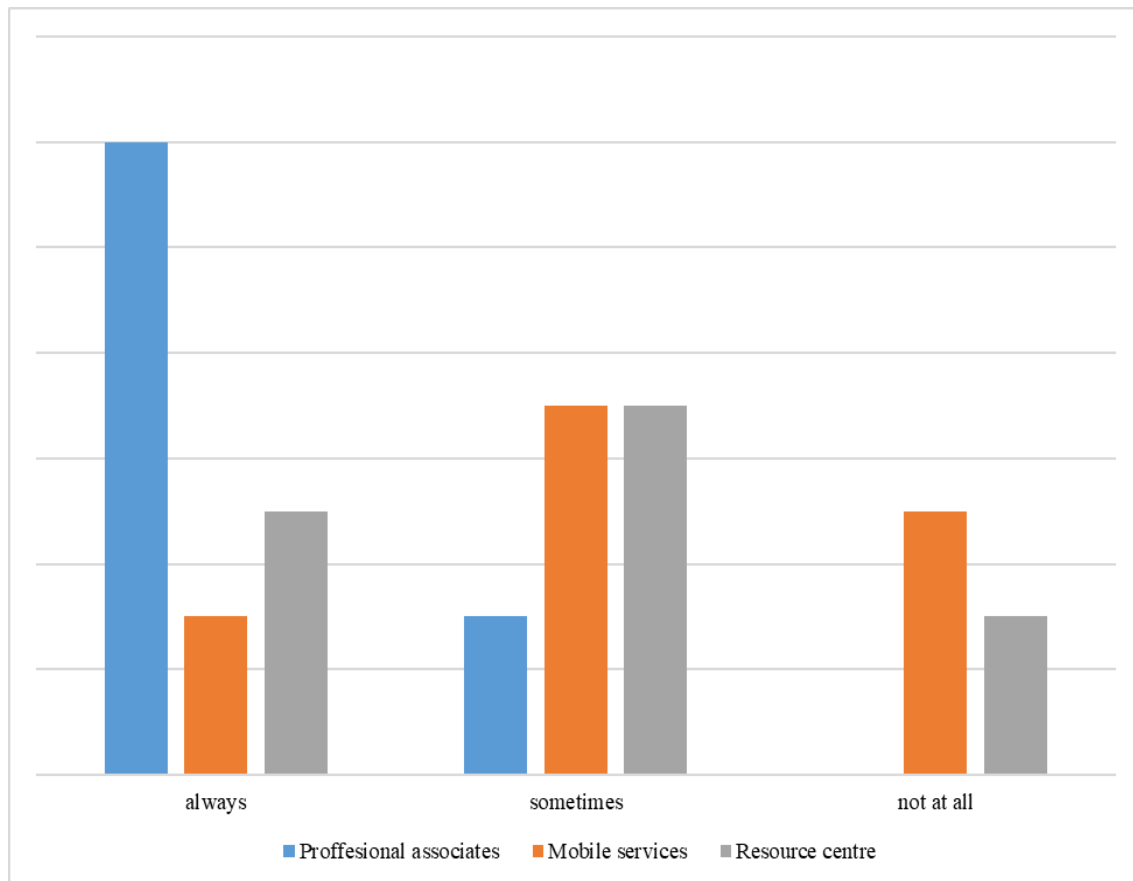
**Figure 1. Support to the Teachers**

Numerous manuals and materials are available to teachers. All are distributed to schools or are available at: http://www.skolskiportal.edu.me/Pages/Inkluzivnoobrazovanje.aspx. This website offers publications, examples of good practice, ideas and solutions to classroom dilemmas, etc. It is important to point out that the inclusive portal served as a channel of communication with teachers and parents in the situation caused by the COVID-19 virus.

Instructions, examples and ideas were posted and thus available in order to facilitate the adaptation and development of individualized teaching materials for home learning for children with special educational needs in accordance with the individualized development-educational program.

The materials most commonly produced, delivered, provided, and rented to resource schools by schools are textbooks, notebooks, worksheets, and Braille tests, relief attachments, DAISY (Note 4) textbook application guides, communication board, visual layout and materials, silent books, tactile and interactive whiteboards, tablet apps, space adaptation instructions.

