Teacher assistant role on improving inclusion and academic achievement of students with special educational needs in mainstream schools

Masterthesis track YSP

Faculty BSS

University of Groningen

Student: Sonia Agourida

Student number: S4914201

Course Name: PAMAY502

Name of first supervisor: Prof. dr. Alexander Minnaert

Name of second supervisor: dr. Marja Cantell

Abstract

The purpose of this scoping study was to examine the role of the teacher assistant in the inclusion of students with special educational needs in the classes of mainstream schools. For this purpose, a scoping review of research from the international literature regarding the specific issue was carried out. From the review of the literature it emerged that co-teaching, i.e. the cooperation of a general teacher and a special education teacher (who has the role of teacher assistant) significantly affects the process of integration of students with special educational needs. In addition, co-teaching has a positive effect on the academic achievements of students with special educational needs, as it contributes to increasing attention and improving performance, increasing self-confidence and social skills, reducing disruptive behavior, maximizing instructional time, increasing the sense of belonging and teamwork, increasing teaching options for all students, but also in better participation and promoting the active involvement of students with SEN. Furthermore, from the review of the literature, some limitations were recorded that hinder the effectiveness of teacher assistants. Such limitations are insufficient support from general education teachers, insufficient support from the state, lack of training, lack of time. In addition, the quality of teacher assistant's pre-service and in-service training plays an important role in the effectiveness of teacher assistants. The findings of this scoping review show that the role of the teacher assistant and co-teaching is very important in promoting the equal participation of students with SEN in the educational process.

Keywords

Co-teaching, Teacher assistant, inclusion, academic achievement, special educational needs

Table of Contents

1. Introduction

1.1. Academic background and theoretical framework

Over the past 20 years, the percentage of students with Special Educational Needs (SEN) and various disabilities/disabilities attending schools and classrooms alongside typically developing peers has gradually increased. As the ratio of the former to the latter increases, so does the number of special education teachers, regular teachers and school psychologists who are qualified to provide inclusive services (Chopra & Giangreco, 2019). In recent decades, as mentioned, there has been a global evolution of the inclusion of children with special educational needs in a form that has been called inclusive education or co-education. Inclusion is a modern global trend, a new form of educational support for people with special educational needs. Its main characteristics are that children with and without special needs coexist in the same schools, in the same classes with their peers, participating in the teaching process according to their abilities and needs (Nilholm, 2020). In 2017, the United Nations Educational, Scientific and Cultural Organization (UNESCO) reported that students with disabilities are less likely to complete primary or secondary school in many countries around the world (UNESCO, 1994). In addition, Article 24 of the United Nations Convention on the Rights of Persons with Disabilities states that countries around the world must ensure that students with disabilities receive free, inclusive and appropriate education in primary and secondary education. Although this is an obligation, little has been published about legislative and policy efforts and the implementation of services and supports for students with Special Educational Needs around the world (Nilholm, 2020).

Teachers must be well trained to recognize the unique characteristics of their students with SEN and work with them to enhance their psychosocial and academic skills (Giangreco, 2013). When teachers are adequately trained, they can design and implement successful educational programs that address their students' personal strengths, needs, and vulnerabilities (Nilholm, 2020). One of the methods of implementing inclusive education is cooperative teaching, which appeared in the United States of America in the 60s. According to Nilholm (2020) cooperative teaching is a form of restructuring educational processes in which two or more teachers of specific educational subjects work together to support academically and behaviorally heterogeneous groups of students in inclusive

educational environments (Webster & De Boer, 2019). Co-teaching is a cooperative service delivery approach to meeting the educational needs of students with special needs in inclusive classrooms (Vogt et al., 2021). It has emerged as a popular alternative to special education and is a way to promote the inclusion of students with disabilities in the general education environment and for systemic change (Sharma & Salend, 2016). Co-teaching typically involves at least two professionals, a general education teacher (GET) and a special education teacher (SET) sharing instruction for a group of students with diverse needs in a classroom setting (Radford et al., 2015). According to Friend et al. (2010) in a co-teaching class a general education teacher and a special education teacher develop together a differentiated curriculum in order to meet the needs of different students. In a co-teaching classroom, teachers share the planning, presentation, assessment, and management of the classroom in an effort to enhance the learning environment for all students (Giangreco, 2021).

Six basic models of co-teaching have been described in the literature that serve different purposes and functions in the inclusive classroom (Friend et al., 2010): 1) One teach-one observation, 2) Station Teaching, 3) Parallel Teaching, 4) Alternative Teaching, 5) Teaming, 6) Supporting supplementary (One teach, one assist). Friend et al. (2010) pointed out that the roles of the two teachers are not fixed and clear, as they can take on any of the responsibilities proposed by the above co-teaching models. Through these models, teachers respond to the learning needs of both students with disabilities and the rest of the class.

Usually the special education teacher has a supporting role and is referred to in the literature as a teacher assistant. Co-teaching has been implemented at all grade levels in elementary and secondary schools and has been used to teach students with diverse learning needs in language arts, mathematics, science et cetera (Radford et al., 2015). More specifically, through co-teaching it is intended that disabled students have access to the official curriculum and at the same time benefit from specialized teaching strategies (Friend et al., 2010). Among the main goals of co-teaching and teacher assistant is to enhance the academic achievement and social outcomes of students with disabilities (Butt, 2016; Giangreco, 2021). Through the learning process of co-teaching and the existence of teaching assistants in the classroom, students with special educational needs can benefit in academic areas, in their self-esteem and self-confidence, but also in their interaction with peers. Also, students at risk of learning failure can be helped as it will be possible to give them individualized attention and increased teaching time (Bowles et al., 2017).

1.2. Aim and research questions

The concept of inclusion in education refers to the equal participation of children with disabilities in the educational process regardless of their individual differences and difficulties (Glotova et al., 2020). It aims, in other words, to create a school where all children will be provided with equal opportunities for cognitive and social development. By inclusion, that is, each student, who integrates into a group, affects and is affected by it with the processes of interaction and experiences himself alongside the other members of the group (Nilholm, 2020). The concept of inclusion is therefore not only about physical inclusion in a class, but about processes of socialization through interaction. The purpose of this scoping study was to examine the role of the teacher assistant in the inclusion of students with special educational needs in the classes of mainstream schools. To highlight (or to unfold) the multiple roles that a teacher assistant has in the inclusive mainstream classroom, a scoping review study will be conducted (Ainscow et al., 2019). The research question of the scoping study is the following:

What is the role of the teacher assistant on improving inclusion of students with special educational needs in mainstream schools?

We expect that the results of the scoping study will provide us with useful information about the role of the teaching assistant in the smooth integration of students with special educational needs and whether this role is ultimately determined by the respective legal framework and educational conditions of each country. Given the aforementioned, the present thesis would stress the importance of teacher assistant on the quality of inclusion and postulate that by reaching equitable quality education by means of the teacher assistant. In case this teacher assistant implementation is successful, it is very likely that the academic achievement will be fostered.

1.3 Research methodology

The scoping review used as a method to conduct the study. According to Munn, Peters and Stern (2018) the bounded literature review is a type of literature review to determine the scope or coverage of a body of literature and provide clear indications of the volume of literature and available studies on a given topic. It is a method that is useful for examining the missing gaps and understandings of teacher assistant's roles in multiple educational contexts.

The search for articles was carried out in valid scientific databases, to retrieve scientific research. In particular, the search will be made in the databases Scopus, MEDLINE, Web of Science, APA PsyInfo, SocINDEX, ERIC. and Google scholar, using a set of key phrases that correspond to the content of the search topics. The reference lists of the included studies will be checked to identify additional studies relevant to the topic (backward search) and in addition, relevant studies that cited the included studies will be checked using the Google Scholar forward search.

The keywords essentially refer to the four main thematic units of the subject under study, namely «teacher assistant», «inclusion», «students with special educational needs» and «academic achievement». The keywords will be combined using the AND and OR logical operators to derive the search strategy. The search terms are: ("teacher assistant" OR "teaching assistant") AND ("inclusion" OR "inclusive") AND ("students with special educational needs" OR "students with SEN") AND ("academic achievement" OR "academic performance").

Studies involving theoretical research, reviews of other research, commentaries-critiques of authors and books will be excluded. Also, studies will be excluded if their full text is not available and if they are not fully written in the English language. In German, French, Spanish or Dutch journals there might be a summary in English, but that is not good enough to include it in the scoping review.

The scoping methodology includes the following steps (Daudt, van Mossel & Scott, 2013).

1. Defining the research question: The first step in conducting a scoping review is to define the research question or topic that will be the focus of the review. The research question should be broad enough to allow a comprehensive assessment of the available literature but narrow enough to provide a clear focus for the review.

2. Identifying relevant studies: The next step is to identify the relevant studies to be included in the review. This involves conducting a comprehensive search of the literature using a range of databases, search engines and other sources.

3. Selection of studies: Once relevant studies have been identified, the next step is the selection of studies to be included in the review. This involves applying inclusion and exclusion criteria to the search results to identify the most relevant studies. At this stage, the snowballing methodology was also used to find additional articles that referred to the selected articles.

4. Mapping the data: The next step is to extract the data from the selected studies and map them in a way that facilitates analysis. This includes developing a charting form or tool that captures key information from each study, such as study design, population, intervention or exposure, outcomes, and key findings.

5. Collecting, summarizing and reporting the results: Once the data has been mapped, the next step is to classify, summarize and report the results. This includes identifying common themes and patterns in the data, synthesizing the findings from the selected studies, and presenting the results in a way that is accessible and useful to stakeholders (Daudt et al., 2013).