3.2 Results of the Systematic Observation

Systematic observation was conducted for the following disabilities and difficulties (Figure 2): autism - 2, intellectual impairment - 3, visual impairment - 1, hearing impairment - 2, speech-language and reading and writing difficulties - 3, combined impairment - 4, intellectual and hearing impairments).

138
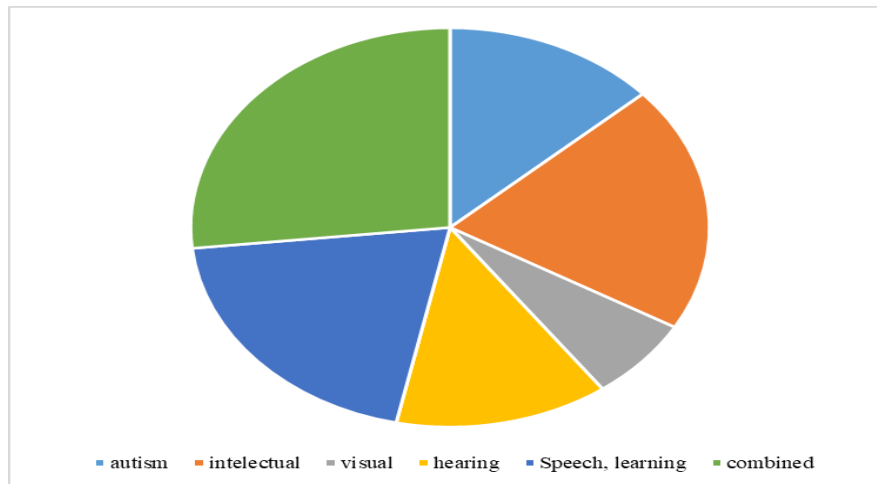
Figure 2. Disabilities and Difficulties among Observed Children

The approach or technology is fully in accordance with the obstacles and difficulties in development, applied in the situation in which the observation of the teaching process with the child was conducted (Figure 3).
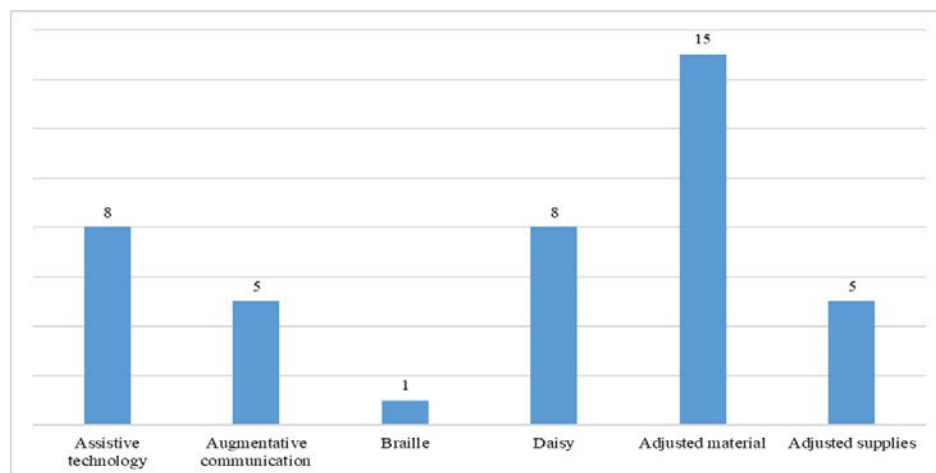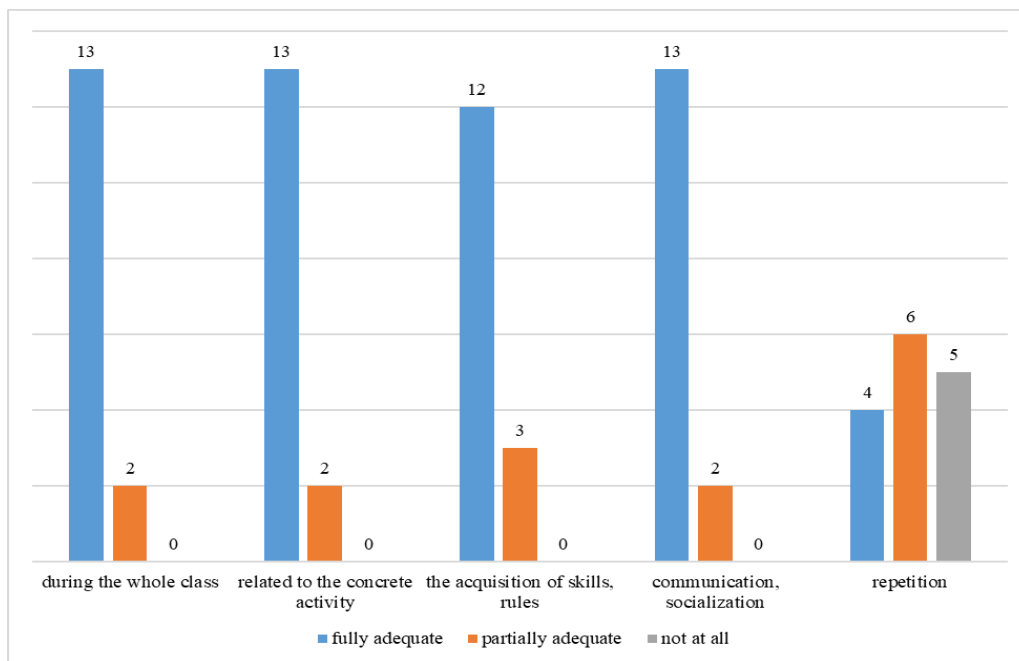

Figure 3. Applied Approach during the Observation

The approach or technology was applied during the observation, as a rule adequate to the situation for which they are intended, and which is presented in Figure 4. It shows, in general, the process of rounding, repeating knowledge during the lesson, checking what has been done.

Observations have shown that the purpose for which a particular approach or technology is used depends on the disability, the individualized status of the child, and that the areas to be suggested for individualized support to children are precisely those that are partially targeted in teaching: behaviour, cooperation. Also that some phases of the lesson do not have priority as knowledge acquisition, especially for certain disorders (e.g., to indicate to a child with autism during the preparation what will

139

happen or in a child with intellectual disabilities to summarize at the end and repeat the key, etc.). The purpose of use is shown in Figure 5.

**Figure 4. Situation of Application of an Approach or Technology during Observation**
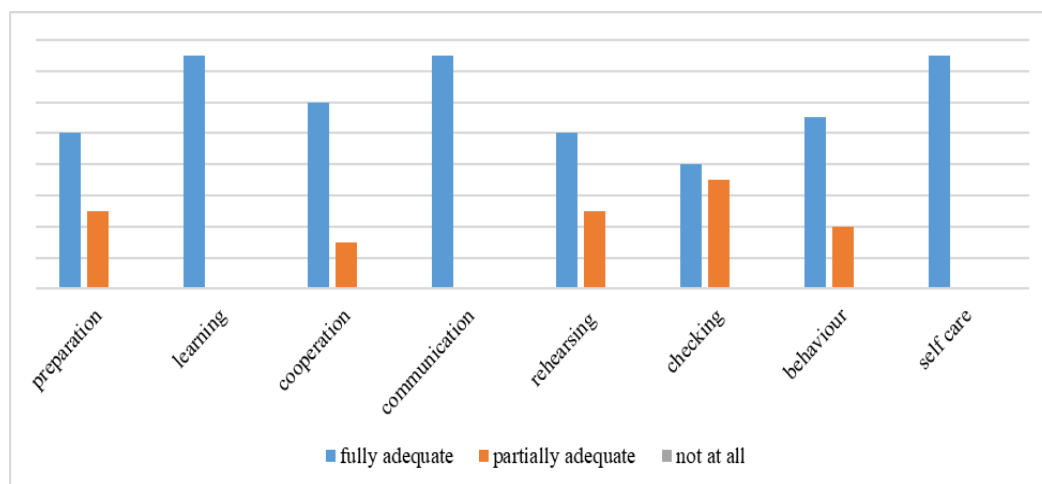

Figure 5. The Purpose of Applying the Approach or Technology during Observation

During the observation, the teacher's socio-emotional competence proved to be complete. It is shown in Figure 6. Creativity and communication and information skills are well present, but these are also areas that can be further strengthened.