In Figure 1 the PRISMA flow of scoping review is presented. Starting from 64 studies via the databases and adding 18 studies by snowballing, and after screening the records 21 studies were included in this scoping review (see Figure 1).
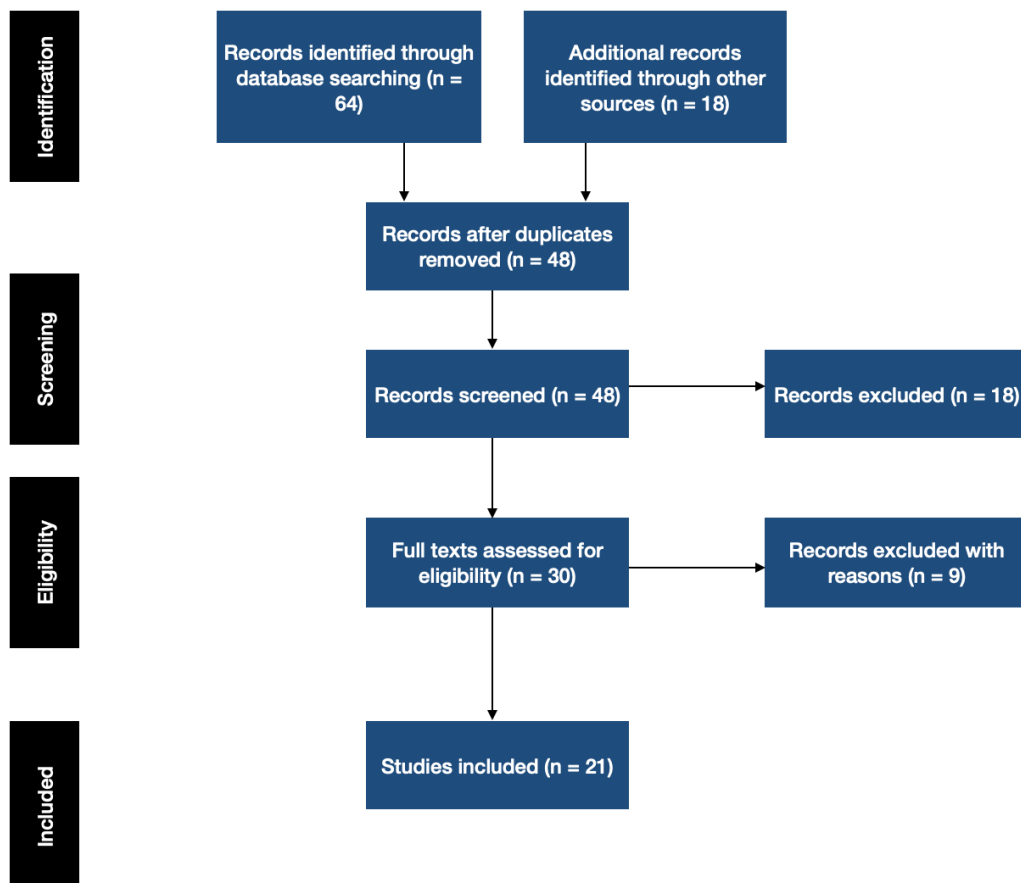

Figure 1. PRISMA Flow Diagram for the scoping review process

2. Theoretical background and policy-related background on Special Education and Inclusion

2.1. Special education evolution

Special education was originally created and developed in order to respond to the needs of children and adolescents with disabilities, who could not cope with the demands of the general school and to be educated with the rest of the children in the context of the school class. However, the study of people with disabilities exclusively in special schools began to be accused of reproducing intense forms of marginalization and exclusion of these people from society as it contributed to their stigmatization (Gargiulo & Bouck, 2016). The creation of special schools and special structures that base the smooth functioning of the educational system on the exclusion of certain children were questioned, as they led to the labeling and categorization of children based on certain common characteristics, resulting in the creation of stereotypes (Haug, 2016).

The strategy of inclusion or integration was adopted by Western countries in the last decades of the 20th century, with the establishment and operation of autonomous departments for children with special educational needs. These departments operated in the area of the ordinary or general school but followed their own - specially designed - syllabus. These students in their free time (such as during breaks or free play) had the opportunity to participate in activities together with their classmates who were of 'typical development', with the ultimate goal of their essential inclusion (Francisco et al., 2020). However, unlike the inclusive education that we will see next, this practice was more in the form of a simple visit and led to stigmatizing or even excluding these children, with all that this implies (Gargiulo & Bouck, 2016).

In 2017, the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2017) reported that students with disabilities are less likely to complete primary or secondary school in many countries around the world. In addition, Article 24 of the United Nations Convention on the Rights of Persons with Disabilities (2006) states that countries around the world must ensure that students with disabilities receive free, inclusive and appropriate education in primary and secondary education. Although this is the mandate, little has been published about legislative and policy efforts and the implementation of services and supports for students with SEN around the world (United Nations, 2006).

2.2 Inclusion and Inclusive Education

The term inclusion refers to the placement of individuals, who have separate and different social, biological and psychological characteristics, within the wider group - class, acquiring and playing a role within it. This placement takes place in mainstream schools attended by their peers with the same curriculum (Graham, 2020). The theoretical framework of values of inclusion is democracy, respect for human rights, equal opportunities, but also the acceptance of each being an important and separate member of society (Wrigley, 2003). According to Booth and Ainscow (2011) the process of inclusion is related to increasing participation and equal opportunities for students, while providing appropriate support to school units with the aim of responding in the most effective way to diversity, interests and the skills of children with special educational needs and/or disabilities. Also, Nilholm (2020) state that the inclusion process is an attempt by schools to respond to all students individually by revising the organization and provision of the curriculum and increasing its capacity to accept as many children as wish to study.

Educational inclusion is widely applied in the developed countries of the world such as the USA, Australia, Canada and most European countries (Soriano et al., 2017; Ramberg & Watkins, 2017; Loreman, 2013), while the in recent years there have been steps of its development in developing countries such as those of Asia, Africa, Eastern Europe (Boyle et al., 2020; Stepaniuk, 2016; Kozibroda et al., 2020).

More in developed countries as reported by Soriano et al. (2017) systems for educational inclusion include expenditures that complement the general educational framework, specialized support and means to reduce and/or compensate for the functional consequences of different disabilities, financial means and support of families of students with disabilities, accessibility of buildings or transport, a special framework of additional funding for those students with disabilities who cannot cope with the difficulties of general education and require separate provision. Also within these systems, significant progress is being made in the cooperation of general and special education teachers who support students with special educational needs (Yeo et al., 2016), an encouraging fact if we think about the established perception that classroom teachers have of considering them as their own personal spaces which they share with students (Mesiou, 2016; Ramberg & Watkins, 2017).

According to Genova (2015) and Amor et al. (2018), some countries such as Italy, Greece, Cyprus aim to include all students, others such as Finland, the United Kingdom, Ireland aim to educate students with disabilities between the general education system and the special education teachers. Finally, in Switzerland, Netherlands and Belgium there are two separate education systems: on the one hand the general system, on the other the separate school and separate special classes for students with disabilities.

It is therefore observed that efforts to achieve the goals of educational inclusion lead to different educational settings and results in different countries. That is, there is no model of educational inclusion that fits every country.

2.3. Declarations and inclusive agreements

Both at the European and international level, there are many conferences, declarations, resolutions and reports concerning special education, disability and the inclusive education of people with special educational needs and/or disability. The aim of all of these is to raise political awareness in the countries, to inform them about respective issues and to jointly shape and promote a single reference framework (Graham, 2020).

This first UNESCO declaration is considered of utmost importance, given that it promotes an innovative and equal education at all levels which also extends to issues of learning social skills for everyday life (UNESCO, 1994). In addition, its provisions include children exposed to risk factors (hunger, poverty, war, etc.). Respecting human rights and diversity, ensuring an inclusive system and developing the mental, physical and intellectual potential of all children are the guiding principles of the declaration (UNESCO, 1994). In addition, it promotes an individualized curriculum that will concern all students and a shared, equal life and learning for all. The Salamanca Declaration set the goal of creating a school for all, where discrimination between students will be increasingly limited, until it is eliminated. Thus, from 1994 onwards, many institutions of European states began to be more friendly towards students with special educational needs and envision a school community of coexistence and co-creation (Ainscow et al., 2019).

All European countries have now ratified the Salamanca Declaration and the UNESCO Framework for Action on Special Education (2017). It is a collective declaration that is a key point of reference for the work of special education in the context of the politics of many countries in Europe and beyond. In the United Nations declaration (2017), the participating states highlighted the need to create an equal education system

for all. They sought to protect the mental, physical and social rights of people with special educational needs through the formulation of individualized and targeted educational programs (United Nations, 2017).

All of the above contributed decisively to the undertaking of measures to provide equal opportunities in education and, therefore, to the establishment of school and social integration in several European states. The medical model of disability was significantly reduced, giving space to social causes, perceptions around the respect and rights of people with special educational needs and/or disability evolved and the disability movement was strengthened (Ainscow et al., 2019).

2.4 Barriers to inclusive education

In all countries there seems to be a significant theoretical gap between the formulations of educational inclusion and its implementation in practice at school and classroom level (Haug, 2016; Graham & Jahnukainen, 2011; Das et al., 2013) starting from fact in the Salamanca Declaration itself rather than providing step-by-step instructions, it offered a loose framework for country governments to create inclusive education systems (Boyle et al., 2020). In the legislation of some countries, the term educational inclusion is not included at all in the corresponding text and in its place there are other terms to describe the placement of students with disabilities in general education (Shyman, 2015) or it is not defined as a stated goal at all, resulting in it creates many opportunities for different interpretations and a lack of commitments from governments on how it will be implemented in practice (Göransson et al., 2014; Okyere et al., 2018).

A serious obstacle is insufficient funding, lack of material resources, educational and learning materials, support staff, administrative and financial support from regional education offices for the effective implementation of educational inclusion for students with disabilities in many countries, mainly in developing countries (Engelbrecht et al ., 2015; Opoku et al., 2017; Anastasiou et al., 2015; Shyman, 2015). Many school buildings are unsuitable for the physical accessibility of students with disabilities (Fedulova et al., 2019; Genova, 2015) and their number is limited in rural and semi-urban settings where there is no easy access to transport (Hoppey, 2016). In these schools there are a small number of teachers and a very large number of students in mainstream classrooms leading students with disabilities to remain segregated within the classroom from their peers and

not receive the appropriate quality of teaching and support to meet their various needs (Armstrong et al., 2011; Göransson et al., 2014;).

The lack of knowledge and skills of teachers creates a problem to work with and support students with disabilities appropriately in their classrooms, especially for classroom teachers (Dudley-Marling & Burns, 2014; Opoku et al., 2017) as and in using a variety of teaching techniques or alternative assessment methods that meet the needs of students with disabilities (Anastasiou et al., 2015). Combined with the insufficient working conditions they experience to face the challenges of educational inclusion, they are led to negative attitudes and inappropriate behaviors towards students with special needs (Rapp & Corral-Granados, 2021).

The stereotypes and prejudices that still exist from the general population of society, mainly from the parents of children of typical development regarding the educational inclusion of students with disabilities, are another serious obstacle for its successful implementation (Djk & Balakrishnan, 2012). Such perceptions are based on deep-rooted historical, cultural contexts and experiences, caused by a lack of knowledge and understanding, and contribute to defining educational policies that hinder equal access to education (Hoppey, 2016).

Finally, an important barrier in the inclusion of students with special educational needs is the quality of services provided by teacher assistants (Blatchford et al., 2007). The quality of teacher assistant services can be determined either by their individual knowledge and skills (e.g. if they have insufficient knowledge they may provide low-quality services and this leads to unsatisfactory support for inclusion) or by their support from the state (e.g. very restrictive curriculum) as well as general education teachers (e.g., insufficient willingness to cooperate) (Blatchford et al., 2012; Webster et al., 2012).

From all the above important problems and obstacles that arise in the educational inclusion of students with disabilities at an international level, it can be concluded that there is still a long way to go until it reaches the point where its full implementation in practice is actually achieved.

3. Co-teaching and SEN students inclusion

3.1 Co-teaching in Inclusive Educational settings

In recent decades, as mentioned, there has been a global evolution of the inclusion of children with special educational needs in a form that has been called inclusive education or inclusive education. Inclusive education is a modern global trend, a new form of educational support for people with special educational needs. Its main characteristics are that children with and without special needs coexist in the same schools, in the same classes with their peers, participating in the teaching process according to their abilities and needs. In order to implement inclusive education, new teaching approaches are needed, such as cooperative teaching (Mitchell & Sutherland, 2020). Co-teaching is a teaching model that is applied to students with special educational needs within educational school structures/classes in which general and special education teachers share the responsibility of organizing, teaching and evaluating educational practices for all students (Kefallinou et al., 2020).

Co-teaching gives teachers the opportunity to share their knowledge. General education teachers have knowledge of the educational curriculum, while special education teachers have knowledge of educational processes for students with diversity. Thus, cooperative teaching enables teachers to support students both academically and behaviorally (Sileo, & Garderen, 2010). Through the learning process of co-teaching, students with special educational needs can benefit in academic areas, in their self-esteem and self-confidence, but also in their interaction with peers. Also, students who are at risk of learning failure can be helped as it will be possible to give them individualized attention and increased teaching time (Sileo, & Garderen, 2010; Tremblay, 2013).

In the existing literature, co-teaching has been described as an approach that includes four dimensions: (a) the dimension of cooperation between two licensed professionals with different specialties, usually a general education teacher and a special education teacher, (b) the dimension of co-delivery of teaching, as two teachers share the responsibility of teaching, (c) the dimension of diversity, as students with disabilities are taught with their peers without disabilities and (d) the dimension of a single physical space, where students with disabilities are taught with their peers without disabilities in a single shared classroom (Mavropalias & Anastasiou, 2016).

For the implementation of co-teaching model, it is necessary to fulfill certain conditions related mainly to the functioning of the school and the educational system. More specifically, it is necessary to formulate an appropriate educational policy and design educational programs where teaching methods and social attitudes will have disability as a key pillar (Scruggs & Mastropieri, 2017)

First, an educational policy must be established by which schools will become organizations ready to welcome every child. In particular, schools need to be modified in order to become accessible to children with disabilities and to be staffed with special educators. (Scruggs & Mastropieri, 2017). Ainscow (2004) mentions five measures which help to change school policy: 1) In the process of making decisions and formulating school policy, the participation of both teachers and students, parents and community members is necessary, 2) Guidance from the leadership of the school unit, cooperation and camaraderie to solve all problems collectively, 3) Joint planning of school programming with the participation of all staff and commitment to its observance, 4) Development of forms of communication of the school staff and encouragement to take initiatives in the teaching process and 5) Reflection on the teaching practices used with the aim of improving the educational product provided.

In addition, the educational program must have individualized goals and be characterized by flexibility, enabling fellow students to adapt the material according to the needs of each group of students. A school unit based on the philosophy of co-education beyond the learning part must also develop the mechanism of socialization by teaching social skills. Students learn their rights, their obligations and assume responsibilities in a democratic environment, thereby preparing for their future in social life (Iacono et al., 2021).

An important condition is also the teaching methods applied in a co-educational school, where they should be adapted to the educational needs of the students, making use of the abilities and talents of each student, with the aim of children with special educational needs and/or disabilities to reach their same goals as their classmates. Thus, a child-centered approach is adopted with active participation and interaction from children, rather than a teacher-centered approach. (Ainscow, 2004).

3.2. Types of Co-teaching

According to researchers there are six basic types of co-teaching based on research. Each of these model-types can be adapted according to the needs of the students and the specific unit of the course. These formulas are also used in selected research mathematics practices for students with special educational needs.

One teach, one observe: According to this model, one teacher teaches the entire group of students and the other observes. For example, the teacher can direct a whole discussion group on a specific learning subject, such as e.g. in solving mathematical problems. The other teacher observes the students, in order to determine who participated in the discussion, and at the same time she tapes the children's words. Teachers in this phase pay special attention to who participated during the discussion, as children with special needs have a communication and learning problem, so this hinders their understanding. Through this method, it becomes clear which students need extra encouragement and support in order to contribute to the discussion process. Throughout the school year, teachers continue to use this method to collect some student data, observe and support their behavior, and evaluate them. The application of this type presupposes a clear definition of the type of observation and its objectives, as well as the utilization of the collected data in educational planning (Friend & Cook, 2013).

Teaming: This particular model refers to the case where teachers share equally all the responsibilities of a co-teaching program such as the time for planning and implementing all components of the learning process. In this case both teachers are teaching a large group of students either standing side by side in front of the class or when they complicate the teaching. According to Pugach and Winn (2011), group teaching is applied when teachers divide the new teaching material into smaller pieces which they manage to help the students in the learning process and then the students teach the new material to their classmates (Sileo, & Garderen, 2010). This type of co-teaching is not suitable for teachers with little experience, since they are not convinced of their teaching practices and find it difficult to support them against more experienced teachers (Friend & Cook, 2013).

Alternative teaching: In this model one teacher teaches a small group of 3-8 students, while the other teacher teaches the whole class (Sileo & Garderen, 2010). It is a particularly useful method that promotes systematic and individual teaching in a specific

academic field. It is a flexible form of teaching that is done for a specific purpose and goal (Friend & Bursuck, 2012). Thus, the class is divided into two subgroups, the large one, where one teacher teaches according to the syllabus, and the small one, where separate, intensive instruction is offered (Sileo & Garderen, 2010).

Parallel teaching: In the parallel teaching model, the two teachers teach the same subject at the same time, having divided the class into two heterogeneous groups. Educational planning is done jointly but implemented by each teacher individually (Sileo & Garderen, 2010). Thus, students are given more opportunities to participate, they have better access to the supervisory material and there is better interaction with the teacher (Tzivinikou, 2015). An important element for the successful implementation of this type of co-teaching is the reduction of classroom noise and the spatial arrangement that will be carried out, so as to ensure the smooth conduct of two parallel lessons (Sileo & Garderen, 2010).

Station teaching: According to Friend and Cook (2013) this model is used when teachers divide responsibilities in teaching content. In this model, teachers divide the class into small groups and each group engages in different activities that contribute to the learning goals of all children (Sileo & Garderen, 2010). This model is indicated when teachers have different teaching styles, when they do not know each other enough and find it difficult to formulate a common educational policy, and when they wish to repeat the curriculum (Mavropalias & Anastasiou, 2016).

One teach, one drift: This model is similar to the "One teaches, one observes" model with the difference that when one teacher is teaching the other moves around the classroom. This model enables checking of student understanding/assessment. It offers the possibility of a one-on-one approach and tutoring when a student is struggling with a particular academic concept (Sileo & Garderen, 2010).

In conclusion, the six main models of co-teaching seem to serve different purposes and services in their implementation. After all, inclusive education is about a constantly evolving and reshaping process, which aims to create a school environment that accepts diversity and offers equal learning opportunities. For this reason, and during its implementation, each educational system is called upon to adopt different educational practices that will respond to the resources it has and also to the student population it addresses.

3.3. Characteristics/ Conditions of co-teaching

A number of researches point to the basic conditions that must be applied in order to be able to implement the co-teaching model and come to the following basic characteristics: equal and clear roles and responsibilities between teachers, cooperation of teachers to plan the educational program of all students of the classroom, teacher training on issues related to the co-teaching model (Dieker, 2001; Scruggs & Mastropieri, 2017).

According to Friend and Cook (2013), co-teaching must be implemented by teachers who will act equally and have clear and equal roles. This is also confirmed by various studies that conclude that when the roles and responsibilities of teachers are appropriate, then the benefits for students are many (Dieker, 2001; Weiss & LIoyd, 2002). However, the majority of teachers' opinions agree that the share of involvement of general education teachers is greater than that of special education teachers. Moreover, from the research findings, it appears that when the roles of teachers are not clearly defined, one automatically overshadows the other. It is even more common for general education teachers to undertake the largest part of the teaching subject, compared to special education teachers (Iacono et al., 2021).

Also, in the co-teaching model, teachers must share teaching responsibilities and share time for curriculum planning. Dieker (2001), argues that co-teachers should decide, coordinate and plan educational action together. However, in order to implement this, the appropriate educational practices should be chosen, which will ensure the active and equal involvement of all the teachers of the class as well as all its students. Murawski and Hughes (2009) also agree with the above position, who add that another key characteristic of successful co-teaching is the evaluation of educational practices and their systematic restructuring. In his research, Mavropalias and Anastasiou (2016), emphasize that common teaching in practice is not always implemented according to the above criterion. In some cases, the general education teacher takes over the class entirely, while the special education teacher has a supporting role. After being instructed by the general teacher, he performs a specific project and supports only some students with special educational needs and/or disabilities.

Furthermore, the need to find time for the joint formation of the applied educational program seems to be imperative. In the research of Kohler-Evans (2006), teachers from different areas emphasize the importance of co-forming the educational

program. They even argue that the lack of time has significant negative effects on cooperation and communication between teachers. It is worth noting that in a survey conducted on 40 general education teachers, the need for shared time for planning on at least a weekly basis was among their first, basic aspirations (Iacono et al., 2021). They even argued that the lack of time probably comes from the insufficient allocation of time on the part of the management, a fact that is presented as an imperative need for improvement (Scruggs & Mastropieri, 2017).

3.4 The role of teachers in co-teaching

In inclusive education programs, an important element is the cooperation between teachers and students. Including children with special educational needs requires the collective effort of the entire school community, not just one teacher or one special educator. The separation of teachers' roles and the cooperation between teachers within the school community can affect the co-education of children either positively, which is also desirable, or negatively (Pancsofar & Petroff, 2016). Co-teaching will be successful when a clear distribution of roles is in place, as well as a correct and responsible cooperation between all the specialties within the school community. On the other hand, if none of these conditions are present, nothing can be accomplished successfully and only the child with special educational needs will suffer. (Kokko et al., 2021). This fact was also observed through a research carried out in France on teachers working in inclusive education schools, the fact of the unclear separation of roles was observed, with the result that the proper functioning of the inclusive education program is affected on the one hand and their cooperation but on the other hand there was strong concern on the part of the parents about the effectiveness of this program (Ebersold, 2003; Rönn-Liljenfeldt et al., 2023).