140
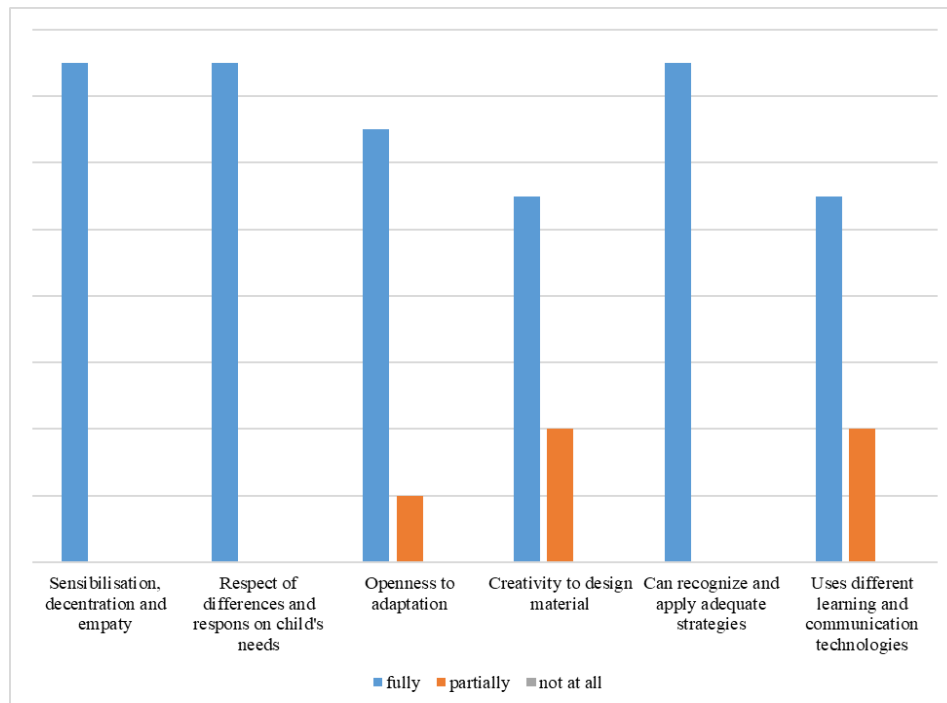
Figure 6. Teachers' Competences during the Observation

The analysis showed that teachers base their work on IDEP, that they intensively adapt materials for a specific child, rely on professional, resource support, put the child in a situation that supports learning (first bench, application of learning and communication strategies), apply visualization, assisted forms of communication and learning (Figure 7). However, a potential risk of "simplification" of content, access and materials has been identified.
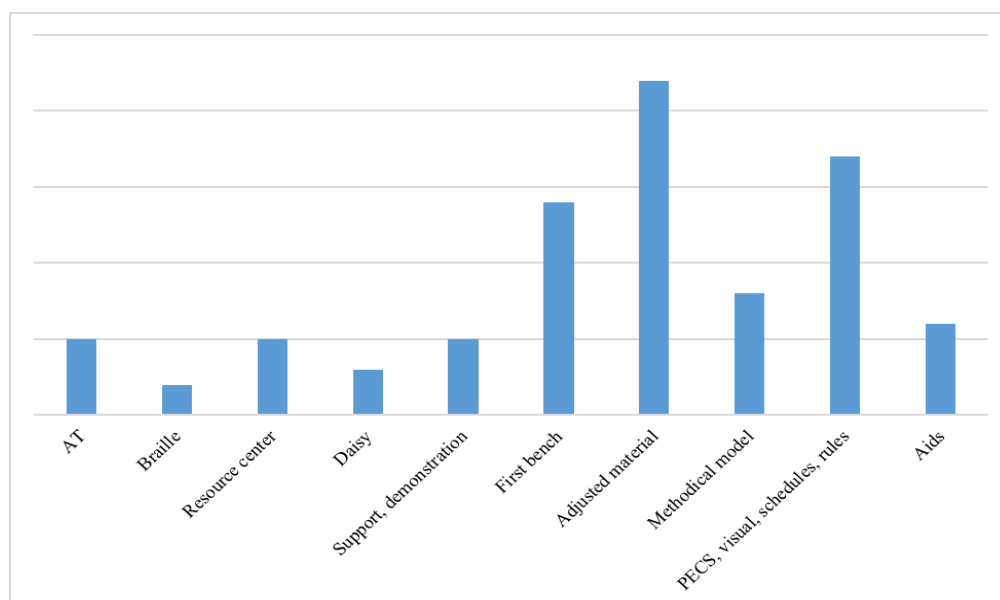
Figure 7. The Most Commonly Used Approaches during Observation