Certainly, the demands of inclusive education are enough and the uncertainty of the teachers regarding the effectiveness of these programs in the traditional conditions of conducting the course has been pointed out firmly and repeatedly. Most of their condemnation focuses on the inadequacy of teaching time, the possible unsuitable programs, but also the possible burden on the rest of the students in the class. However, the majority of teachers also report the lack of the necessary knowledge and skills that are essential for achieving inclusive education programs (Ebersold, 2003). However, the greatest number of deficiencies of most teachers does not concern the subject matter of

special pedagogy as much as that of teaching methodology, i.e. it is not connected with their readiness in relation to knowledge and educational programs but with their ability to approach different children with different methods (Iacono et al., 2021). What needs to be understood is that all students learn differently and therefore alternative methods to the objectives in the design of the teaching and a different supporting structure is needed. Furthermore, they mention as obstacles for the co-education of children with and without special educational needs the building infrastructure of the schools and the lack of appropriate supervisory means (Rönn-Liljenfeldt et al., 2023).

According to Rice and Zigmond (2000) establishing a meaningful role for the special education teacher in the co-teaching classroom is more feasible in primary education, where the curriculum is related to basic literacy skills, compared to secondary education. As they explain, due to the more specialized content of the curriculum and the pressure of exams in secondary education, the role of the special education teacher is more limited (Rice & Zigmond, 2000).

As pointed out by Scruggs et al. (2007) references to a subordinate role of the special education teacher are found in qualitative research on co-teaching in both primary and secondary education. Therefore, the inadequacy of knowledge on the subject matter of secondary education is not the only factor degrading the role of special education teachers (Scruggs et al., 2007). Other factors mentioned by Scruggs et al. (2007) is the traditional whole-class teaching followed by general education teachers, which does not allow for role reversal, as well as the sense of ownership expressed by general education teachers for their classroom.

3.5. Teacher assistant role on improving inclusion of students with special educational needs in mainstream schools

The implementation of co-teaching is considered successful and offers high-level services to students when educational and social benefits can be made available to them directly (Sileo & Garderen, 2010). Despite the changes and arrangements that have been made according to legislative interventions, the full attendance of children with special educational needs in general classes is not seamless and without difficulties. These relate to issues concerning the development of the child's academic and social-emotional skills.

A large number of researchers consider cooperative teaching as one of the most effective and popular approaches to inclusive education and in general to alleviate educational inequalities for children with SEN (Butt, 2016). In particular, benefits are

reported in the field of writing and reading (Murawski & Hughes, 2009;0), in mathematics and physics (Rea et al., 2002) but also regarding children with SEN in preschool age, improvement in pre-academic skills (Sanders-Smith & Dávila, 2021)). However, although attending the mainstream classroom allows students with SEN to better access the curriculum (Sharma et al.., 2017), concerns have been raised that special education needs are being neglected in co-teaching (Scruggs et al., 2007).

Research has identified several reasons why students with disabilities encounter difficulties in general education classes, such as: a) understanding the content of texts in textbooks is difficult for children due to reduced reading ability (e.g. Ainscow, 2005; Bualar, 201) b) most typical cognitive activities are difficult for students with disabilities to understand (e.g., (Moriña, 2016)) and c) the amount of new vocabulary and terminology in school textbooks also makes it difficult for students with disabilities (e.g. Scruggs & Mastropieri, 2017).

In addition, students with learning disabilities have certain characteristics that negatively affect their attendance in general education classes, for example, they present significant problems in reading and writing, cognitive functions and metacognitive skills (Hallahan & Kauffman, 2006). Consequently, students with learning disabilities are less effective in using strategies and tend to have poorer self-regulation in planning, monitoring, and repetition during learning or problem solving (Kibby et al., 2004). Many of these children also have difficulty organizing their thinking, drawing conclusions, and lack effective strategies for processing and solving problems (Scruggs & Mastropieri, 2017; Meltzer, 1991).

Schools in the U.S. are looking for ways to stay "accountable" to the federal government's standards for all students while providing individualized education to children with learning disabilities because they cannot adequately meet high-level tests (Fuchs & Fuchs, 2001). Because of the need for these children to meet high-stakes tests that emphasize content, many positive and social studies teachers rely on books as their primary source of information (Iacono et al., 2020). As a result, students with reading difficulties have difficulty understanding the material taught (Scruggs & Mastropieri, 2017).

On the other hand, the physical presence of two teachers in the same classroom means reducing the ratio of students per teacher. Students have the opportunity for better support, and there is also the opportunity to make necessary modifications to the

classroom and the curriculum to help students understand new knowledge or behavioral issues (Jurkowski et al., 2020; Mavropalias & Anastasiou, 2016).

Students with low performance are favored by the practices and techniques of co-education, since with the modifications of the syllabus, alternative teaching methods and the presence of special staff, the cohesion of the class becomes greater (Pancsofar & Petroff, 2016). All students, even the "good ones," are required to participate in enriched tasks, while students at risk of falling behind in school receive extra support to improve their performance (Friend & Cook, 2013). Thus, the learning environment is improved for all students, while at the same time the ratio of students per teacher decreases, making the process easier and more efficient. (Mavropalias & Anastasiou, 2016).

In the application of co-teaching, various interventions are implemented in subjects to improve the academic performance of these students, such as: a) learning among students in the classroom, b) strategies for understanding texts , c) mnemonic strategies, d) repetitive activities and e) improvements in study guides (Fuchs & Fuchs, 2001; Sharma et al., 2017; Strogilos & Stefanidis, 2015).

In addition, Scruggs and Mastropieri and (2017) summarized research on the education of children with disabilities in mainstream classrooms and concluded the following: a) study guides and text enhancements have been shown to have a positive effect on children's learning, behavior and motivation, b) teaching mnemonic strategies is useful for learning the language lesson and c) curricula based on experiential activities and individualized educational programs were generally effective for children with and without special educational needs.

Thousand, Villa and Nevin (2006) also state that co-teaching offers students the opportunity to benefit from the unique and specialized knowledge of each teacher, while at the same time, during the teaching process, the two teachers are role models for the students, so that to develop cooperation skills. In addition, flexibility in teaching organization and group formation reduces students' waiting time and increases their time engaged in activities (Thousand et al., 2006).

Scruggs, Mastropieri and McDuffie (2007) collected and summarized 32 studies related to co-teaching by conducting a meta-synthesis of qualitative research, with the aim of highlighting different aspects of co-teaching. As found by Scruggs et al. (2007), the findings of the relevant research highlight the perception of teachers, students and administrative staff that co-teaching is beneficial for the academic and social development of all students, as well as for the professional development of teachers.

Also, Keefe and Moore (2004) reported positive outcomes for students participating in co-teaching classrooms. Students with special educational needs show improved performance in the academic field, compared to if they attended independent special education units.

In a study by Koster, Pijl, Nakken and Van Houten (2010) it is stated that the placement of a disabled student in general education does not automatically ensure his social participation in the environment he is in. The child may face difficulties from limited friendships and lack of acceptance from his classmates. Nevertheless, children with disabilities in mainstream classrooms are given the opportunity to interact with their peers without disabilities, cooperate and share during their learning experiences. Also, they are offered various opportunities for social integration through activities and events (Lehane & Senior, 2019).

Ainscow (2005) refers to social integration as the situation where each student is an accepted member of the group to which he belongs, has formed at least one active friendship, and participates actively and equally in classroom activities. Social integration is therefore linked to the friendships developed by peers, to the acceptance of classmates, but also to the students' self-perception regarding the degree of acceptance by others.

For students with disabilities, educational inclusion and co-teaching is mainly associated with positive (or neutral) effects on their academic achievements, mainly in the cognitive domain (Ruijs & Peetsma, 2009; Justice et al., 2014; Herpratiwi, 2018). It helps them to acquire quality education, expand the applied learning strategies, easily achieve the educational goals of the personalized teaching program, improve their academic performance and their participation in the educational process (Padeliadu et al., 2014). This can also happen outside the classroom (Herpratiwi, 2018). Similar results also exist in the social sector. In co-teaching model students with SEN have many opportunities for social interaction with typical development students, lead to better and developed social skills, behavior and self-esteem in social relationships (Padeliadu et al., 2014; Schwab, 2015; Taub & Foster, 2020). The progress they generally make in these two areas is significantly greater than when placed in special education settings (Kleinert et al., 2015; Dessemontet et al., 2012).

In addition, the child's limited experience of the world is strengthened and expanded and it is given the opportunity for self-determination. That is, to have the right to express himself, to control his life but also to be able to live under "normal" living conditions. Self-determination is a need for every human being (Padeliadu et al., 2014.

Also, children in general education classes are taught important skills and concepts for their action as future adults and develop skills to solve various problems (Scruggs & Mastropieri, 2017).

Finally, according to a study by Dahlberg and Hoover (2003), in a co-teaching class it is possible for a student who may have a personal conflict with a teacher to seek emotional or academic support from the other teacher. In the same study it is stated that the presence of two teachers in the same class reduces the number of disturbances and risks that occur within it and promotes a good school climate.

3.6. Barriers in co-teaching process which affect inclusion of students with special educational needs in mainstream schools

The relationships that develop between general and special education teachers seem from research findings to be not good, which affects the development of a co-teaching (Angelides, Constantinou, & Leigh, 2009; Bualar, 2016). In Smith and Leonard (2005) research, general and special education teachers stated that they have experienced conflicts with each other due to incompatible opinions regarding how cooperative teaching should be implemented and also because of their unclear responsibilities.

However, apart from the relationships that most often act as obstacles to the implementation of cooperative teaching, other factors that make it difficult to implement are the planning of the teaching and finding time. The institutionalized Analytical Curriculum combined with the limited time does not allow the development of cooperations between teachers and the taking of initiatives to differentiate the learning process, which will promote learning and create equal academic opportunities for all (Fuchs, et al., 2010). In the majority of relevant research, teachers report that they do not have enough time for cooperation and joint planning of teaching (Hamilton Jones & Vail, 2014; Mulholland & O'Connor 2016; Strogilos & Stefanidis, 2015; Strogilos & Tragoulia 2013).

Lack of training also seems to be a factor that can be seen as an inhibitor to the development and implementation of cooperative teaching. After all, an essential element of the effective implementation of cooperative teaching is the correct and comprehensive education and training of teachers about it. Various researches have shown that for special education teachers this lack is a factor that prevents general education teachers from working together to implement cooperative teaching (Duran et al., 2019; Kokko et al., 2021). It is important that both general education teachers and special education teachers

have been taught and trained on the principles of cooperative teaching, the implementation models and related strategies both at the level of study and at the level of training (Pugach & Winn, 2011).

Finally, a very important obstacle to the provision of equal opportunities in education and, consequently, to the development of cooperative teaching, is the lack of training of all involved (parents, local bodies, even the administration of the school unit) in matters of managing diversity, providing equal opportunities as well as in matters of developing cooperative teaching and program design (Bualar, 2016). Although there is often a provision in the state policy for the training of teachers and all those involved in the learning process, this is done only at a theoretical level, without providing teachers and others with additional guidance for the application of theoretical knowledge in everyday school work. reality, with the result that this knowledge of teachers and all those involved does not find a place for action in the school context (Mofield, 2019)

Whatever the factors that contribute to the impossibility of implementing co-teaching, which is undoubtedly a demanding and time-consuming process, the school space provides opportunities for inclusive education, for the development of cooperative relationships and for the implementation of teachings, such as the cooperative one that includes the entire student population and provide equal opportunities for all. The point is, both teachers and all those involved in the learning process understand the importance of a common vision and cooperation, so that school units develop and improve, like all living organisms.

4. Discussion and conclusion

4.1. Discussion

The purpose of this scoping study was to examine the role of the teacher assistant in the inclusion of students with special educational needs in the classes of mainstream schools. The research question of the scoping study was the following: «What is the role of the teaching assistant in improving the inclusion of students with special educational needs in general schools?»

The idea of the effective inclusion of children with special educational needs and/or disabilities in the common school and of ensuring the necessary educational and social support has been enthusiastically supported in our country in recent decades (Glotova et al., 2020). It is scientifically documented that inclusive education has significant benefits for all students (with and without special needs), teachers, and the wider social environment (Shyman, 2015). During the implementation and application of inclusive education, students with special educational needs have the opportunity to coexist and interact within the school environment, avoiding isolation and exclusion from the educational process (UNESCO, 2017). Co-teaching is an alternative form of teaching, according to which two or more teachers work together with the aim of teaching a different, mixed group in the same educational space. These teachers come from the field of general and special education, where cooperation between them has been advocated for many years as a possible way to improve student achievement (Friend & Cook, 2013).

This specific educational approach offers students a multitude of educational options, modernizing programs, changing the way of thinking towards disability and at the same time imparts the appropriate teaching skills to the teachers. Co-teaching, therefore, has the potential to create several positive effects in the field of education, both for teachers and students. The group effort and cooperation of the teachers develops, as at the same time the transmission of ideas, experiences and help towards the enterprise of taking some risk comes to the surface (Webster et al., 2012). In particular, students with disabilities or special educational needs derive several benefits through their participation in the general education curriculum. Of course, the use of co-teaching contributes directly to this fact. As for the teachers who are involved in the institution of co-teaching, they ensure multiple educational advantages on their part. In other words, they master the necessary techniques and skills that are fundamental in the field of special education but at

the same time create the necessary educational environment for students with special educational needs (Blatchford et al., 2012).

Many studies have reported that co-teaching works as a helpful tool for teachers. Specifically, it was observed that several teaching techniques were used, the teachers gained more teaching experience, and at the same time a more positive image was created towards the implementation of teaching. The development of positive attitudes, the direct cooperation of the two teachers to solve possible problems in the educational process and the correct communication between them, can sufficiently contribute to the formation of a favorable climate during the co-teaching and inclusion of students with SEN (Friend et al., 2010; Iacono et al., 2021; Jurkowski et al., 2020; Kohler-Evans, 2006; Lehane & Senior, 2019; Mavropalias & Anastasiou, 2016; Mulholland & O'Connor, 2016).

Many benefits are especially noted in the educational course of students with special educational needs or disabilities. It is observed that the co-existence of two or more teachers, as required by the institution of co-teaching, reduces the proportional number of students-teachers, as the students respond better to the learning content and at the same time their participation time increases. Also, co-education helps to reduce the costs incurred by school programs, since students who would otherwise have to join a special class to receive the necessary special training, can thus spend most of their time in a classroom, as it is the typical school classroom. All of the above can ultimately contribute significantly to the better inclusion of students with SEN (Rice & Zigmond, 2000; Rönn-Liljenfeldt et al., 2023).

SEN students supported by co-teaching show progress on a social-emotional level, academically, individually and in their autonomy. Also, the institution has a positive impact on students without disabilities as they can be supported academically by the second teacher, become aware of issues of diversity and develop their social skills from their interaction with students with disabilities. Teachers working in parallel support also improve their professional skills due to the high demands of their work. The benefits are also visible to the families of the students who are supported, but also to all those involved who are called to cooperate and develop their cooperation and communication skills as well as their inclusive culture (Mavropalias & Anastasiou, 2016; Pancsofar & Petroff, 2016).

Therefore, the primary concern of co-teaching is not the integration of children with mild difficulties in the general school, but the adaptation of the school and the change of culture in the context of the school and by extension the wider community (Ainscow et

al., 2004). Co-teaching aims to reduce the stigma of children with special educational needs and/or disabilities who attend general school, as well as to alleviate difficulties (Mavropalias & Anastasiou, 2016). A key concern, therefore, is that all students, including students with special needs, can develop to the highest degree their skills in the academic, behavioral and social domains (Sileo & Garderen, 2010). The mainstream school environment offers more opportunities for social inclusion to children with special educational needs and/or disabilities. The goals of co-teaching can be summed up in strengthening social participation and improving the school performance of students with special educational needs and/or disability (Scruggs & Mastropieri, 2017).

In conclusion, a way of providing educational services to children with special educational needs aimed at alleviating the above problems, is the implementation of co-teaching. Co-teaching is an attractive concept because general education teachers work together with special education teachers or teachers who specialize in improving speaking and writing, as well as other professionals, to achieve instructional goals related to the needs of students. of education, if deemed necessary. In this way, the students' problems and difficulties (e.g. low academic performance, social isolation, etc.) are reduced, since there is the special teacher, who teaches together with the class teacher who may not have the academic background and the skills required to meet the needs of the whole class.

Co-teaching provides services to students with disabilities or other students with special educational needs as part of mainstreaming practices. There are many benefits for children with special educational needs, such as reducing stereotypes about them, increasing peer acceptance and improving their understanding of them. At the same time, due to the benefits arising from co-teaching, teachers, students and also their parents recognize its importance as an inclusive practice. Due to the implementation of co-teaching, classrooms become diverse, as a large number of students with special educational needs move from self-contained special classes to general classes and coexist with their peers without disabilities.

4.2. Suggestions for improving co-teaching

Co-teaching is a service delivery option designed to accommodate children with special educational needs in an inclusive classroom. For co-teaching to be effective, the two co-teachers must "co-plan, co-direct, and co-assess" the group of children with disabilities in

the same general classroom. During cooperative actions various problems may arise. Dealing with such problems by the partners must be done in a structured way. Similarly, general and special education teachers can find solutions, using some problem-solving models. A classic way of dealing with such problems and includes seven steps:

1. identifying the issues;

2. development of alternative approaches;

3. analysis of the benefits, but also the risks of each action,

4. selection of the action to be used;

5. taking action;

6. evaluation of the results of the action,

7. taking responsibility for the effects of the action and correcting the potentially negative consequences.

The implementation of co-teaching develops on three pillars: (a) planning, (b) teaching, (c) evaluation. **Planning** is an important factor in the success of the co-teaching program. It enables teachers to distribute assignments, prepare the lesson, make any necessary modifications to the curriculum, select supervision materials and books, select homework, so that all students can participate in the learning processes. The ideal co-planning based on the curriculum and children's needs should enable teachers to be able to respond to activities on a weekly basis. The appropriate time of the joint meeting can help teachers to choose the appropriate co-teaching model, the most productive school programs and goal setting (Dove & Honigsfeld &, 2008). Teachers who participate in co-teaching programs have reported that they do not have sufficient time for planning especially in secondary education (Keefe & Moore, 2004; Scruggs, & Mastropieri, 2017). In particular, when the special education teacher cooperates with more than one teacher, then implementing joint planning is difficult, if not impossible, to accomplish. A solution to this issue can only be given when the co-teachers decide that the implementation of their work planning will take place before or after the end of school hours. Teachers reported that it takes 45 minutes a day to plan their co-teaching (Murawski & Hughes, 2009).

According to Fennick (2001), it is useful for the special education teacher to carry out the following actions before the start of teaching:

▪ To investigate the goal setting set by the general education teacher.

▪ To record the ways and forms of teaching that the general education teacher usually uses.

- To investigate which of these forms are often difficult for students with disabilities.
- To become knowledgeable, even to a certain extent, of the content of the courses taught, especially in secondary education.
- To organize the way and method of teaching, which best meets the needs of the students it supports.
- To decide the ways of evaluating the progress of his students.
- Develop classroom rules for behavior management.
- To plan and organize the teaching space in the classroom.

Also, the general education teacher should, before starting the co-teaching, study through the literature issues related to the diagnosis of the child with special educational needs attending the mainstream class, as well as the philosophy and the way the co-teaching model works . In this direction, he can cooperate and draw information from the special education colleague (Scruggs, & Mastropieri, 2017).

The planning also includes the way the co-teachers will decide to communicate with the parents. In a cooperative action, Sileo (2011) suggests that co-teachers first discuss and agree how they will communicate with the parents of the children they support. Effective strategies for communicating with parents include:
- use of various methods of communication (e.g. e-mail),
- invitation to parents to attend school events, information to parents regarding the outline and of study programs,
- provision of any resources and means by parents to support their children.

Communication between teachers and parents is necessary to structure powerful cooperative relationships and at the same time promoting co-teaching relationships that ultimately benefit students. Both teachers can update parents about their children's academic performance, social development, and other issues arising from the students' attendance in the general classroom. At the same time, teachers can be informed about parental concerns and expectations that parents have from their children's participation in parallel support.