141

Further qualitative observations are presented collectively according to the obstacles and difficulties in the development of students in relation to which the teaching practice is observed.

Related to children with autism, it was first noticed that they were non-verbal children. As a result, teachers are placed with greater demands for adaptation: method, content, strategy, goals. The tablet and smartphone are registered in the application (one student uses alternative communication - gives answers by typing on the iPad). Then structures, planners, schedules, rules, visual aids, marking, symbols. Thanks to this, students have the opportunity to interact, to better accept and establish communication and provide more complete answers. In terms of academic expectation, the work is focused on learning, preparation for work, adaptation to the coming situation, partly communication, much more understanding, practice, knowledge testing. Teachers have shown that they are competent because they are trained, informed, prepared to accept and work with the child, they are supported by a resource and school special educator, rehabilitator. There is a smaller representation of teachers' creativity. It is because of the We children has routines and based on that teaching approach is organised on the routines. The reason may also be that they receive the finished material from the resource centre (Table 2).

Table 2. Approaches during Observation in Relation to Autism

Autism	
Areas of observation	Noticed during the observation
Devices, supplies, AAC, AT	Tablet, smart phone
Approaches	Structures, planners, schedules, visual aids, pictorial material, marking, symbols
Teachers' behavior	Trained (autism, IDEP, AAC), informed, accept the child, less creative (respond to the child's routines by turning them in favour of the child), reliance on professional associates
Child's behavior	IDEP, interaction, communication, adaptation, attachment to the assistant

In classes involving children with intellectual disabilities, the lessons were conducted by teachers trained in the development and implementation of Individual Educational Developmental Plan (IDEP), work with children with intellectual disabilities, for assistive technology (Table 3). The paper uses simplified tasks, pictorial material. Assisted communication is occasionally used in agreement with a speech therapist, most often for a specific activity. The focus is on, in addition to academic achievement, establishing communication and developing peer support. The working material is adequately designed and uniform. In one situation, we had a child with moderate intellectual disabilities for whose learning

and participation needs the DAISY textbook was applied. This proved to be a good choice given the distractions the child has because DAISY focuses his attention. The child was able to integrate.

Table 3. Approaches during Observation in Relation to Intellectual Disabilities

Intellectual disability	
Areas of observation	Noticed during the observation
Devices, supplies, AAC, AT	Computer and DAISY
Approaches	Simplified tasks, pictorial and obvious material
Teachers' behavior	Trained (IDEP, IQ, AT, AAC), approach children rationally, adequate work material, focus on the child's experience, the habit of relying on the assistant
Child's behavior	Focusing attention, peer experience, participation

In the case of the observed blind child, the teacher presented the aids, the IDEP for the child and the recommendations of the resource centre. There is active participation of a special educator, a resource centre rehabilitator who provides advice to teachers, conducts training in the use of Braille, works individually with the child. The teacher was trained in IDEP, working with children with visual impairments, using Braille, and received advice on assistive technology. Thanks to the fact that they have a Braille machine (child, teacher), the material is prepared and the child works independently during the processing of materials, learning, writing, reading, arithmetic, group work, acquisition of skills, rules. Also we investigate how they use the aids, cooperate with the resource centre and we found that it is continuous (Table 4).

Table 4. Approaches during Observation in Relation to Visual Disability

Visual disability	
Areas of observation	Noticed during the observation
Devices, supplies, AAC, AT	Braille
Approaches	DAISY, RC recommendations
Teachers' behavior	Trained in Braille, DAISY, IDEP, cooperation with a special educator and rehabilitator for the visual impairments, with parents, preparation of materials, targeted use of aids

Child's behavior	Works independently: learning, reading, writing, arithmetic..., participates in group work

In several situations during the observation, we had students with combined disorders: physical and intellectual, intellectual and hearing impaired (a child with Down syndrome). The paper uses adapted material and assisted communication, PECS in a child with intellectual and hearing impairments, which indicates knowledge of the disorder. A visual schedule was used to adopt skills and rules - the focus was on the student establishing communication with peers, to socialize. Where hours were observed for children whose combination of disabilities included those related to physical development, an individualized approach was observed, an adapted workspace/table with adjustable plate, a chair with handrails, writing and reading accessories, notebooks contrastingly shaped with accentuated lines. In children with hearing impairments that accompany intellectual disabilities, the impact of early intervention and work has been shown to be an advantage. This experience of the child in combination with the trained teacher leads to individualization of work, application of targeted and specialized techniques and assistive technology. In this particular case, a smart board is provided that is used throughout the hour with the displayed visual content in accordance with the recommendations of the Resource Centre from Kotor (Table 5).

Table 5. Approaches during Observation Related to the Combined Disabilities

Combined disability	
Areas of observation	Observed during observation
Devices, supplies, AAC, AT	Smart board, computer (DAISY program), adjusted furniture, space
Approaches	PECS, visual layout, reading and writing accessories,
Teachers' behavior	Trained (IDEP, IQ, AAC, AT, DAISY), adequate relationship, adjusted, targeted material, aids, individualized approach, cooperation with RC
Child's behavior	It feels safer, more important, better and more successful in communicating, mastering materials, interacting with peers

In the class in which the child with hearing impairments is included, the teacher is trained in IDEP, assistive technology, knowledge about the child. The child has a built-in artificial cochlea and has been included in the early intervention program at the Resource Centre from an early age, which has led to a close connection between the school and the Resource Centre. ICT technology was not required for a specific lesson because the teacher used adapted material and accessories, the method of verbal

demonstration, visual techniques, addressed the student in a targeted manner (Table 6). Distractions were eliminated in accordance with the recommendations.

Table 6. Approaches during Observation in Relation to Hearing Impairment

Hearing disability	
Areas of observation	Noticed during observation
Devices, supplies, AAC, AT	Cochlear implant
Approaches	Eliminates distractions, customized materials and accessories, visual techniques, verbal demonstration methods
Teachers' behavior	Training (IDEP, adaptation, AT, on hearing impairment), individualizes, respects RC recommendations
Child's behavior	Good focus and attention because it has adequate material, participates with peers in group work - adequate and interesting and universally designed material

When it comes to speech-language and learning difficulties (as a rule, dyslexia, dysgraphia, ADHA, etc.) obtained and presented in Table 7. Teachers combine: DAISY, adapted and visual materials, obvious means. They are most often focused on acquiring skills, rules, mastering a new situation. They have been shown to monitor, assess children and use models and new teaching aids accordingly. In children, there is an improvement in patience, attention, motivation, activities last longer, emotional exchange is bigger and better, different opinions are taken into account. The performance is greater when they have the support of a professional service.

Table 7. Approaches during Observation Related to the Reading, Writing, Attention Difficulties

Reading, writing, attention difficulties	
Areas of observation	Observed during observation
Devices, supplies, AAC, AT	Computer (DAISY program)
Approaches	DAISY, custom and visual material, obvious means
Teachers' behavior	Trained (IDEP, DAISY, Methodical instructions for reading and writing), monitor, prepare and assess children and respond to it, with the support of professional associates
Child's behavior	Improving in patience, attention, motivation, cooperation with peers, they work longer

4. Discussion

The general impression is that teachers are purposefully trained to work with a child with a specific disability or developmental difficulty they have in the classroom. Targeted, optimal and appropriate application of specific techniques, tools, accessories, approaches in working with a specific disability or difficulty in development.