Also the co-teachers should discuss and plan issues concerning their actions in the general classroom. Many of them may have worked alone in a classroom and as a result have no experiences of co-teaching. Still, it is not so easy to share responsibility for educational decisions, curricula and teaching methods. Critical topics for discussion are the following (Sileo, 2011):
- planning the teaching of knowledge subjects,

- preparation and organization of educational material,

- choice of educational methods to be used for children with special educational needs,

- identification of assessment procedures related to the acquisition of knowledge, skills and abilities,

Finally, before co-teaching begins, it will be positive for the co-teachers to discuss with the school administration how they will secure materials, resources, modification to the timetable, if required, for clarifications related to the implementation of the co-teaching etc. It is taken for granted that teachers will have agreed on what is needed to improve co-teaching and how this will affect the educational outcomes of their students.

During **teaching**, co-teachers should check that they adequately address all students in the class. That is to say that high-achieving, medium-achieving, low-achieving students and those with other characteristics are included [H(igh achieving), A(verage achieving), L(ow achieving), and O(ther) – H.A.L.O] (Dieker & Murawski, 2003).

Also, it is important that when one teacher takes on the teaching of a new subject or skill, the co-teacher moves around the classroom to ensure that the lesson meets the needs of all students (Friend & Cook, 2013). Thus, when one teacher is teaching the students in the class, the other teacher should not be handing out grades, making photocopies, studying individualized curricula, etc.. Children should also be given the opportunity to take a break during the lesson, especially when the lesson is in the form of a lecture. Brain research shows that students can concentrate on a presentation for a maximum of 10-12 minutes (Dieker & Murawski, 2003).

The creation of a very good school climate by co-teachers is particularly important for children with and without special educational needs. When teachers use teaching methods, such as cooperative learning, mutual teaching, etc., they help children, among others, to evaluate their behavior individually or as a group. Effective co-teachers always speak in the first plural of "our students" and not "my child or your child." By differentiating children and assigning a portion of them to one teacher or another, children are labeled. The presence of two teachers in the classroom means that the potential for maximum involvement of all students in the processes involved in the teaching of a lesson is greatly increased. Differentiation of instruction helps to ensure that the needs of most children are met, as long as this differentiation is implemented with interesting activities.

It is important for teachers to identify the way each child learns. Specifically, 50% of students learn through visual and auditory learning (visual and auditory learners) and the other 50% through movement and touch (kinesthetic/tactile learners). Most teachers teach through the visual and auditory channels and this has the consequence that it is difficult for other children with different learning styles to understand the knowledge offered. Identifying children's learning styles allows co-teachers to use the corresponding teaching style to meet the needs of all their students (Murawski & Dieker, 2004).

It is important and useful for co-teaching that the teachers agree on a process of self-**evaluation** of their teaching, but also of the relationship between them. The collection of data from the students, such as their learning achievements, the recording of positive and negative behaviors and other elements related to the diagnosis of students with special educational needs, are particularly critical for the evaluation, i.e. whether the co-teaching was successful. The recording of this material is coordinated by both teachers (Murawski & Dieker, 2004). Once co-teachers have agreed on a date for this assessment discussion (at least once a month), they should focus on three questions:

1. Do co-teachers use the required strategies to promote success with all students in the classroom?
2. Does the role played by each teacher during the implementation of co-teaching make sense?
3. Do they have the evidence or indicators to show them that their classroom teaching was successful?

Finally, the two teachers should share equally in the success of their project. Co-teaching spreads when in an integrated school the benefits and successes of students and teachers are heard (Murawski & Dieker, 2004).

In order to ensure equal roles are assumed by the two cooperating teachers, Friend and Cook (2013) suggests the utilization of co-teaching types, which allow teaching to be carried out by both teachers, such as parallel teaching, station teaching, group teaching and the alternative teaching. Furthermore, Friend and Cook (2013) emphasize that the two teachers should discuss their roles in the classroom with each other in order to continuously improve and ensure that both are actively involved in teaching. The joint planning of teaching can also contribute to this, as it provides the opportunity for discussion and defining the responsibilities of each teacher (Friend & Cook, 2013).

In the area of inclusion, the development of meaningful cooperative practices presupposes addressing a deep-rooted perception, according to which students with disabilities and/or special educational needs belong to a different pedagogical category and, therefore, are the sole responsibility of special educators. The essential cooperation between specialists and general educators is based on the assumption of shared responsibility for the education of all students, including students with special educational needs.

4.3. Strengths and weakness of research

Although an effort was made to search the articles thoroughly, it is possible that not all those that were relevant were found, because there was no access to databases of scientific articles where assistance was required. It was not possible to access "locked" articles, that is, articles that required payment or an annual subscription that went beyond the official licenses and contracts of the University of Groningen. Thus, future research can expand the scope of the review, including more academic research databases. Potential limitations of scoping reviews are the insufficient methodological quality of the primary papers and systematic publication errors. An important advantage of a scoping review is that it allows a critical evaluation of published research consists of highlighting the contribution of published studies to the advancement of scientific knowledge in a specific field.

References[*]

Ainscow, M. (2005). Developing inclusive education systems: what are the levers for change? *Journal of Educational Change*, *6*(2), 109–124. https://doi.org/10.1007/s10833-005-1298-4

Ainscow, M., Booth, T., & Dyson, A. (2004). Understanding and developing inclusive practices in schools: a collaborative action research network. *International Journal of Inclusive Education*, *8*(2), 125–139. https://doi.org/10.1080/1360311032000158015

Ainscow, M., Slee, R., & Best, M. (2019). Editorial: the Salamanca Statement: 25 years on. *International Journal of Inclusive Education*, *23*(7–8), 671–676. https://doi.org/10.1080/13603116.2019.1622800

Amor, A. M., Hagiwara, M., Shogren, K. A., Thompson, J. R., Verdugo, M. Á., Burke, K. M., & Aguayo, V. (2018). International perspectives and trends in research on inclusive education: a systematic review. *International Journal of Inclusive Education*, *23*(12), 1277–1295. https://doi.org/10.1080/13603116.2018.1445304

Anastasiou, D., Kauffman, J. M., & Di Nuovo, S. (2015). Inclusive education in Italy: description and reflections on full inclusion. *European Journal of Special Needs Education*, *30*(4), 429–443. https://doi.org/10.1080/08856257.2015.1060075

Angelides, P., Constantinou, C., & Leigh, J. (2009). The role of paraprofessionals in developing inclusive education in Cyprus. *European Journal of Special Needs Education*, *24*(1), 75–89. https://doi.org/10.1080/08856250802596741

Armstrong, D., Armstrong, A. C., & Spandagou, I. (2011). Inclusion: by choice or by chance? *International Journal of Inclusive Education*, *15*(1), 29–39. https://doi.org/10.1080/13603116.2010.496192

Blatchford, P., Russell, A., & Webster, R. (2012). *Reassessing the impact of teaching assistants: How research challenges practice and policy*. Routledge.

Blatchford, P., Russell, A., Bassett, P., Brown, P., & Martin, C. (2007). The role and effects of teaching assistants in English primary schools (Years 4 to 6) 2000–2003.

Results from the Class Size and Pupil—Adult Ratios (CSPAR) KS2 Project. *British Educational Research Journal*, *33*(1), 5–26. https://doi.org/10.1080/01411920601104292

Booth, T. & Ainscow, M. (2011) *Index for Inclusion: Developing Learning and Participation in Schools*. Centre for Studies on Inclusive Education, Bristol.

*Bowles, D. R., Radford, J., & Bakopoulou, I. (2017). Scaffolding as a key role for teaching assistants: Perceptions of their pedagogical strategies. *British Journal of Educational Psychology*, *88*(3), 499–512. https://doi.org/10.1111/bjep.12197

Boyle, C., Anderson, J., Page, A., & Mavropoulou, S. (2020). The perpetual dilemma of inclusive education. In *BRILL eBooks*(pp. 253–256). https://doi.org/10.1163/9789004431171_015

Bualar, J. (2016). What has gone wrong with inclusive education in Thailand? *Journal of Public Affairs , 16* (2), σσ. 156-161.

*Butt, R. (2016). Teacher assistant support and deployment in mainstream schools. *International Journal of Inclusive Education*, *20*(9), 995–1007. https://doi.org/10.1080/13603116.2016.1145260

*Chopra, R. V., & Giangreco, M. F. (2019). Effective use of teacher assistants in inclusive classrooms. In *SAGE Publications Ltd eBooks* (pp. 193–207). https://doi.org/10.4135/9781526470430.n18

Dahlberg, K. & Hoover, J. (2003). The Effects of Co Teaching on K6 Student Discipline and Attendance. St. Cloud State University.

Das, A. K., Kuyini, A. B., & Desai, I. P. (2013). Inclusive Education in India: Are the Teachers Prepared?. *International Journal of Special Education*, *28*(1), 27–36. http://files.eric.ed.gov/fulltext/EJ1013694.pdf

Daudt, H., Van Mossel, C., & Scott, S. (2013). Enhancing the scoping study methodology: a large, inter-professional team's experience with Arksey and O'Malley's framework. *BMC Medical Research Methodology*, *13*(1). https://doi.org/10.1186/1471-2288-13-48

Dessemontet, R. S., Bless, G., & Morin, D. (2012). Effects of inclusion on the academic achievement and adaptive behaviour of children with intellectual disabilities. Journal of Intellectual Disability Research, 56(6), 579-587. https://doi.org/10.1111/j.1365-2788.2011.01497.x

Dieker, L. A. (2001). Collaboration as a tool to resolve the issue of disjointed service delivery. *Journal of Educational and Psychological Consultation*, *12*(3), 263–269. https://doi.org/10.1207/s1532768xjepc1203_06

Dieker, L. A., & Murawski, W. W. (2003). Co-teaching at the secondary level: Unique trends, current trend, and suggestions for success. *The High School Journal, 86*, 1-13.