They show openness and flexibility to adapt to the child and organize the teaching process in the direction of achieving the goals set by the IDEP. They are based on the knowledge and skills acquired in the trainings, through instructions and advice, practical guidance they receive from school, resource or project associates. Information technology competence is present depending on the type of disability and the child's needs, training, information on assistive technology and equipment.

In particular, it is noted how important it is when a child is included in the early intervention program from an early age and when there is continuity of involvement in educational processes. It has been observed that other school associates are less involved: psychologists and pedagogues. Their greater engagement can empower teachers to use methodological models more confidently (the role of pedagogues), to make parents less involved (the role of psychologists).

Subject programs need to set and define outcomes more broadly and flexibly that will be appropriate for children with special educational needs and that will ensure comprehensiveness, accessibility, equality, equity, greater adaptability and applicability.

When it comes to children with autism spectrum, teacher training was targeted for the development of IDEP, the application of assisted communication. Support includes a resource centre, which empowers them to use structures, planners, schedules, rules, visual aids. Teachers adapt to the characteristics of the children and individualization is targeted.

When it comes to children with visual impairments, it is confirmed that it is an effective combination of school equipment, training that the teacher goes through, renting work materials, cooperation, monitoring and guidance by the resource centre.

Teachers in working with children with hearing impairments apply IDEP, preparation for class, adapted material, aids, recommendations. Also, this is because the teachers are educated and have direct cooperation and exchange with the Resource Centre.

Furthermore, in children with combined disabilities, it was concluded that children are approached appropriately because they harmonize and apply the knowledge gained in training, instructions obtained regarding the use of assistive cabinet services, customized materials and assisted communication.

When it comes to speech-language and learning difficulties, it is evident that teachers are educated, monitored and supported, and for that reason they work according to IDEP, prepare, combine techniques: Daisy, adapted and visual material, obvious means.

Teachers' attitudes are positive, they show creativity, adaptability, apply technologies.

146

Obstacles include technical equipment, less correlation of subject programs, rare involvement of mobile service, outcomes in new subject programs are not sufficiently defined, broad, flexible, diverse and clear for these children, lack of speech therapists, special educators, non-cooperation with the resource centre branch.

The effects of work and competence are greater when training, guidance, monitoring and support are combined - by professional associates as a rule of the special educator of the school and/or resource centre.

References

Brown, Z. (2016). *Inclusive Education, Perspectives on pedagogy, policy and practice*. Routledge.

Council of Europe. (2016), *Competence for Democratic Culture—Living together as equals in culturally diverse democratic societies*. Council of Europe, Strasbourg, ISBN 978-92-871-8237-1. Retrieved from http://book.coe.int

Draffan, E. A. (2019). *Predavanje: AT i AAC, set simbola i originalna AAC aplikacija*. Korišćenje tehnologije 21. veka za promociju komunikacije, obrazovanja i socijalne inkluzije dece sa smetnjama u razvoju, 05-06.06.2019., ŠOSO "Milan Petrović", Novi Sad.

Eminović, F., & Denić, S. (2013), *Obrazovanjem do digitalne inkluzije dece sa višestrukom ometenošću*. Beograd: FASPER.

Faherty, C. (2014). *Autism... What Does It Mean To Me*? Future Horizons INC., Arlington, USA.

Friese, S. (2012). *Qualitative Data Analysis with ATLAS.ti*. London: Sage.

Goldbart, J., & Caton, S. (2010). *Communication and people with the most complex needs: What works and why this is essential*. Research Institute for Health and Social Change Manchester Metropolitan University (MMU).

Graham, L. (2019). *Inclusive Education for the 21st Century, Theory, policy and practice*. Routledge.

Lazor, M., Isakov, M., & Ivković, N. (2012), *Asistivna tehnologija u školi*. Edicija Praktikum, Škola za osnovno i srednje obrazovanje "Milan Petrović", Novi Sad.

Milić, T., Marić, A., Vuksanović, A., Popović, A., Trailović-Šljivančanin, A., Radulović, J., & Popović, J. (2017). *Instruktivno-edukativni materijal za inkluzivni rad i učenje đece s posebnim obrazovnim potrebama*. Ministarstvo prosvjete, UNICEF, Podgorica.