Djk, C., & Balakrishnan, J. (2012). Inclusive Education for Students with Intellectual Disability. Disability, CBR & Inclusive Development, 23(2), 81-93. DOI: 10.5463/DCID.v23i2.111

Dove, M., & Honigsfeld, A. (2010). ESL Coteaching and Collaboration: Opportunities to develop teacher leadership and enhance student learning. *TESOL Journal*, *1*(1), 3–22. https://doi.org/10.5054/tj.2010.214879

Dudley-Marling, C., & Burns, M. B. (2014). Two perspectives on inclusion in the United States. Global Education Review, 1(1), 14-31. Retrieved from: https://files.eric.ed.gov/fulltext/EJ1055208.pdf

DuPaul, G. J., Volpe, R. J., Jitendra, A. K., Lutz, J. G., Lorah, K. S., & Gruber, R. (2004). Elementary school students with AD/HD: predictors of academic achievement. *Journal of School Psychology*, *42*(4), 285–301. https://doi.org/10.1016/j.jsp.2004.05.001

Duran, D., Corcelles, M., Flores, M., & Miquel, E. (2019). Changes in attitudes and willingness to use co-teaching through pre-service teacher training experiences. *Professional Development in Education*, *46*(5), 770–779. https://doi.org/10.1080/19415257.2019.1634631

Ebersold, S. (2003). Inclusion and mainstream education: an equal cooperation system. *European Journal of Special Needs Education*, *18*(1), 89–107. https://doi.org/10.1080/0885625032000042339

Engelbrecht, P., Nel, M., Nel, N., & Tlale, D. (2015). Enacting understanding of inclusion in complex contexts: classroom practices of South African teachers. *South African Journal of Education*, *35*(3), 1–10. https://doi.org/10.15700/saje.v35n3a1074

Fedulova, I., Ivanova, V., Atyukova, O., & Nosov, V. (2019). Inclusive education as a basis for sustainable development of society. *Journal of social studies education research*, 10(3), 118-135

Fennick, E. (2001). Coteaching an inclusive curriculum for transition. *Teaching Exceptional Children*, *33*(6), 60–66. https://doi.org/10.1177/004005990103300608

Francisco, M. P. B., Hartman, M., & Wang, Y. (2020). Inclusion and special education. *Education Sciences*, *10*(9), 238. https://doi.org/10.3390/educsci10090238

Friend, M., & Bursuck, W. D. (2012). *Including students with special needs: A practical guide for classroom teachers* (6th ed.). Upper Saddle River, NJ: Pearson Education Inc.

Friend, M., & Cook, L. (2013). *Interactions Collaboration skills for school professionals.* Boston, Pearson.

Friend, M., Cook, L., Hurley-Chamberlain, D., & MEd, C. S. (2010). Co-Teaching: an illustration of the complexity of collaboration in special education. *Journal of Educational and Psychological Consultation*, *20*(1), 9–27. https://doi.org/10.1080/10474410903535380

Fuchs, L. S., & Fuchs, D. (2001). Principles for the prevention and intervention of mathematics difficulties. *Learning Disabilities Research & Practice, 16*(2), 85–95. https://doi.org/10.1111/0938-8982.00010

Fuchs, L. S., Powell, S. R., Seethaler, P. M., Cirino, P. T., Fletcher, J. M., Fuchs, D., & Hamlett, C. L. (2010). The effects of strategic counting instruction, with and without deliberate practice, on number combination skill among students with

mathematics difficulties. *Learning and Individual Differences*, *20*(2), 89–100. https://doi.org/10.1016/j.lindif.2009.09.003

Gargiulo, R. M., & Bouck, E. C. (2016). *Special education in contemporary society: An Introduction to Exceptionality*. SAGE Publications.

Genova, A. (2015). Barriers to inclusive education in Greece, Spain and Lithuania: results from emancipatory disability research. *Disability & Society*, *30*(7), 1042–1054. https://doi.org/10.1080/09687599.2015.1075867

Giangreco, M. F. (2013). Teacher assistant supports in inclusive Schools: research, practices and alternatives. *Australasian Journal of Special Education*, *37*(2), 93–106. https://doi.org/10.1017/jse.2013.1

*Giangreco, M. F. (2021). Maslow's Hammer: teacher assistant research and inclusive practices at a crossroads. *European Journal of Special Needs Education*, *36*(2), 278–293. https://doi.org/10.1080/08856257.2021.1901377

Glotova, Z., Mutavchi, E., & Dragileva, I. (2020). The International Experience of Inclusive Education: Resources for Introduction. *Advances in Economics, Business and Management Research/Advances in Economics, Business and Management Research*. https://doi.org/10.2991/aebmr.k.200312.046

Göransson, K., & Nilholm, C. (2014). Conceptual diversities and empirical shortcomings – a critical analysis of research on inclusive education. *European Journal of Special Needs Education*, *29*(3), 265–280. https://doi.org/10.1080/08856257.2014.933545

Graham, L. J. (2020). Inclusive education in the 21st century. In *Routledge eBooks* (pp. 3–26). https://doi.org/10.4324/9781003116073-2

Graham, L. J., & Jahnukainen, M. (2011). Wherefore art thou, inclusion? Analysing the development of inclusive education in New South Wales, Alberta and Finland. *Journal of Education Policy*, *26*(2), 263–288. https://doi.org/10.1080/02680939.2010.493230

Hamilton-Jones, B. M., & Vail, C. O. (2014). Preparing Special Educators for Collaboration in the Classroom: Pre-Service Teachers' Beliefs and

Perspectives. *International Journal of Special Education*, *29*(1), 76–86. http://files.eric.ed.gov/fulltext/EJ1034079.pdf

Haug, P. (2016). Understanding inclusive education: ideals and reality. *Scandinavian Journal of Disability Research*, *19*(3), 206–217. https://doi.org/10.1080/15017419.2016.1224778

Herpratiwi, H. (2018). The effectiveness of the inclusive education model for students with special needs on cognitive learning achievement.Jurnal Pendidikan Progressive, 8(2), 97-108. DOI: 10.23960/jpp. v8.i2.201811.

Hoppey, D. (2016). Developing Educators for Inclusive Classrooms through a Rural School-University Partnership. *Rural Special Education Quarterly*, *35*(1), 13–22. https://doi.org/10.1177/875687051603500103

*Iacono, T., Landry, O., Garcia-Melgar, A., Spong, J., Hyett, N., Bagley, K., & McKinstry, C. (2021). A systematized review of co-teaching efficacy in enhancing inclusive education for students with disability. *International Journal of Inclusive Education*, *27*(13), 1454–1468. https://doi.org/10.1080/13603116.2021.1900423

*Jurkowski, S., Ulrich, M., & Müller, B. (2020). Co-teaching as a resource for inclusive classes: teachers' perspectives on conditions for successful collaboration. *International Journal of Inclusive Education*, *27*(1), 54–71. https://doi.org/10.1080/13603116.2020.1821449

Kauffman, J. & Hallahan, D. (2006). *Exceptional learners: An introduction to special education (10the Ed).* Boston: Allyan and Bacon education. Inc.

Keefe, E. B., & Moore, V. (2004). The Challenge of Co-Teaching in Inclusive Classrooms at the High School Level: What the Teachers Told Us. *JSTOR*, *32*(3), 77–88. https://eric.ed.gov/?id=EJ692470

Kefallinou, A., Symeonidou, S., & Meijer, C. J. W. (2020). Understanding the value of inclusive education and its implementation: A review of the literature. *Prospects*, *49*(3–4), 135–152. https://doi.org/10.1007/s11125-020-09500-2

Kibby, M. Y., Marks, W., Morgan, S., & Long, C. J. (2004). Specific impairment in developmental reading disabilities. *Journal of Learning Disabilities*, *37*(4), 349–363. https://doi.org/10.1177/00222194040370040601

Kleinert, H., Towles-Reeves, E., Quenemoen, R., Thurlow, M., Fluegge, L., Weseman, L., & Kerbel, A. (2015). Where students with the most significant cognitive disabilities are taught: Implications for general curriculum access. Exceptional Children, 81(3), 312-328. https://doi.org/10.1177/0014402914563697

Kohler-Evans, P. A. (2006). Co-Teaching: How to make this marriage work in front of the kids. *Education 3-13*, *127*(2), 260–264. https://www.dentonisd.org/cms/lib/tx21000245/centricity/Domain/900/CoTeachMarriage.pdf

*Kokko, M., Takala, M., & Pihlaja, P. (2021). Finnish teachers' views on co-teaching. *British Journal of Special Education*, *48*(1), 112–132. https://doi.org/10.1111/1467-8578.12348

Koster, M., Pijl, S. J., Nakken, H., & Van Houten, E. (2010). Social Participation of Students with Special Needs in Regular Primary Education in the Netherlands. *International Journal of Disability, Development and Education*, *57*(1), 59–75. https://doi.org/10.1080/10349120903537905

Kozibroda, L. V., Kruhlyk, O. P., Zhuravlova, L. S., Chupakhina, S. V., & Verzhihovska, O. M. (2020). Practice and innovations of inclusive education at school. *International Journal of Higher Education*, *9*(7), 176. https://doi.org/10.5430/ijhe.v9n7p176

*Lehane, P., & Senior, J. (2019). Collaborative teaching: exploring the impact of co-teaching practices on the numeracy attainment of pupils with and without special educational needs. *European Journal of Special Needs Education*, *35*(3), 303–317. https://doi.org/10.1080/08856257.2019.1652439

Loreman, T. (2013). Measuring inclusive education outcomes in Alberta, Canada. *International Journal of Inclusive Education*, *18*(5), 459–483. https://doi.org/10.1080/13603116.2013.788223

*Mavropalias, T., & Anastasiou, D. (2016). What does the greek model of parallel support have to say about co-teaching? *Teaching and Teacher Education, 60*, 224–233. doi:10.1016/j.tate.2016.08.014

Messiou, K. (2016). Research in the field of inclusive education: time for a rethink? *International Journal of Inclusive Education*, *21*(2), 146–159. https://doi.org/10.1080/13603116.2016.1223184

Mitchell, D., & Sutherland, D. (2020). *What really works in special and inclusive education: Using Evidence-Based Teaching Strategies*. Routledge.

*Mofield, E. L. (2019). Benefits and Barriers to Collaboration and Co-Teaching: Examining perspectives of gifted education teachers and general education teachers. *Gifted Child Today Magazine*, *43*(1), 20–33. https://doi.org/10.1177/1076217519880588

Moriña, A. (2016). Inclusive education in higher education: challenges and opportunities. *European Journal of Special Needs Education*, *32*(1), 3–17. https://doi.org/10.1080/08856257.2016.1254964

*Mulholland, M., & O'Connor, U. (2016). Collaborative classroom practice for inclusion: perspectives of classroom teachers and learning support/resource teachers. *International Journal of Inclusive Education*, *20*(10), 1070–1083. https://doi.org/10.1080/13603116.2016.1145266

Munn, Z., Peters, M. D. J., Stern, C., Tufănaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, *18*(1). https://doi.org/10.1186/s12874-018-0611-x

Murawski, W. W., & Dieker, L. A. (2004). Tips and Strategies for Co-Teaching at the Secondary level. *Teaching Exceptional Children*, *36*(5), 52–58. https://doi.org/10.1177/004005990403600507

Murawski, W. W., & Hughes, C. E. (2009). Response to intervention, collaboration, and co-teaching: A logical combination for successful systemic change. preventing school failure: *Alternative Education for Children and Youth*, *53* (4), 267-277.

Nilholm, C. (2020). Research about inclusive education in 2020 – How can we improve our theories in order to change practice? *European Journal of Special Needs Education*, *36*(3), 358–370. https://doi.org/10.1080/08856257.2020.1754547

Okyere, C., Aldersey, H. M., Lysaght, R., & Sulaiman, S. K. (2018). Implementation of inclusive education for children with intellectual and developmental disabilities in African countries: a scoping review. *Disability and Rehabilitation*, *41*(21), 2578–2595. https://doi.org/10.1080/09638288.2018.1465132

Opoku, M. P., Agbenyega, J., Mprah, W. K., Mckenzie, J., & Badu, E. (2017). Decade of inclusive education in Ghana: perspectives of special educators. Journal of Social inclusion, 8(1), 4-20. Available at: https://eprints.utas.edu.au/25226/

Padeliadu, S., Papanikolaou, G., & Giazitzidou, S. (2014). Implementing inclusive education in Greece through co-teaching. InConference: 8th International Scientific Conference for Special Education and Rehabilitation, Belgrade, Serbia. Available   at: https://www.researchgate.net/publication/274380022_Implementing_inclusive_education_in_Greece_through_co-teaching

*Pancsofar, N., & Petroff, J. G. (2016). Teachers' experiences with co-teaching as a model for inclusive education. *International Journal of Inclusive Education*, *20*(10), 1043–1053. https://doi.org/10.1080/13603116.2016.1145264

Pugach, M. C., & Winn, J. A. (2011). Research on Co-Teaching and Teaming: An Untapped Resource for Induction. *Journal of Special Education*, *24*(1), 36–46. https://eric.ed.gov/?id=EJ926850

*Radford, J., Bosanquet, P., Webster, R., & Blatchford, P. (2015). Scaffolding learning for independence: Clarifying teacher and teaching assistant roles for children with special educational needs. *Learning and Instruction*, *36*, 1–10. https://doi.org/10.1016/j.learninstruc.2014.10.005

Ramberg, J., & Watkins, A. (2020). Exploring inclusive education across Europe: some insights from the European Agency Statistics on Inclusive Education. *Forum for International Research in Education*, *6*(1). https://doi.org/10.32865/fire202061172

Rapp, A. C., & Corral-Granados, A. (2021). Understanding inclusive education – a theoretical contribution from system theory and the constructionist perspective. *International Journal of Inclusive Education*, 1–17. https://doi.org/10.1080/13603116.2021.1946725

Rea, P. J., McLaughlin, V. L., & Walther-Thomas, C. (2002). Outcomes for students with learning disabilities in inclusive and pullout programs. *Exceptional Children, 68*(2), 203–222.

Rice, D., & Zigmond, N. (2000). Co-Teaching in Secondary Schools: Teacher reports of developments in Australian and American classrooms. *Learning Disabilities Research and Practice/Learning Disabilities Research & Practice*, *15*(4), 190–197. https://doi.org/10.1207/sldrp1504_3

Robo, M. (2014). Social inclusion and inclusive education. *Academicus*, *10*, 181–191. https://doi.org/10.7336/academicus.2014.10.12

Rönn-Liljenfeldt, M., Sundqvist, C., & Ström, K. (2023). Between vision and reality: Finnish school leaders' experiences of their own and teachers' roles in the development of co-teaching. *Scandinavian Journal of Educational Research*, 1–14. https://doi.org/10.1080/00313831.2023.2175247

Ruijs, N. M., & Peetsma, T. T. (2009). Effects of inclusion on students with and without special educational needs reviewed. Educational Research Review, 4(2), 67-79. https://doi.org/10.1016/j.edurev.2009.02.002

*Sanders-Smith, S. C., & Dávila, L. T. (2021). 'It has to be in a natural way': a critical exploration of co-teaching relationships in trilingual preschool classrooms in Hong Kong. *Journal of Multilingual and Multicultural Development*, 1–15. https://doi.org/10.1080/01434632.2021.1957902

Schwab, S. (2015). Social dimensions of inclusion in education of 4th and 7th grade pupils in inclusive and regular classes: Outcomes from Austria. Research in Developmental Disabilities, 43, 72-79. https://doi.org/10.1016/j.ridd.2015.06.005

*Scruggs, T. E., & Mastropieri, M. A. (2017). Making inclusion work with Co-Teaching. *Teaching Exceptional Children*, *49*(4), 284–293. https://doi.org/10.1177/0040059916685065

Scruggs, T. E., Mastropieri, M. A., & McDuffie, K. A. (2007). Co-Teaching in inclusive Classrooms: a Metasynthesis of Qualitative research. *Exceptional Children*, *73*(4), 392–416. https://doi.org/10.1177/001440290707300401

*Sharma, S., Ravikirti, N., Ali, A., Takhelmayum, R., Mahto, M., & Nair, R. (2017). Co-teaching: Exploring an alternative for Integrated curriculum. *Journal of the National Medical Association*, *109*(2), 93–97. https://doi.org/10.1016/j.jnma.2017.02.002

*Sharma, U., & Salend, S. J. (2016). Teaching Assistants in Inclusive Classrooms: A Systematic analysis of the international research. *Australian Journal of Teacher Education*, *41*(8), 118–134. https://doi.org/10.14221/ajte.2016v41n8.7

Shyman, E. (2015). Toward a globally sensitive definition of inclusive education based in social justice. *International Journal of Disability, Development and Education*, *62*(4), 351–362. https://doi.org/10.1080/1034912x.2015.1025715

Sileo, J. M. (2011). Co-Teaching: getting to know your partner. *Teaching Exceptional Children*, *43*(5), 32–38. https://doi.org/10.1177/004005991104300503

Sileo, J. M., & Van Garderen, D. (2010). Creating optimal opportunities to learn mathematics. *Teaching Exceptional Children*, *42*(3), 14–21. https://doi.org/10.1177/004005991004200302

Smith, R., & Leonard, P. (2005). Collaboration for Inclusion: Practitioner Perspectives. *Equity & Excellence in Education*, *38*(4), 269–279. https://doi.org/10.1080/10665680500299650

Soriano, V., Watkins, A., & Ebersold, S. (2017). Inclusive education for learners with disabilities. Study Commissioned by the Policy Department C: Citizens' Rights and Constitutional Affairs, European Parliament. Retrieved from: https://www.europarl.europa.eu/RegData/etudes/STUD/2017/596807/IPOL_STU(2017)596807_EN.pdf

Stepaniuk, I. (2018). Inclusive education in Eastern European countries: a current state and future directions. *International Journal of Inclusive Education*, *23*(3), 328–352. https://doi.org/10.1080/13603116.2018.1430180

*Strogilos, V., & Stefanidis, A. (2015). Contextual antecedents of co-teaching efficacy: Their influence on students with disabilities' learning progress, social participation and behaviour improvement. *Teaching and Teacher Education*, *47*, 218–229. https://doi.org/10.1016/j.tate.2015.01.008

Strogilos, V., & Tragoulia, E. (2013). Inclusive and collaborative practices in co-taught classrooms: Roles and responsibilities for teachers and parents. *Teaching and Teacher Education*, *35*, 81–91. https://doi.org/10.1016/j.tate.2013.06.001

Taub, D., & Foster, M. (2020). Inclusion and Intellectual Disabilities: A Cross Cultural Review of Descriptions.International Electronic Journal of Elementary Education, 12(3), 275-281. DOI: 10.26822/iejee.2020358221.

Thousand, J. S., Villa, R. A., & Nevin, A. I. (2006). The many faces of collaborative planning and teaching. *Theory Into Practice, Digital/Theory Into Practice*, *45*(3), 239–248. https://doi.org/10.1207/s15430421tip4503_6

Tremblay, P. (2013). Comparative outcomes of two instructional models for students with learning disabilities: inclusion with co-teaching and solo-taught special education. *Journal of Research in Special Educational Needs*, *13*(4), 251–258. https://doi.org/10.1111/j.1471-3802.2012.01270.x

*Tzivinikou, S. (2015). Collaboration between general and special education teachers: developing co-teaching skills in heterogeneous classes. *Problems of Education in the 21st Century*, *64*(1), 108–119. https://doi.org/10.33225/pec/15.64.108

UNESCO (2017). *A guide for ensuring inclusion and equity in education*. Paris: UNESCO. Retrieved from: http://unesdoc.unesco.org/images/0024/002482/248254e.pdf

UNESCO. (1994). *The Salamanca Statement and Framework for action on special needs education: adopted by the World Conference on Special Needs Education*; Access

and Quality. Salamanca, Spain, 7-10 June 1994. United Nations Educational, Scientific Cultural Organization, Paris and Ministry of Education Science, Madrid.

United Nations. (2006). Convention on the Rights of Persons with Disabilities. Treaty Series, 2515, 3.

*Vogt, F., Koechlin, A., Truniger, A., & Zumwald, B. (2021). Teaching assistants and teachers providing instructional support for pupils with SEN: results from a video study in Swiss classrooms. *European Journal of Special Needs Education*, *36*(2), 215–230. https://doi.org/10.1080/08856257.2021.1901373

Walther-Thomas, C. S. (1997). Co-Teaching experiences. *Journal of Learning Disabilities*, *30*(4), 395–407. https://doi.org/10.1177/002221949703000406

*Webster, R., & De Boer, A. (2019). Teaching assistants: their role in the inclusion, education and achievement of pupils with special educational needs. *European Journal of Special Needs Education*, *34*(3), 404–407. https://doi.org/10.1080/08856257.2019.1615746

Webster, R., Blatchford, P., & Russell, A. (2012). Challenging and changing how schools use teaching assistants: findings from the Effective Deployment of Teaching Assistants project. *School Leadership and Management*, *33*(1), 78–96. https://doi.org/10.1080/13632434.2012.724672

Weiss, M. P., & Lloyd, J. W. (2002). Congruence between roles and actions of secondary special educators in Co-Taught and special education settings. *The Journal of Special Education 36*(2), 58–68. https://doi.org/10.1177/00224669020360020101

Wrigley, T. (2003). Is 'School effectiveness' Anti-Democratic? *British Journal of Educational Studies*, *51*(2), 89–112. https://doi.org/10.1111/1467-8527.t01-4-00228

Yeo, L. S., Chong, W. H., Neihart, M. F., & Huan, V. S. (2014). Teachers' experience with inclusive education in Singapore. *Asia Pacific Journal of Education*, *36*(sup1), 69–83. https://doi.org/10.1080/02188791.2014.934781

---

* Article resulting from the scoping review