Mitchell, D., & Sutherland, D. (2020). *What Really Works in Special and Inclusive Education, Using Evidence-Based Teaching Strategies*. Routledge.

Notes

Note 1. General Law on Education and Upbringing ("Official Gazette of the Republic of Montenegro", No. 64/02, 31/05 and 49/07 and "Official Gazette of Montenegro", No. 45/10, 45/11, 39/13 and 47/17), Strategy of Inclusive Education (2019-2025), Law on Primary Education and Upbringing "Official Gazette of the Republic of Montenegro", No. 64/02 and 49/07 and "Official Gazette of Montenegro",

No. 45/10, 39/13 and 47/17), Teacher Education Strategy (2017 - 2024), Law on Upbringing and Education of Children with Special Educational Needs ("Official Gazette of Montenegro" No. 45/10, 47/17), Rulebook on the manner, conditions and procedure of guidance children with special educational needs ("Official Gazette of Montenegro", No. 57/11, 60/19), Program for the implementation of PISA recommendations 2015, Rulebook on the organization of in-service teacher training and the method of selecting the author of in-service training programs ("Official Gazette of Montenegro" No. 63/16), Rulebook on detailed conditions, manner and procedure of issuing and renewing a work permit to a teacher, director and assistant director of an educational institution ("Official Gazette of Montenegro", No. 023/14).

Note 2. The topics of training that were most often realized from the offer within the Catalogue of professional development of teachers are: "Working with children with visual impairments"; Braille; "Teacher education in secondary schools to work with students with special educational needs"; "Index to Inclusive Culture, Policy and Practice in Educational Institutions"; "Inclusive education: Kindergarten tailored to the child"; "Intensive interaction of children with severe combined disorders"; "Use of assistive technology"; "Early intervention"; "Sensory integration"; "Training of professional staff of preschool institutions and support to parents of children with autism spectrum disorders"; "Methods and procedures in working with children with autism"; "Nonverbal communication and basics of sign language"; "Training for the development and implementation of the Individual Transition Plan - ITP 1 and 2"; "Training for the development and implementation of IDEP"; "Support for children with intellectual disabilities"; "Support for children with hearing impairments"; "Roadmap (test toolkit for recognizing difficulties in the process of mastering reading and writing skills)"; "Learning difficulties (dyslexia, dyscalculia, dysgraphia)"; "Students with ADHD syndrome: indicators and approach to work"; "Students with Cochlear Implant"; "Fundamentals of inclusion in sports (principles, benefits and significance of the Special Olympics)"; "Special Olympics", "Young Athletes", "Student Assessment in Inclusive Education"; "Speech and language development"; "Recommendations for educators for the adaptation of space, activities, work materials to encourage intellectual development", "Recommendations for educators for the adaptation of space, activities, work materials for autism spectrum disorders".

Note 3. "Assistive technology and its application in the areas of intellectual, visual, hearing, physical disabilities, autism spectrum" - about 200 participants, "Assisted communication for children with autism spectrum disorders in regular schools" - 53 participants. Training organized by the Ministry of Education and UNICEF for "Implementation of the guide for working with children with intellectual disabilities" (5 days, 5 groups, 120 participants), organized by the Ministry of Education and UNICEF: "Training of trainees to work on an inclusive model", (Bar, Nikšić, Podgorica, Bijelo Polje for 2 days, 2 groups for 97 participants). "Development and implementation of ITP - 1 in primary and secondary schools" for 14 groups - about 300 participants, Ministry of Education and KulturKontakt, "Development and implementation of ITP—2" - 16 groups for about 300 participants, Center for

148

Vocational Education, KulturKontakt and NGOs. Consultations regarding the application of the material "Instructional-educational teaching material for inclusive work and learning" organized by the Ministry of Education (4 groups, about 100 teachers). The Ministry of Education also organized a conference on the use of materials "Package for the organization of activities at the school level on non-discrimination" (5 sessions, 110 participants), Development and application of individualized and specialized didactic and teaching aids in kindergartens and schools (80 participants).

Note 4. DAISY—Digital Accessible Inform.